

*Annual Administration Report of the  
Rural Development Department, Bombay  
1939-40-1941/42, 1942/43*

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No. A.N.R. of 1940.

From

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To

THE SECRETARY TO GOVERNMENT,  
Revenue Department, Secretariat, Fort, Bombay.

Poona, the 14th August 1940.

*Subject* :—Annual Administration Report of the  
Rural Development Department for  
the year 1939-40.

Sir,

I have the honour to submit the Administration Report on the working of the Rural Development Department, in the Province of Bombay, for the year ending 31st March 1940.

In view of the reorganization of work relating to rural development sanctioned under Government Resolution, Revenue Department, No. 15/33, dated 8th March 1939, the Rural Development Department came into existence from 1st April 1939 and the agricultural propaganda work, hitherto done by the Agricultural Department was transferred to the Rural Development Department, with effect from 15th April 1939, and the designation of the Registrar of Co-operative Societies was changed to "Registrar of Co-operative Societies and Director of Rural Development". A brief review of the activities of the Rural Development Department from 1st April 1938 to 30th June 1939 has already been given in a special Appendix to the Annual Administration Report on the working of Co-operative Societies for the year 1938-39 :—

## I. ADMINISTRATION.

### GAZETTED STAFF.

*Registrar of Co-operative Societies and Director of Rural Development*—I worked as Registrar of Co-operative Societies and Director of Rural Development for the whole of the period except

from 24th November 1939 to 23rd December 1939 when Mr. S. M. Ikram, I.C.S., Deputy Registrar of Co-operative Societies officiated as Registrar of Co-operative Societies and Director of Rural Development.

*Deputy Director of Rural Development.*—To enable the Registrar of Co-operative Societies to perform satisfactorily his duties as head of the reorganised Co-operative and Rural Development Department, the post of the Deputy Director of Rural Development was created under Government Resolution, Revenue Department, No. 15/33, dated 15th March 1939. Mr. K. V. Joshi who was working as Deputy Director of Agriculture, South Central Division, Poona, in the Agricultural Department, was appointed to hold this post. He took charge of the post on 5th April 1939 and continued to hold it throughout the year under report.

*Chief Marketing Officer, Bombay.*—Dr. T. G. Shirname of the Bombay Agricultural Service, on reversion from the Imperial Council of Agricultural Research, took over the charge of the post on 27th June 1939 and continued to hold it till the end of the year. The Chief Marketing Officer is expected to organize co-operative marketing in Bombay, keep himself in touch with the Bombay market and be a liaison officer between the marketing organizations, traders and consumers in Bombay and the co-operative sale and multipurpose societies in rural areas.

*Cotton Superintendents.*—Mr. V. C. Pavate and Rao Saheb G. P. Pathak who held the posts of Cotton Superintendents at Dharwar and Surat in the Agricultural Department were transferred to this Department with effect from 15th April 1939. Mr. T. V. Nagarshet, Rural Development Inspector, officiated as Cotton Superintendent, Surat, from 3rd January 1940 to 31st March 1940 during the absence of Rao Saheb Pathak on leave.

An additional post of Cotton Superintendent for the Jarila Cotton Scheme in East Khandesh was sanctioned during the year on a temporary basis for three years. The cost of this post is borne by the Indian Central Cotton Committee. Mr. R. B. Nimbalkar who was appointed to officiate in this post, held the post with effect from 1st November 1939 till the close of the year.

*Divisional Superintendent of Agriculture, Deccan Canals, Belapur Road.*—Mr. G. P. Patil, who held this post in the Agricultural Department was transferred to this Department with effect from 15th April 1939 and continued in this post till the end of the year. Mr. Patil is also associated with the working of the Grass-hopper Scheme in the Canal Area under the control of the Director of Agriculture.

*Assistant Registrars of Co-operative Societies and Rural Development Officers.*—Five additional posts of Assistant Registrars of Co-operative Societies were created, thus increasing the number of Assistant Registrars of Co-operative Societies from five to ten. These Assistant Registrars of Co-operative Societies are also Rural Development Officers for their respective charges. The postings in the redistributed charges were actually made from 1st June 1940.

The subjoined statement shows the Officers who held the charges of the Assistant Registrars and Rural Development Officers during the period under report :—

Division.	Name.	Period.	Headquarters.	Charges (Districts).
1	2	3	4	5
Ahmedabad ...	Mr. B. N. Desai ...	1-6-39 to 31-3-40.	Ahmedabad ...	Ahmedabad, Kaira and Panch Mahals.
Surat ...	Mr. R. N. Trivedi ...	1-6-39 to 15-1-40.	Surat ...	Surat and Broach.
	„ Y. T. Desai ...	16-1-40 to 31-3-40.	.....	.....
Jalgaon ...	Mr. S. S. Bhathena ...	1-6-39 to 30-12-39.	Jalgaon ...	East Khandesh.
	„ D. A. Shah ...	31-12-39 to 29-2-40.	.....	.....
	„ N. V. Nayak ...	1-3-40 to 31-3-40.	.....	.....
Dhulia ...	Mr. R. S. Patil ...	1-6-39 to 11-2-40.	Dhulia ...	West Khandesh and Nasik.
	„ S. S. Bhathena ...	12-2-40 to 31-3-40.	.....	.....
Bombay ...	Mr. S. G. Almoula ...	1-6-39 to 31-3-40.	Bombay ...	Bombay, Bombay Suburban and Thana.
Poona ...	Mr. N. P. Bhagwat ...	1-6-39 to 31-3-40.	Poona ...	Poona and Ahmednagar.
Satara ...	Mr. K. G. Prabhu ...	1-6-39 to 31-3-40.	Satara ...	Satara, Kolaba and Ratnagiri.
Sholapur ...	Mr. N. V. Nayak ...	1-6-39 to 20-2-40.	Sholapur ...	Sholapur and Bijapur.
	„ R. S. Patil ...	21-2-40 to 31-3-40.	.....	.....
Belgaum ...	Mr. R. E. Palekar ...	1-6-39 to 31-3-40.	Belgaum ...	Belgaum and North Kanara.
Dharwar ...	Mr. C. B. Huli ...	1-6-39 to 31-3-40.	Dharwar ...	Dharwar.

*Assistant Horticulturist to Government.*—Mr. P. G. Dani who was transferred from the Agricultural Department along with this post, held the post during the period under report.

#### SUBORDINATE STAFF.

The propaganda and demonstration work done by the Agricultural Department was transferred to the reorganized Co-operative and Rural Development Department. This change also necessitated the transfer of the propaganda staff of the Agricultural Department consisting of 46 District Agricultural Overseers, 35 Agricultural Sub-overseers, 30 permanent Kamgars and 50 temporary Kamgars, to this department. In addition, the staff in charge of shikar and pig-killing work, bunding, cotton seed multiplication and seed distribution and work in connection with issue of licences under the Cotton Transport Act, was also transferred to this department. The designation of the Agricultural Overseers and Agricultural Sub-overseers was changed to Rural Development Inspectors and Assistant Rural Development Inspectors, respectively. The Kamgars are also graded with Assistant Rural Development Inspectors and designated as such. The propaganda staff of the Co-operative Department consisting of seven Agricultural Organizers belonging to the Co-operative Department was also merged in the cadre of Rural Development Inspectors. The plan outlined by Government provides for the appointment of one Rural Development Inspector for each revenue sub-division, and of an Assistant Rural Development Inspector for each taluka or peta.

Government also issued orders that all Rural Development Inspectors and Assistant Rural Development Inspectors should be equipped with training in co-operative methods and organization in the Co-operative Training and Education School at Poona subsidised from the Government of India grant. Accordingly, the entire staff is being deputed for training in batches, each batch receiving training for a period of four months.

#### SUPPRESSION OF CORRUPTION.

The policy of Government in stamping out evils of corruption was scrupulously followed. In one case in which an Assistant Rural Development Inspector was involved among other things in temporary misappropriation of Government funds, regular proceedings were instituted and suitable punishment was meted out to the person concerned.

## INDIAN CENTRAL COTTON COMMITTEE.

The following table indicates the grants and expenditure with regard to the various schemes financed by the Indian Central Cotton Committee :—

Serial No.	Name of the Scheme.	Grants, 1939-40.	Expenditure, 1939-40.
1	2	3	4
		Rs.	Rs.
1	Surat Seed Distribution Scheme ... ..	11,438	8,950
2	Plant Puller Propaganda Scheme ... ..	4,435	3,248
3	B. D. 8 Cotton Seed Distribution Scheme ... ..	10,345	8,882
4	Revised Jayawant Cotton Scheme (for all stages).	11,131	9,161
5	Jarilla Seed Scheme, Stages III, IV and V ... ..	19,501	12,792
	Total ... ..	1,03,004	82,883

## II. PREVENTION OF EROSION OF SOIL.

This activity used to be confined practically to the Deccan and Karnatak districts. A beginning has, however, been made in extending it to North Gujerat where a bunding officer has recently been appointed.

In North Gujerat, as a result of intensive propaganda by holding bunding classes, 30 cultivators from 5 villages constructed small bunds and protected about 100 acres of land from erosion. In the districts of East and West Khandesh and Nasik, the departmental staff, with the help of Kamgars appointed from Village Improvement Grants of the respective districts, was able to maintain the progress in this work as in previous years. 13,997 acres distributed over about 250 villages were bunded. An intensive campaign of bunding was carried out in Yecla and Malegaon talukas of Nasik district, with the aid of a tractor. Expenditure on the tractor work was met from Village Improvement Grant. This work was spread over 25 villages, and basic bunds were constructed over 1,195 acres of 300 survey numbers belonging to 24 Khatadars. Out of this area over 2,600 acres have been completed. In the Sholapur, Poona, Ahmednagar and Satara districts, the work of construction of small bunds was done on 2,055, 1,654, 400 and 400 acres respectively. In the Belgaum district, work was done on 675 acres. In the Dharwar and Bijapur districts also, large areas were surveyed and bunded during the year. In the Poona and Satara districts, besides bunding, levelling of land was done in some villages. Advice given to agriculturists for the construction of waste weirs, was followed up in some cases by actual construction being carried out under instructions or supervision of the propaganda staff.

In Yeola taluka, bunding survey on a village scale is being planned at one centre and with this object in view preliminary survey has been taken up. A better farming society for undertaking such work is being organized in the Poona district. In the Dharwar district, 4 villages have been induced to carry out bunding on co-operative lines.

To bring home to cultivators the necessity of preventing damage to land by erosion and to train local talent in the technique of the methods to be adopted, bunding classes were held in different rural areas. During the year under report, 47 such classes were held, details about which are mentioned below :—

Tract.	Number of classes held.	Number of persons trained.
1	2	3
North Gujerat ... ..	9	425
North Deccan ... ..	11	509
South Deccan ... ..	9	406
Karnatak ... ..	18	858
Total ...	47	2,198

Each of these classes was held for 12 days. Admission was restricted to persons who owned and cultivated lands. These classes were discontinued from the middle of March, as the services of the bunding staff were urgently required for carrying out survey work which was heavily in arrears.

Persons desirous of improving their lands by bunding and levelling, generally apply for tagavi advances ; such applications are either referred to or submitted through the bunding officers of the tract. Besides these several persons who are prepared to meet the expenditure from other sources, apply for technical advice. The lands of such cultivators are surveyed and plans and estimates prepared and supplied to the applicants. There has been an appreciable increase in the number of such applications resulting in an increasing demand for the services of bunding officers. In the Sholapur district in particular, the Collector has encouraged bunding work by liberal grant of tagavi for the purpose, as a scarcity



measure. The following statement contains information about the receipt, disposal and balance of applications as at the end of the year :—

Tract.	Number of applications or cases.		
	Number on hand during the year including the balance of the previous year.	Disposed of during the year.	Pending for next year.
	2	3	4
Gujerat ... ..	59	6	53
Deccan ... ..	430	265	165
Karnatak ... ..	214	15	199
Total ... ..	703	286	417

There is only one permanent bunding officer designated as "Embankment Officer" at Dharwar. Two bunding officers—one for the Bijapur District and one for South Deccan—are being continued temporarily year after year. One bunding officer for North Deccan has been sanctioned from the current year and the post of bunding officer for Gujerat has also been created on a temporary basis. In Ahmednagar and Sholapur districts two local sub-overseers with engineering qualifications were employed from Village Improvement Grants.

The activities undertaken by the bunding staff show that there is a growing demand for technical advice on bunding from the agriculturists and it was possible to meet this demand to a limited extent in view of the limited staff available for the purpose. The problem of soil erosion, especially in the Deccan, is most serious as the run off of water after rain removes large quantities of good soil from the cultivated areas and thus renders the land less cultivable and in extreme cases such erosion puts areas of land actually out of cultivation. Much can be done to avoid this by scientific methods of putting up small embankments or "bunds" with proper provision of waste weirs for any excessive run off. Both these items require technical work of surveying and levelling and preparation of plans and layouts and guidance during the progress of work. It is, therefore, necessary to provide for both these items before any plans for bunding could make headway. With a view to secure this object, a comprehensive scheme has recently been formulated and it is proposed to bring it into force shortly.

### III. EXTENSION OF DRY FARMING METHOD.

In areas where rainfall is deficient or precarious, adoption of methods of cultivation calculated to help conservation of moisture and make it available for plant growth is very necessary. These methods as successfully adopted on experimental farms are being popularized through the district staff and consist mainly of protecting surface soil with bunds on contour lines, levelling the field, interculturing, etc. While these practices are indispensable for *kharif* as well as *rabi* crops in scarcity tracts, most of them have their utility even in other tracts particularly for *rabi* crops. They have thus a wide application and deserve popularization, calling for intensive propaganda on a large scale.

In the Bijapur district, five field-scale demonstrations were held and parties of cultivators from villages within a radius of ten miles from the centres were collected to take advantages of these demonstrations. In all, 1,335 persons from the rural areas attended these demonstrations and many of them showed keen interest in the various processes demonstrated. In the Dharwar district, propaganda was carried out in the Navalgund taluka and the Muddagi peta. In the Deccan Canal tract, demonstrations of these methods were given at three centres. Small bunds and repeated interculturing were advocated in Khandesh district.

In the Shalapur district, it is estimated that as a result of propaganda these methods are adopted on about 30,000 acres. In the Poona and Satara district, 1,100 and 7,450 acres, respectively, were brought under all or some of these methods. In the Ahmednagar district, one or more of the several items of the dry farming method were followed on about 5,600 acres.

Wider sowing of crops, especially cotton is being advocated in Gujerat. Necessary implements, such as, wider seed drills, hoes, etc., were made available by the department where necessary. In some places useful implements are being made locally.

### IV. MANURES.

*Farm yard manure.*—Farm yard manure deteriorates if not properly stored. Katcha pits have been found to be cheap as well as advantageous. The need for such pits was advocated and they were dug in almost all districts. The largest number of pits was made in North Deccan districts, viz., 2,054 spread over 60 villages. In the Surat district, 6 pucca pits were constructed.

*Compost.*—All farm vegetable waste if properly treated can be turned into valuable manure known as compost. Compost making was demonstrated at 2 places in Gujerat, 42 places in the Deccan and 10 places in Konkan districts. In North Deccan districts a compost-man was specially employed who prepared 5,190 cart loads of this manure for several cultivators in different villages. In the Satara district, 160 cart loads were prepared in 24 places.

*Sann green manuring.*—Sann when grown in situ and ploughed in, is the cheapest form of organic manure. This practice is not unknown to agriculturists of this Province but its extensive adoption requires propaganda. Sann crop is almost universally utilized for green manuring; in Gujerat, however, Dhaincha is being introduced. This practice is steadily increasing for manuring sugarcane, tobacco and other irrigated crops. In Khandesh districts, this kind of manuring for dry crop of wheat has been extending. Sann crop has to be ploughed in before seed is set, and because it does not give good seed in the kharif season, large quantities of seed have to be brought every year from the Tapti Valley tract of the Surat district and neighbouring Baroda State territories where it is grown as a second crop after rice. This supply of seed has to be arranged for and accordingly 47,100 lbs. and 3,42,550 lbs. of seed were purchased for utilization in Gujerat and the Deccan, respectively.

*Bone manure.*—Bone is generally used as manure after crushing. A special Kangar was appointed to tour in the Nasik and Khandesh districts and to demonstrate the method of preparing bone manure. He prepared 1,09,627 lbs. of crushed bone manure during the year. In Karnatak and Konkan, demonstrations were held at 20 and 3 places respectively. The use of bone meal for fruit trees and for rice crop in Kanara district is increasing steadily. In Karnatak alone, 40 tons of this manure were distributed.

*Oil cake and commercial fertilizers.*—The use of these manures is also increasing. Most of the Taluka Development Associations have taken up the business of supplying the demand for them. Irrigated tracts are the chief centres of trade in this respect. The Deccan Canal areas alone took up 75,000 tons of oil cake and 7,000 tons of artificial fertilizers. Besides, the following quantities were distributed by departmental officers and taluka development associations :—

Division.	Oil cake.	Fertilizers.
	Lbs.	Lbs.
Gujerat	1,94,300	1,52,490
Deccan	8,24,786	2,84,456
Karnatak	80,000	3,39,280
Konkan	.....	3,09,120

*Denatured salt.*—This manure is mostly used for mango, coconut and other fruit trees in the coastal districts. 405 maunds of this material were distributed in Gujerat and 975 maunds in Konkan.

## V. INTRODUCTION OF IMPROVED METHODS OF AGRICULTURE AND IMPROVED IMPLEMENTS.

### IMPROVED METHODS.

Propaganda in this direction consisted particularly in advocating the use of various types of improved methods of which the following deserve special mention :—

Grading of seed with suitable sieves, dibbling of seed, wider sowing of crops, planting of sugarcane in ridges and furrows instead of in flat beds, use of power crushers and improved furnaces and wider transplanting of rice seedlings, etc.

Grading of seed with sieves is important in that this practice enables easy rejection of bad and undeveloped seed. Grading was taken up as an item of propaganda in the Deccan. In North Deccan, 62,220 lbs. of wheat and bajri seed was graded. Similarly in South Deccan, 1,08,081 lbs. of seed, such as, jowar, wheat, groundnut and bajri was sieved and graded in view of the popularity of the practice.

Wider sowing of crops is an important practice, which not only effects saving in the seed rate but also facilitates interculturing and helps to increase the yield. This practice is growing in the Gujerat and Deccan divisions, and is advocated for crops like cotton, jowar, groundnut and wheat. In addition to wider sowing in Gujerat, the practice advocated in the past of dibbling of seed was continued during the year and popularized to a larger extent. Wider planting of jowar was specially advocated in the districts of Sholapur, Belgaum and Dharwar. In the Sholapur district alone, 31,208 acres were sown under this system. In the Thana district, wider transplanting of rice seedlings is extending.

Planting of sugarcane in ridges and furrows instead of in flat beds is another useful practice that is extending in all districts of Gujerat wherever sugarcane is grown. The use of power crushers and improved furnaces for boiling gul is keeping close pace with the other useful practices in sugarcane cultivation.

Such furnaces were constructed at 10 places in South Gujerat. 58 improved furnaces were constructed in the North Deccan, 6 in the Satara district and 3 in the Sholapur district. Cultivation of sugarcane on the improved method and preparation of gul formed an important feature of agricultural operations under introduction in the Kolaba district.

### IMPROVED IMPLEMENTS.

The work under this head consists in (1) bringing to the notice of cultivators advantages of new and improved implements and appliances by demonstrating their use to individual cultivators or to groups of cultivators, (2) arranging for the supply thereof on requisition and (3) making them available on hire for those who cannot purchase them.

Iron ploughs, iron levellers, ridgers, improved harrows, stone rollers for jowar, winnowing fans, chaff cutters, sprayers, dust guns, and plant pullers are principal among the improved implements, the use of which is advocated in different parts of the Province. In Gujerat, plant pullers, iron ploughs, improved harrows and hoes were supplied. In the Deccan districts iron ploughs and iron mots were distributed. In the Poona, Nasik and Khandesh districts, wooden petaris (scrapers) are being introduced as they are cheap and light for local bullocks to work with. They can be used for levelling as well as for constructing earthwork bunds. In the Ahmednagar, Sholapur, Bijapur, Belgaum and Satara districts, iron ploughs have become common. In the Dharwar district, the use of stone rollers and wheat threshers is steadily spreading.

Experience has shown that the demand for iron ploughs and its accessories has been steadily on the increase and local agencies and dealers in such implements have been able to supply this demand. Departmental implement depôts, Implements and Agricultural Requisites Societies, Taluka Development Associations and Taluka Demonstration Centres have proved very useful agencies in this respect. In many villages, local traders and sawkars have also taken up this kind of work. In the Nasik and Khandesh districts, there are a large number of Taluka Development Associations which are engaged mainly on this work. (The number of implements stocked by these associations was 902, the hire charges realized during the year under report being about Rs. 17,017.)

Six and 17 power-pumping plants were set up in North and South Gujerat, respectively. In North Deccan 7 such plants were installed. Similarly, 13 such plants were installed in the Belgaum district and 3 in the Kanara district.

## VI. DISTRIBUTION OF IMPROVED SEEDS.

Under this head, two kinds of activities are carried on. One is intensified production and distribution of improved seed and the other is the supply of pure improved seed which is not locally available to individual agriculturists from reliable sources. In the first category are included several cotton schemes most of which are partly or wholly financed from the funds of the Indian Central Cotton Committee. The work under these schemes is described separately later. As regards improved seed other than cotton, the method of multiplication and distribution is as under.

Pure seed obtained from a Government Farm is distributed to selected persons on condition that their produce should be sold for seed purposes. The produce from seed growers has sometimes to be purchased and stocked by the Department. Finance for the stocking of seed has been made available from Village Improvement Grants for wheat in Khandesh and paddy in the Karnatak.

In North Gujerat pedigree seed of improved cottons, bajri No. 207, wheat Pusa No. 52 and 4, wheat Bansi No. 224 and Bansipalli No. 803, gram yellow, maize white, jowar deshi No. 8, castor No. 20, groundnut spanish peanut and tobacco K-49, Gandiu No. 6 and K-6 were distributed.

In South Gujerat 700 lbs. of Budh Perio No. 53 produced on the Surat farm were distributed in Chorasi, Bardoli, Olpad and Jalalpure talukas of Surat district. Similarly, seed grown by registered seed growers was distributed in the above talukas as well as in Mandvi taluka.

In the North Deccan, schemes for wheat Bansi No. 224, Bansi No. 168, Bansipalli No. 803 and Pusa No. 4 are being worked. Bansi No. 224 wheat seed was grown on 9 seed farms covering an area of 108 acres, and by 130 seed growers on 790 acres. Bansi No. 168 seed was similarly multiplied on 9 seed farms and by 36 registered seed growers. Bansipalli No. 803 was multiplied on 3 farms and by 8 seed growers on 75 and 145 acres, respectively. Pusa No. 4 wheat seed was similarly grown on 24 seed farms and by 35 seed growers on 208 acres in all. 12,000 lbs. of Bansi No. 168, 52,200 lbs. of Bansipalli No. 803 and 44,920 lbs. of Pusa No. 4 thus produced are available for distribution. For the Nasik district jowar maldandi 35-1 was grown on 45 acres of a seed grower's farm. Seed for this crop was obtained from the Mohol farm. 7,200 lbs. of the resultant seed is now available for distribution. Similarly, Nialo jowar is being extended in West Khandesh.

In the South Deccan, pedigree seed was given to registered seed growers at cost price of local seed on condition that the multiplied seed should be sold for seed purposes. 26,950 lbs. of Pusa No. 4 wheat—11,900 lbs. of Pusa 111 wheat and 41,000 lbs. of maldandi 35-1 jowar seed thus produced are available for seed purposes.

In the Karnatak, the improved paddy strains produced on the Mugad farm were purchased and distributed to registered seed growers. The crop of these persons was rogued. The produce of these seed growers is held in stock for selling for seed purposes only. 2,400 bags (4,32,000 lbs.) have thus been stocked this year. This stock is subsidized at the rate of Re. 0-8-0 per bag. In the

Belgaum district, wheat Bansipalli No. 808, jowar Bilichigan and Fulgar, groundnut Pondicheri No. 8 are under extension and have now covered 14,000, 10,455 and 150 acres, respectively.

In the Konkan, paddy seed produced on the Kumta, Ratnagiri and Karjat farms was distributed to seed growers whose produce is further distributed amongst cultivators. The following varieties of improved crops are under extension in the Ratnagiri district :—

Paddy Patni No. 6, Waksal No. 207, Panvel No. 61, Bhadas No. 79, Kolamba Nos. 401, 540 and 184, Nagli A16, B11 and E31.

In the Ratnagiri district 12 grain depots have been established and it is now proposed to supply improved seed of paddy and Nagli to the cultivators of 7 or 8 villages round about each Depot.

The produce of Kolamba paddies K42, K226, K412, K540 produced on the Karjat Farm were distributed in Thana, Kolaba and Ratnagiri districts. The whole of this stock was given to registered seed growers. Besides this, seed of Kolamba K42, K412, K540, K184, K226, K149 in all 3,008 lbs. from the demonstration Farms at Karjat was similarly distributed to seed growers in Thana district. In addition to this, 60 registered seed growers from Karjat, Pen and Panwel talukas distributed 60,000 lbs. of improved paddy seed to their tenants or other agriculturists. Moreover, 15,414 lbs. of seed was distributed in a concentrated area along Khopoli-T'en road.

The quantities of pure seed distributed this way are shown in the following statement :—

*Statement showing pedigree seed distributed for further multiplication.*

Improved Seed.	Quantity distributed in lbs.	Tract in which distributed.
Cottons ... ..	1,00,936	North Gujerat.
Jowar deshi No. 8 ... ..	6,322	Broach district.
Jowar Bush Perio No. 53 ... ..	20,935	Surat district.
Jowar Maldandi 85-1 ... ..	2,010	Poona and Ahmednagar districts.
Wheat Pusa No. 52 ... ..	49,048	North Gujerat.
Wheat Pusa No. 4 ... ..	11,079	All districts in Gujerat and Deccan.
Wheat Pusa No. 111 ... ..	1,344	Ahmednagar and Poona districts.

Improved Seed.	Quantity distributed in lbs.	Tract in which distributed.
Wheat Bansi No. 224 ... ..	55,920	Gujerat and East Khandesh.
Wheat Bansi No. 168 ... ..	1,200	West Khandesh.
Wheat Bansi palli No. 808 ... ..	7,524	North Gujerat and Nasik districts.
Bajri No. 207 ... ..	11,329	North Gujerat.
Paddy Patni No. 6 ... ..	43,272	Ratnagiri district.
Waksal No. 207 ... ..		
Panvel No. 61 ... ..		
Bhadas No. 79 ... ..		
Kolamba Nos. 401, 540 and 184 ... ..		
Paddy Kolamba No. 42 ... ..	8,839	Thana, Kolaba and Ratnagiri districts.
Paddy Kolamba No. 226 ... ..	890	Thana and Kolaba districts.
Paddy Kolamba No. 412 ... ..	331	Thana, Kolaba and Ratnagiri districts.
Paddy Kolamba No. 540 ... ..	2,376	Do.
Paddy Kolamba No. 134 ... ..	301	Thana district.
Paddy Kolamba No. 149 ... ..	605	Do.
Nagli ... ..	1,347	Ratnagiri district.

Apart from the seed distribution of major crops detailed above seed of other improved crops of minor importance and reliable seed of other crops were supplied to order. The following statement gives details of these operations :—

Serial No.	Seed.	Quantity distributed in			
		Gujerat (4 districts).	Deccan (8 districts.)	Karnatak (3 districts.)	Konkan (4 districts.)
		Lbs.	Lbs.	Lbs.	Lbs.
1	Cotton ... ..	.....	1,24,079	.....	.....
2	Jowar ... ..	5,447	30,365	26,793	.....
3	Wheat ... ..	2,070	25,362	1,10,566	.....
4	Bajri .. ..	.....	45,565	.....	.....



Serial No.	Seed.	Quantity distributed in			
		Gujerat (4 districts).	Deccan (8 districts).	Karnatak (3 districts).	Konkan (4 districts).
		Lbs.	Lbs.	Lbs.	Lbs.
5	Paddy ...	13,300	3,540	12,750	12,693
6	Nagh ...	.....	290	.....	.....
7	Groundnut ...	7,480	20,271	7,600	.....
8	Sugarcane ...	11,700 sets.	30,100 canes.	.....	.....
9	Lucerne ...	1,225	6,384	.....	.....
10	Fodder crops ...	680	.....	.....	.....
11	Tobacco ...	.....	10 ozs.	.....	.....
12	Vegetables ...	187	.....	.....	.....
13	Potatoes ...	.....	2,00,100	.....	.....
14	Others ...	527	.....	.....	.....

#### COTTON EXTENSION SCHEMES.

The following schemes for the intensified production and distribution of cottons are in operation in the various cotton growing tracts :—

1. B. D. 8 (Broach Deshi 8) Cotton Extension Scheme for the Broach district.
2. Surat Seed distribution scheme for the Surat district.
3. Jarila Cotton scheme for Khandesh districts.
4. Jayawant cotton scheme for Dharwar-Kumta, Bagalkot and Bijapur areas.
5. Gadag No. 1 scheme for Gadag and neighbouring area.
6. Banilla extension scheme.

The schemes mentioned above are partly or wholly financed by the Indian Central Cotton Committee. In all these schemes seed is grown in successive stages under controlled conditions until in its final stage it reaches the maximum area through general distribution.

Roguing of the standing crop, arrangements for separate ginning, collection of pure seed, stocking of the seed till it is required by cultivators and arrangements for its distribution at several centres are attended to by Cotton Superintendents and special staff employed under them for the purpose. Expenses on account of the roguing of the crops and subsidies for the production of pure seed and expenditure on similar items are borne by the Indian Central Cotton Committee. The seed is purchased where necessary from the Personal Ledger Account and its distribution is organised either through approved agents, individual seed growers, Taluka Development Associations, Purchase and Sale Unions or Cotton Sale Societies.

In view of the necessity for issuing pure seed to cultivators, the roguing operations are very important and they are carried out in the reserved area of the seed-growers. The details of such work done and quantity of seed handled are given below:—

*B.D. 8 Scheme.*—168,520 lbs. of cotton seed was purchased from the controlled area for distribution in the district for sowing in the year 1940-41. Besides, 860 lbs. of seed grown on Broach Farm will be supplied to persons selected in groups for further multiplication. The controlled area was inspected and the purity of the crop ascertained. The area under B.D. 8 cotton during the year under report was 30,951 acres out of which 12,718 acres were under control.

*Surat A.L.F. 1027 scheme.*—The total area under departmental supervision came to 17,874 acres. This includes 1,684 acres grown with pedigree seed from the Surat Farm. The area under inner reserved and outer reserved areas was as under:—

Inner reserved.		Outer reserved.	
No. of villages.	Area.	No. of villages.	Area.
	Acres.		Acres.
8	1,687	71	16,188

The total quantity of cotton seed purchased was as follows:—

Pedigree resultant seed.	General seed.	Total seed.
Lbs.	Lbs.	Lbs.
3,42,865	19,49,483	22,92,348

18,207 lbs. were also obtained from the Surat Farm making the total to 2,310,555 lbs. This seed was distributed as under :—

	Lbs.
(1) Through Departmental depôts at 12 places ... ..	976,820
(2) Through co-operative cotton sale societies...	755,735
(3) Supplied to Rajpipla State ... ..	578,000
Total ... ..	2,310,555

In addition the distribution work was also done by other agencies. The Hansot Society, which distributed to its members 57,800 lbs. of this seed, deserves special mention.

*Jarilla Scheme.*—The seed of this cotton was distributed during the year as under :—

	Lbs.
(1) Pedigree seed obtained from the Jalgaon and Bhadgaon Farms and distributed to registered seed growers at 6 centres ... ..	25,560
(2) Seed produced from the above supply and further distributed ... ..	485,976

Moreover, 173,000 lbs. of seed has been distributed by registered seed growers.

All the area covered with departmental seed, which comes to 30,000 acres, is controlled area.

Seed from this area was collected and stocked for distribution in the next year. The details of this are as under :—

	Lbs.
(1) Seed from area sown with farm seed ... ..	42,700
(2) Seed further grown from this supply ... ..	513,742

In addition to this quantity, 4,142,708 lbs. of seed have been stocked by registered seed growers and merchants for general distribution.

*Jayawant Scheme.*—During the year under report, 6,027,745 lbs. of seed was distributed in 7 centres. This seed has covered nearly 628,700 acres out of which 97,749 acres are under control.

*Gadag No. 1 Scheme.*—1,335,200 lbs. of seed were distributed in two centres in all the stages during the year. This seed has covered nearly 133,515 acres out of which 31,120 acres are included in reserved area, seed from which would be collected and stocked for distribution next year.

The period of the Jayawant and Gadag No. 1 cotton schemes expires on 31st May 1941, and the question of a further extension of these schemes is separately under consideration. The schemes are being worked with the help of subsidies mostly through approved agents and in places where there are co-operative cotton sale societies through these bodies or through both these agencies.

*Banilla Extension Scheme.*—This scheme is intended for spreading Banilla cotton in the Deccan Canal tract. This seed is obtained from Khandesh, multiplied on the Kopargaon Farm and through registered seed growers and distributed to individual agriculturists.

Finance is an important factor in all these seed schemes. There is always some interval between the time when seed is ready and the time when it is required by cultivators. Cultivators are as a rule in need of money and they cannot afford to buy the seed when it is harvested and keep it till it is required for sowing. During this interval, the seed has to be purchased for cash and stocked till required for distribution.

Government has sanctioned Rs. 1,83,000 for such quasi-commercial purposes. The allotment is placed in a Personal Ledger Account which was at the disposal of the Director of Agriculture till 1st August 1939 when the account was transferred to the Registrar of Co-operative Societies and Director of Rural Development. Advances are made from this fund as and when required for purchasing seed, manures, implements, insecticides, fungicides, etc. When the articles are sold out, recoveries are credited to the above account and advances recouped.

The total amount of advances from this account utilised for different purposes was to the extent of Rs. 1,42,390 as per details indicated below :—

Purpose of advance.	Amount advanced. Rs.
Cotton, B.D. 8 seed ... ..	2,900
Cotton, Surat No. 1 and A.L.F. 1027 ... ..	1,03,000
Cotton Jarilla ... ..	21,274
Cotton Jayawant ... ..	300
Wheat ... ..	5,250
Tobacco ... ..	1,200
Jowar, Bajari, Paddy and Sann seeds ... ..	1,124
Manures ... ..	3,518
Sulphur dust ... ..	397
Barium Carbonate ... ..	600
Sprayers ... ..	2,194
Plant Pullers ... ..	633
Total ... ..	1,42,390

## VII. CONTROL OF INSECT PESTS, DISEASES OF CROPS AND PROTECTION OF CROPS FROM WILD ANIMALS.

The Propaganda Staff continued their efforts with regard to control measures against insect pests and diseases of crops. In some cases, where individual efforts failed to show appreciable abatement of the damage wrought, organised campaign had to be conducted effectively to control wide-spread menace. Insecticides and fungicides were, therefore, distributed and necessary appliances for their use were also made available on an extensive scale. Some of these materials like sulphur packets, dust guns, plant pullers, copper sulphate and lime had to be stocked from Personal Ledger Account.

In North Gujerat, 918 sulphur packets were sold for use as a preventive against *smut* disease on Jowar. A mildew disease is known to occur on jiru but it was controlled by dusting the crop with sulphur. 1,600 acres of this crop were, accordingly, dusted in the year under report. 317 mango trees were dusted with sulphur against mango hoppers. A disease of mosambi has been found to be causing considerable damage in mosambi gardens. This can be cured by spraying the tree with Zinc Sulphate solution. 1,500 trees were accordingly treated with good results. Jackals and wild pigs which have proved a menace to irrigated crops particularly to sugarcane cultivation, were killed by baiting with strychnine and arsenic; packets containing these chemicals were stocked for distribution and 355 packets were sold.

In South Gujerat, a large number of mango trees was dusted with sulphur, 10 tons of sulphur having been sold for this purpose. For jackals and rats, 400 strychnine packets were distributed. In the Broach and Surat districts, Cotton Boll-worm annually takes a heavy toll. The only known method of controlling this pest is to pull out cotton stalks (stubble) after harvest. The work was concentrated in the Chorasi, Olpad and Ankleshwar Talukas of the Surat District and the Broach, Vagra and Jambusar Talukas of the Broach District. A scheme financed from the funds of the Indian Central Cotton Committee has been in operation from the year 1934-35. From these funds plant pullers are sold to cultivators at concession rates and a temporary staff of Kamgars is engaged for about 2 to 3 months every year. These Kamgars organise and supervise the work from field to field and from village to village. During the year under report, 1910 plant pullers were sold. The total number of plant pullers in the district distributed till the end of the year is over 10,000. It is gratifying to note that more than 92 per cent of the area in the talukas mentioned above was covered during the year. The good work is, however, often hampered by a few dissentient cultivators in whose fields the pest continues and spreads. The remedy lies in enacting suitable legislative measures with a view to coerce the dissentient minorities. This question is separately under the consideration of Government.

In the North Deccan, 12,339 packets of sulphur for controlling smut on Jowar were distributed. 285 and 76 acres of lucerne and other irrigated crops were sprayed with tobacco water and fish oil rosin soap to save them from *Aphis*. Similarly, *Leafcurl* disease of chillies was controlled by spraying Nicotine sulphate on 109 acres. *Tambera* of Potatoes and *Mildew* of peas were controlled by dusting with lime and sulphur, or sulphur only. 50 acres of the former and 40 acres of the latter being saved. 76 mango trees were dusted with sulphur and *stem borer* was removed from 58 trees. *Loranthus* was removed from 844 trees. 15,900 mosambi and santra trees were treated with creosote oil for *Gummosis* and stem borer was removed from 2,030 trees. To protect santra and mosambi fruit from *Fruit Moth*, 370,840 paper bags were used, while it is estimated that 1,142,450 such bags were prepared by cultivators who made extensive use of such bags. 404 ant-hills were dug out and the queen ants removed to put a stop to the menace caused by white ants. Rats were reported to have wrought considerable damage to wheat and sugarcane. 172 acres of the former and 32 acres of the latter were treated with cynogas fumigation and lead arsenate poisoning. Amongst the other control measures may be mentioned the good work done by the Co-operative Crop Protection Societies in the East Khandesh district, which employed a special staff of watchmen to prevent the depredations caused by cattle and thieves.

In the South Deccan, 13,218 sulphur packets were sold. 60 acres of chillies, 162 acres of potatoes and 54 acres of peas were treated with tobacco water, lime and sulphur, and sulphur, for leafcurl, tambera and mildew, respectively. 142 acres of lucerne and other irrigated crops were sprayed with tobacco water for aphid. 130 mango trees were dusted with sulphur and stem borer taken out from 15 trees. 1,259 mosambi trees were treated for Gummosis with creosote oil, and 1,305 citrus trees were treated with fish oil rosin soap for aphid. 6 acres of mosambi fruit trees were protected from fruit moth by putting paper bags. 10,000 lbs. of potatoes were fumigated with petrol for potato moth before storing. In the Canal area alone, 128 lbs. of creosote oil and 1,200 lbs. of fish oil rosin soap, the former for Gummosis and the latter for a scale insect on mosambi, were supplied. Grass-hoppers have been doing damage to sugarcane in the Pravara Canal area. Measures for their control, such as digging of head-lands and destruction of eggs and catching young hoppers with tarred tins, are in progress. Wingless grass-hoppers made their appearance in the Satara district also. Measures to control this pest were demonstrated on 70 acres in 8 villages. 4 lbs. of arsenic and 300,000 pills of arsenic acid were distributed for rats. In the Sholapur district, rats were a source of great anxiety. Adequate control measures were adopted in time to lessen the severity of the menace. A special grant of Rs. 3,000 was sanctioned by Government which was utilised in the purchase of fumigating pumps, cynogas and barium carbonate. The processes adopted viz., fumigation with chilli fumes and cynogas and baiting with Barium carbonate proved sufficiently effective.

In the Karnatak districts, 9,776 packets of sulphur were distributed for dusting jowar seed. In the Dharwar district, three demonstrations were given for the control of *Aphis*. Control of grass-hoppers by the use of tarred tins was demonstrated in 20 villages. 60 lbs. of Barium Carbonate was distributed for control measures against rats. In the Belgaum district, 600 mango trees were dusted with sulphur. In the Bijapur district, the rat menace was very severe, and threatened to cause great damages to groundnut, jowar and wheat crops. Control measures on the same lines as in Sholapur were adopted and a regular campaign was planned out with the co-operation of the Wilson Anti-Famine Institute at Bijapur. Though these operations were partly held up in the beginning owing to shortage of barium carbonate, the results were, on the whole, satisfactory.

In the Konkan, the Ratnagiri district used 8,100 lbs. of sulphur for dusting 11,100 mango trees. At Bassein in Thana district, intensive efforts were made to extend the use of Bordeaux Mixture against Betelvine wilt. In the Kanara district, an intensive campaign against *Koleroga*—a disease of Betelnuts, is in progress. A scheme for carrying out operations against this disease by the spraying of Bordeaux Mixture is approved by Government. The sprayers required are either owned by the Rural Development Boards or Village Improvement Committees. Their upkeep and renewal of parts is looked after by the Rural Development Department. The material for the mixture, such as, Copper Sulphate, Lime, etc., is stocked from the Personal Ledger Account, at convenient centres. Incidental charges for stocking as well as for distribution amongst garden owners are borne by the Rural Development Department. Spraying operations are carried on and supervised by a special staff appointed for the purpose by the department. The cost of materials is recovered from the garden owner for which he is granted tagai by the Revenue Department. 3,563 acres of gardens were sprayed during the year under report.

Protection from wild animals is a special branch of activity carried on by the Shikar Officer with his staff. The work is carried on mainly through the gun club movement which is becoming increasingly popular and is spreading in tracts where such work was initiated by the Shikar staff.

The following table gives an idea about the results achieved :—

Serial No.	District.	Number of clubs or centres.	Number of wild animals killed.		
			Figs.	Blue bulls or Deer.	Total.
1	Kaira ...	3	22	196	218
2	East Khandesh ...	10	1,164	301	1,465
3	Satara ...	23	252	.....	252
4	Bijapur ...	1	13	.....	13
5	Dharwar ...	10	274	28	302
6	Belgaum ...	7	279	.....	279
7	North Kanara ...	9	170	.....	170
8	Kolaba ...	3	36	5	41
	Total ...	66	2,210	530	2,740

In East Khandesh, the shikar work was subsidized by the District Rural Development Board to the extent of Rs. 2,000.

In the Dharwar district, the co-operative fencing societies, numbering in all 11, have made a very useful contribution in this direction.

In the Kanara district, the monkey is a great source of menace particularly to Banana and Coccoanut plantation. There is a general aversion to the killing of monkeys. Nevertheless, hunting operations resulted in the destruction of 2,000 animals.

#### VIII. *Development of special tracts.*

*Deccan Canals area.*—Sugarcane being the principal money crop of the tract, the question of sugarcane manuring has assumed great importance. Use of artificial fertilisers and oil-cakes is on the increase. The supply of organic manure, however, which is very essential, is very inadequate. The practice of sann green-manuring is becoming increasingly popular. 250,000 lbs. of sann seed was distributed through depots and merchants. The manure, besides being cheap, leads to savings in weeding charges and helps to maintain the soil texture.



Attempts were continued to extend Banilla cotton in the tract. 40,000 lbs. of seed from registered seed growers, to whom seed from Kopergaon Farm was given last year, was collected and distributed on the Pravara and Nira Canals. In addition, 19,330 lbs. of this seed was distributed to agriculturists outside this area. Other seeds, such as, Akola Bajri, Nilwa Jowar, Lucerne, Dhaincha and vegetable seeds were also supplied. The following improved crops were introduced or extended :—

Name.	Number of sets or lbs. distributed.
	Sets.
(1) Sugarcane, Co. 419, Co. 413, Co. 421, Co. 426, Co. 414	1,422,350
	Lbs.
(2) Jarilla Cotton	4,310
(3) Groundnut K. 1	37,200
(4) Groundnut K. 3	14,180
(5) Jowar-Maldandi 35-1	15,560
(6) Wheat-Pusa 111	9,084

There are nine departmental depôts where improved implements are kept on hire. Rs. 452-10-3 were collected as hire during the year. Some of the implements were purchased from Sir Sassoon David Trust Fund and hire collected from these, viz., Rs. 46-2-0 was remitted to the Director of Agriculture on behalf of that fund. The following implements were supplied to order—

Implement.	No.
Sugarcane crushers	4
Iron ploughs	25
Ridgers	16
Petaris-levellers	40
Improved seed-drills	30
Harrows and cultivators	24
Seed grading sieves	200
Sacchrometres	40

Grading of seed is being extended and 34,000 lbs. of jowar seed was graded for 280 cultivators in 80 villages. Sann green-manuring for Jowar and Wheat is being pushed on and about 5 to 10 per cent. of the area under these crops has been covered. Improved varieties of crops, deep ploughing, early and wider planting, earthing up with sabul plough, interculturing, economic top dressing, power crushers, scum strainers, sacchrometres and improved furnaces in the case of sugarcane, dibbling of cotton, early sowing of cotton in hot weather with irrigation are other items under extension in the tract.

One of the special problems of the Pravara Canal Area is the control of grasshopper pest which is causing considerable damage to the sugarcane cultivation. The Divisional Superintendent of Agriculture, Deccan Canals, is associated with the working of a comprehensive scheme for the control of this pest. The scheme is under the administrative control of the Director of Agriculture. This campaign has yielded satisfactory results in as much as the value of crops estimated to have been saved through it, is Rs. 31,00,000.

*Cotton Tracts.*—In order to improve the quality of cottons of different tracts the following measures are undertaken :—

Cotton Control Act prohibits the growing of inferior cotton like Ghogari in Surat and Broach Tract. In order to ensure the purity of crops, certain areas have been declared as protected areas. There are eight such protected areas, viz, (1) South Surat Area, (2) Surat Area, (3) Olpad Area, (4) Ankleshwar Area, (5) Narbuda Mahi Zone, (6) Bagalkot Area, (7) Bijapur Area and (8) Kumta-Dharwar Area. Transport of cotton or cotton seed from outside into these areas or from one area to another area is prohibited except under licences. To control this ingress check stations are provided on principal roads on the boundaries of these areas. The inspection of these check stations is one of the duties of Cotton Superintendents. The power of granting licences under the Cotton Transport Act, which was formerly exercised by the Director of Agriculture for transport has been delegated to the Deputy Director of Rural Development. The Director of Agriculture is still responsible for the administration of the Cotton Ginning and Pressing Factories Act in so far as it relates to the checking of malpractices due to the watering of cotton.

*Konkan Valleys.*—In the Hydro-electric work tail water valleys in the Thana and Kolaba districts, two demonstration farms are run, one in the Pej-Ulhas Valley in the Thana district and the other in the Patalganga Valley in the Kolaba district. Water is pumped by Government at these places and given to cultivators who grow mostly vegetables. In the Kundalika Valley in the Kolaba district, sugarcane is being introduced at a private farm. At the two demonstration farms, technical advice and guidance are given by Assistant Rural Development Inspectors specially attached to these

farms. Economics of vegetable growing under conditions obtaining in the tract are being studied there. A syndicate has been formed for the development of the Patalganga Valley by utilising tail water from the Hydro-electric works at Khopoli. The syndicate has set up pumping plants at 4 places where 36 acres are being irrigated.

## IX. HORTICULTURAL ACTIVITIES.

The Horticultural activities are attended to by the Assistant Horticulturist assisted by a staff of 4 trained malis who are utilized for important fruit growing areas and work under his guidance. The main work comprises of giving advice in regard to the improved methods of cultivation and selection of sites for opening new plantations, supply of reliable grafts and plants on requisition and adoption of control measures against pests. The Assistant Horticulturist is also responsible for preparing horticultural development schemes for the districts, and arranging demonstrations in connection with manurial treatment, pruning and irrigation, treatment for bahars, technique of fruit preserves, etc.

The Assistant Horticulturist conducted two classes for training orchardists, one of nine days and the other of three days' duration where 50 and 24 persons, respectively, were trained. Moreover, he delivered lectures and arranged practical work for three batches of junior officers of the Rural Development Department for 10 days, each. The total number of persons who received this training was 63.

He arranged the Horticultural Section at the show near Alibag on the occasion of the visit of H. E. the Viceroy.

There is considerable demand in North Gujerat for converting wild Bor plants into quality Bors, by budding with the Ajmer variety and advisory work was done in places where the technical advice of the horticultural staff was sought. In the Surat district 750 suckers of Kew and 200 suckers of Queen variety of pine-apple have been introduced with the aid of Village Improvement Grants. In East Khandesh, horticultural work is attended to by a special Assistant Rural Development Inspector. A mali was also entertained from the Village Improvement Grant. The staff prepared 7,155 Bor, mosambi and orange plants by means of budding. A very old mango tree of the Borsha variety at Kalamsare in Pachora taluka is well known for its fruit and attempts were continued to rejuvenate it and to have grafts prepared from it. In West Khandesh also, a mali is appointed for attending to horticultural work. He prepared 140 mango grafts and 28 chikoo layerings, and budded 86 Bor plants. He pruned 4,219 trees and extracted stem borers from 29 trees. In the Poona district, an attempt is being made to start a Fruit Growers' Association at Talegaon-Dhandhere. In the Ratnagiri district, a mango grading centre was started. One mango canning demonstration was arranged which was attended by 80 persons.

The subjoined table gives information regarding the plants and grafts supplied :—

Serial No.	Name of fruit plant.	No. of plants supplied.	Remarks.
1	Mosambi and Santra ... ..	27,538	
2	Mango grafts ... ..	20,107	
3	Guavas ... ..	4,022	
4	Banana suckers ... ..	3,936	
5	Papaya ... ..	2,900	
6	Sour limes ... ..	1,593	
7	Pomegranates ... ..	1,140	
8	Grape cuttings ... ..	700	
9	Italian lemons ... ..	654	
10	Chikoo ... ..	238	
11	Kew and Queen pine-apples ... ..	254	
12	Naval orange ... ..	120	
13	Grape-fruit ... ..	18	
14	Jack fruit ... ..	16	
15	Bor buds ... ..	4,744	
16	Cashew-nut seed ... ..	20 lbs.	
17	Papaya seed ... ..	19 "	
18	Shade trees ... ..	633 "	

The table does not take into account plants supplied without the intervention of the departmental staff. It is understood that the Nursery-men at Talegaon alone sold 170,000 budded orange plants during the year under report.

## X. IMPROVEMENT OF LIVE STOCK AND POULTRY.

### (a) IMPROVEMENT OF CATTLE.

Activities connected with the technical aspect of breeding of cattle and distribution of premium bulls, etc., continued to be under the Live Stock Expert to Government attached to the Agricultural Department. The work with which the Rural Development Department is concerned is mainly in the nature of popularising

the different breeds, organising co-operative societies and the preliminary work of recommending the grant of premium bulls or subsidies for their maintenance. The District Staff under the Rural Development Department advised societies and individual cattle owners in regard to the proper maintenance of bulls and the organisation and management of cattle breeding societies. Attention was paid to the breeding farms of those Taluka Development Associations which had undertaken the work.

The Taluka Development Associations at Bhusawal and Jalgaon are running Cattle Farms for the Nimar Breed. The Farm run by the Jalgaon Taluka Development Association at Pimpale distributed 8 bulls, 20 cows and 3 calves of this breed. This Farm has so far distributed 56 breeding bulls in 40 villages. This association also participated in the All-India Cattle Show held at Delhi, and 3 bulls and 2 cows of the Nemari breed presented at the Show secured prizes. The bull "Kamalya" won also the "Challenge Cup" awarded by H. H. the Maharaja of Indore.

There are 13 cattle breeding societies in the Karnatak of which 12 are situated in the Dharwar district and one in the Belgaum district, and they are doing useful work. One breeding bull has been given to the Marewad Better Farming Society in the Dharwar taluka.

#### (b) IMPROVEMENT OF POULTRY.

Public interest is growing in recent years in better breeds of poultry. The training which is given at the Government Poultry Farm at Poona and the distribution of fowls and eggs for breeding purposes made by Government have been largely instrumental in stimulating this interest and encouraging systematic attempts in rearing superior kind of poultry. Centres or Poultry Farms are organized at suitable villages so that they may serve as units from which knowledge regarding improved poultry breeding may radiate and from which improved varieties of fowls, chickens and eggs for hatching can be supplied to cultivators.

The Rural Development Boards in the Districts of Thana, Ahmednagar and West Khandesh subsidised such poultry centres. The Thana Board appointed a Kamgar for giving advice to Poultry Keepers.

### XI. SHOWS, DEMONSTRATIONS AND CLASSES.

*Shows.*—During the year under report, over 50 big and small agricultural shows were held in the Province. In North Gujerat 6 fairly big shows lasting for 3 to 7 days were held. One of such shows lasting for 4 days was arranged at Shukla Tirtha in the Broach district at the time of the annual fair held there. In East Khandesh cheap shows were arranged at Taluka Demonstration Centres at Waghli and Mhasawad and each was attended by about 5,000 cultivators. A small Agri-Horticultural show was arranged at Khiroda which was attended by 700 persons. In the

Satara district, one agricultural and 4 cattle shows were arranged. A stall was arranged in the exhibition under the auspices of the Educational Conference held at Satara which was attended by 25,000 persons. Cheap shows round about Taluka Demonstration Centres at Umbraj and Ladegaon lasting for a week at each place were arranged and these were attended by 18,000 cultivators. Four cheap shows were arranged in the Deccan Canal areas. Six cattle and agricultural shows were held in the Belgaum and Kanara districts. One mango show was held at Dharwar and cheap shows were held at 5 places in the same district. In the Konkan two big shows were held—one at Devrukh in the Ratnagiri district and the other at Khandala near Alibag in the Kolaba district. Advantage was taken of the Baby and Health week shows held at 3 places in the Thana and Bombay Suburban districts for agricultural propoganda.

*Demonstrations.*—The total number of various kinds of demonstrations carried on in the different divisions exceeded 3,600. They were in respect of varieties of crops, manurial treatment on crops, working of implements, control of pests and diseases, control of erosion of soil, horticultural operations, etc., and were held, whenever possible, at fairs and important meetings of agriculturists called for other purposes such as jamabandi. The itinerary of the Rural Uplift Van also included demonstrations. The Deccan was foremost in this activity. These demonstrations have helped a great deal in stimulating interest in varied subjects of agricultural improvements and their utility is judged not so much by the attendance on these occasions as by the informal discussions with interested cultivators.

*Classes.*—Forty-seven bunding classes and 2 horticultural classes were held. At 2 Rural Workers classes, lectures were given by the staff of this Department.

*Rural Uplift Van.*—The itinerary of the Rural Uplift Van under the control of the Commissioner, Central Division, was chalked out by this Department from January 1940 onwards and the programmes were carried through with the assistance of the Rural Development Staff. One Assistant Rural Development Inspector was specially placed in charge of the Van to carry out the programmes in the districts. The Van visited 9 places in the Sholapur district and 3 in the Ahmednagar district during the months of January and February after which it was requisitioned for special health propoganda for two months in the Sholapur district. The Van halted at each place for 3 days and at each halt a small show was arranged and demonstrations of agricultural improvements, etc., were organised. Talks on village sanitation and public health were also arranged with the assistance of the Public Health authorities. At nights, magic lantern lectures were arranged which provided entertainment as well as instruction. In some places, the games of School boys and girls, bull fights, cattle and poultry shows were added to the programme.

The Van is equipped this year with a set of specially prepared coloured and ordinary posters, cloth boards, bold lettered cloth lables, samples of seed, manure, etc.

## XII. TALUKA DEMONSTRATION CENTRES.

In pursuance of the policy followed during the previous year, two more Taluka Demonstration Centres were started during the year making the total number of such centres 50 spread over as under :—

Districts.	No. of Taluka Demonstration Centres.	Places where situated.	Remarks.
Ahmedabad	3	Jakhwada, Transad and Vatva.	
Kaira	2	Varsowa and Anand.	
Panch-Mahals	3	Derol, Khandi and Varad.	
Broach	2	Haldar and Shera.	
Surat	2	Afwa and Dhamdachi.	
East Khandesh	2	Mhasawad and Waghali.	
West Khandesh	4	Mohadi, Malpur, Talwe and Dhadgaon.	
Nasik	4	Malegaon Camp, Dindori, Mangrul and Adgaon.	
Poona	3	Bhimthadi, Baramati and Kondapuri.	
Ahmednagar	3	Walki, Yesgaon and Takli Khandeshwari.	
Satara	3	Palas, Umbraj and Ladegaon.	
Sholapur	3	Malshiras, Madha and Jeur.	
Bijapur	2	Mahal Bagayat and Bagewadi.	
Dharwar	3	Haveri, Gadag and Navalur.	
Belgaum	3	Belgaum, Hirekudi and Bailwad.	
Thana	3	Yeranzada, Sajai and Wada.	
Kolaba	1	Varsai.	
Ratnagiri	2	Devrukh and Kankawali.	
North Kanara	2	Bargi and Maunalli.	
Total	50		

2. These centres are intended to demonstrate the improvements of agriculture, suitable to various tracts under the guidance of the departmental staff. The main objects of these demonstration centres may be regarded as two-fold, viz., (1) to demonstrate proved improvements applicable to tracts on cultivators' fields under average rural conditions so that they may be taken up by the cultivators in the neighbourhood and (2) to acquaint the cultivators with improved types of agricultural requisites and to arrange for their supply in the early stages till they become popular and can sometimes be prepared even locally. To achieve these objects, great care is taken in the selection of stations for the demonstration centres. Each demonstration centre is equipped with a depot where seed and implements are stocked. The seed is generally

sold to the agriculturists on requisition and the implements are given out on hire at moderate rates. The depôt also accommodates the Kamgar or Assistant Rural Development Inspector. A stock of insecticides and fungicides is also maintained at these depôts for use whenever required. The Assistant Rural Development Inspector is moreover responsible for guiding the activities of the demonstration centre and seeing that the agriculturists derive the maximum advantage therefrom. All centres with a few exceptions continued to do useful work.

### XIII. TALUKA DEVELOPMENT ASSOCIATIONS.

Taluka Development Associations have, with a few exceptions, continued to do useful work in spreading the knowledge of improved methods of agriculture among the agriculturists in their area. This type of organisation for carrying on agricultural improvement has proved very successful, particularly, in the Khandesh and Karnatak Districts, where some of the Associations have showed remarkable results in their propaganda work.

2. It was, however, realised from past experience that the potentiality for further progress is limited in a Taluka Development Association, as its area, being as large as a taluka, with a diffused membership is not convenient for intensive work. It was, therefore, decided to start Better Farming Societies in compact areas with the object of undertaking intensive improvement of agriculture in the area and also to promote the progress of all-round rural development. The existing Taluka Development Associations which are working satisfactorily being allowed to continue and that no new Taluka Development Association was registered without the specific sanction of Government. Steps are, therefore, being taken to encourage the organisation of Better Farming Societies in suitable places. The number of Better Farming Societies registered by the end of the Co-operative year, i.e. 30th June 1940, is 18.

The number of Taluka Development Associations was 93 at the close of the year 1939-40 distributed over the Divisions of the Bombay Province as shown below :—

Division.	District.	No.
Gujerat	Surat	3
	Ahmedabad	1
	Kaira	5
North Central	East Khandesh...	12
	West Khandesh	8
	Nasik	5
	Thana	3
	Kolaba	2
South Central	Poona	10
	Ahmednagar	10
	Sholapur	7
	Satara	12



Division.	District.	No.
Southern or Kanara	Ratnagiri	8
	Belgaum	4
	Bijapur	1
	Dharwar	7
	North Kanara	1
	Total	99

#### XIV. MARKETS AND MARKETING.

##### ALL-INDIA MARKETING INVESTIGATION.

The work in this Province in connection with the All-India Agricultural Produce Marketing, which was hitherto in the charge of the Professor of Agricultural Economics, College of Agriculture, Poona, was transferred to the Chief Marketing Officer, during the year under report.

The Chief Marketing Officer with the assistance of the four Assistant Marketing Officers carried out marketing surveys on sheep and goats, sugar and gul and mango, apples and cashew-nuts. A brief report on Jute, was also submitted to the Agricultural Marketing Adviser to the Government of India. Much additional work was done in connection with supplementary information regarding survey reports on potatoes, hides and skins, and wool and hair, previously submitted. The Provincial Marketing Scheme, financed largely from the Government of India grant, completed its period of five years. It has extended for a further term of five years in order to enable the completion of surveys on all major agricultural commodities. During the five years of its existence, the Provincial Marketing Staff has completed marketing surveys on 33 commodities and submitted 22 reports. A brief survey on the marketing of vegetables produced round about Poona was carried out with a view to organising a new market and co-operative sale of vegetables. Attempts were also made to collect preliminary information regarding the marketing of betel-nuts, betel-leaves, vegetables, turmeric and chillies. Inquiries were made as regards causes of decrease in export of castor seed and difficulties experienced by exporters and the results were reported to the Central Marketing Staff. Detailed data on the prices of cotton were also collected and submitted to the Central Marketing Staff.

Development work was mainly directed towards the preparation of proposals, etc., for the fixation of standard grades, grading experiments, regulation of markets, publicity work and price

intelligence service. The following paragraphs indicate the activities undertaken in this direction :—

*Mosambis.*—With the help of a temporary staff, 6 lakhs of mosambis were graded and sold under AGMARK labels.

*Mangoes.*—1,26,000 Alphonso Mangoes were graded in Ratnagiri and Bulsar areas. Enquiries made in the market indicate that packages containing graded mangoes fetched a premium of 10 to 15 per cent.

*Eggs.*—6½ lakhs of eggs were graded and sold by 12 parties to whom certificates of authorization were issued.

*Ghee.*— Two firms continued to grade and mark ghee.

*Hides.*—The Experimental Hide Grading Station at Bandra which was hitherto maintained by the Government of India was taken over by the Bombay Government in February 1940 and was placed under the control of the Chief Marketing Officer. The main object of the station is to demonstrate the proper method of flaying carcasses and of grading their skins.

*Cotton A. L. F. 1027.*—Grading of this cotton was taken up in Surat area. 2,643 bales of cotton valued at nearly 4 lakhs of rupees were graded and marked. Graded stuff sold under AGMARK label fetched a premium ranging from Rs. 3 to Rs. 8-8-0 per bale. The premium for graded pedigree cotton was Rs. 11 per bale.

*Hand-picked groundnut.*—An Experimental Groundnut Grading Station was opened at Kolhapur during this year. Over 22 tons of groundnuts were graded and marked, resulting in an excellent reception in the Bombay market.

Arrangements for the adoption of grading of edible oils, Vanaspati, Ata, Rice and Gul are under progress. Considerable preliminary inquiries were made in regard to *Standard Contracts, Control of Commodity Exchanges* and report submitted.

One of the main difficulties of the agriculturist is the lack of marketing facilities necessary to secure satisfactory prices for his produce. With this object in view, the Agricultural Produce Markets Act has been enacted so as to provide for the establishment and control of regulated markets in the Province. To facilitate the organisation of new regulated markets in the districts, the creation of 10 posts of Marketing Inspectors—One under each Rural Development Officer has been sanctioned by Government, and appointments have been made recently. These Marketing Inspectors will also be utilised in organising and supervising Co-operative Sale and Supply Societies and carrying out all work in connection with grading and packing of important commodities at important centres.

The existing seven regulated cotton markets worked well. The following statement gives information regarding arrivals at these markets and the income and expenditure of several marketing committees :—

Cotton Market at	Arrivals.		Income.	Expenditure.	Remarks.
	Kapas (Unginned cotton).	Lint.			
			Rs.	Rs.	
Dhulia ...	26,560 carts	702 carts	6,781	3,587	
Jalgaon ...	10,543 "	1,285 "	2,988	1,191	
Amalner ...	12,295 "	8 "	2,841	2,678	
Dondaicha ...	9,757 "	.....	2,107	850	
Baramati ...	5,456 "	385 carts	1,611	751	
Bail-Hongal ...	49,492 Dokras	2,402 Dokras	7,474	4,484	*
Bijapur ...	52,127 "	41,902 "	10,886	10,823	

(\*) = A dokra varies from 300 to 400 lbs. in weight.

The report of the Chief Marketing officer detailing the marketing activities both with regard to surveys and development is annexed to this report as Appendix A.

#### XV. GRAIN DEPOTS.

( Reports were received that the proposed introduction of debt relief legislation had dried up the credit of agriculturists in certain backward areas, and that they were, therefore, put to considerable inconvenience. Transactions of agriculturists with their sowcars are usually in kind in backward areas, and grain depôts run by the Revenue Department in the Thana district had shown marked success. The organisation of grain depôts, particularly in rice tracts and forest and other areas inhabited by backward classes, was, therefore, pushed on during the year under report.

There are certain clear advantages of grain depôts for the rural population which is accustomed to take loans in kind from the sowcars and repay in kind with a rate of interest, as high as 50 per cent. or even 100 per cent. The organisation of grain depôts in such areas is calculated to make the cultivators understand and appreciate the advantages of collective action in borrowing from the grain depôt in their area, estimate their requirements of grain for cultivation and consumption, and repay it at the end of the year with an addition of only 25 per cent. of which 12½ per cent. would be credited to their share account in their grain depôt and the rest debited towards their interest account in the depôt. The facilities afforded by a grain depôt are such as would help needy agriculturists in the area to avoid the usurious practices of sowcars, and at the same time enable them to obtain the required quantity of grain at a comparatively cheap rate of interest.

The agriculturists in backward tracts are not able to collect the initial capital necessary for purchasing the necessary stock of grain for a grain depôt. Hence initially Government supplied the capital as a loan on easy terms. An advance not exceeding Rs. 25,000 was

sanctioned for the establishment of grain depôts at suitable centres for distribution of nagli and rice for the purpose of maintenance in each of the districts of Kolaba, Ratnagiri, Thana and Kanara. The advance is to be repaid in 10 equal annual instalments and no interest is charged during the first year of the scheme, after the expiry of which the question whether any interest should be charged is to be considered. These depôts are run on the Thana model subject to the condition that the borrowing members repay their loans with an addition of 25 per cent. (in kind) of which  $12\frac{1}{2}$  per cent. is debited to their interest account and the remaining  $12\frac{1}{2}$  per cent. their share account, and that the depôts are administered by committees consisting of the Police Patils and two influential villagers of the area in which the depôts are opened. It is the intention that when the work is sufficiently advanced, arrangements should be made to organise the depôts on a co-operative basis. A separate advance of Rs. 10,000 for a similar purpose was sanctioned for the Igatpuri and Nasik talukas in the Nasik district.

As a result of the departmental propaganda, 115 grain depôts covering 585 villages were established in the Kolaba district. The quantity of grain advanced by these depôts during the year was 476 khandis and the total quantity due for recovery was 535 khandis. No less than 517 khandis have already been recovered, showing a satisfactory position with regard to the recovery of grain advanced by these depôts. The percentage of recovery of the total recoverable quantity in the Kolaba district is 96.

In the Thana district, 36 depôts covering 253 villages were started, and the quantity of grain advanced by these depôts during the year was about 145 khandis. Of the total recoverable quantity of 171 khandis, 140 khandis have been recovered showing a percentage of recovery of 84.

In the Nasik and Igatpuri talukas, 7 depôts were established during the year, covering 87 villages. Of the total quantity of 89 khandis due for recovery, 85 khandis have already been recovered, showing a recovery percentage of 95.

The number of depôts started in the Ratnagiri district is 12 so far, and they cover 65 villages in all. These depôts have advanced a total quantity of 279 khandis, and as the depôts are newly started, the grain advanced by them is not yet due for recovery. (In the Kanara district, only one depôt covering 15 villages was established in the Halyal taluka.) This depôt advanced 3 khandis during the year and recovered the entire quantity together with an additional quantity of 9 maunds by way of interest. Several of these grain depôts are likely to form the nuclei for the introduction of rural development activities, and as the departmental staff comes into closer touch with the members of such depôts, it would be able to gain their confidence and initiate them into further collective activities. These depôts could conveniently take up multiplication, stocking and distribution of improved seeds of paddy and nagli, and later on, they might serve as an agency for undertaking more advanced type of activities, such as, construction of temporary or permanent dams across streams, crop protection, etc,

## XVI. RURAL DEVELOPMENT BOARDS.

A Provincial Board of Rural Development consisting of officials and non-officials for a period of two years has been created. The function of the Provincial Board is to advise on general principles and policy regarding rural development. To facilitate the work of the Board, the following four committees have been established :—

- (i) Agriculture and Live Stock Committee,
- (ii) Cottage Industries Committee,
- (iii) Training and Propaganda Committee,
- (iv) Backward Areas Committee.

The first meeting of the Provincial Board was held on 29th and 30th July 1939 and was presided over by the Honourable Minister in charge of Co-operation and Rural Development. The Agriculture and Live Stock Committee met subsequently twice and the Cottage Industries Committee once only.

During the year under report, a District Rural Development Board was established for each district in the Province. These Boards though largely non-official in composition, have also the District Collector (either as Chairman or Vice-Chairman) and the Prant Officer and Assistant Registrar, Co-operative Societies and Rural Development Officer, as members. The Rural Development Inspectors stationed at the head-quarters of the district function as Official Secretaries of the Boards.

Duties and functions of the Boards are as under :—

(a) To assist and advise the officers of the Rural Development Department in carrying out the schemes of development of rural areas approved by Government.

(b) To control and supervise the work of Taluka Development Associations.

(c) To organise and supervise all rural development work in the district.

(d) To prepare schemes of improvement of rural areas for submission to Government through the Director of Rural Development.

(e) Generally to advise the officers of the Rural Development Department on the economic aspects of the rural areas and to act as a focussing centre for all rural development activities.

A grant of Rs. 2,000 was made to each of the Boards for expenditure on schemes of development and to meet other incidental expenses.

Rural Development Boards for different districts came into existence at different times in the course of the year. The following paragraphs give a short account of some of the important activities undertaken by the Boards during the year :—

*Ahmedabad.*—The expenses of training village Dais and conducting Veterinary dispensaries were met by the Board. Two improved oil pressing ghanis and one cream separator were purchased for demonstration.

*Kaira.*—The Board gave contributory grants for different activities like cottage industries, agricultural improvements, sanitation, libraries, etc. The total grant for agricultural improvements amounted to Rs. 1,050.

*Panch Mahals.*—The Board distributed grants amounting to Rs. 1,800 to six Rural Reconstruction Centres. A training class for making gul from palm juice was held.

*West Khandesh.*—A scheme of tree planting was chalked out and, accordingly, 1,00,000 trees were planted. A co-operative week was celebrated in 56 villages. Improved seed was distributed through Taluka Development Associations. One mali was employed for horticultural work. Four kamgars for bunding work were also entertained. Assistance was rendered to Goshala and the Dhulia Agricultural School for improvement of cattle and poultry respectively. Two circulating libraries were started.

*East Khandesh.*—The Board continued the work planned by the former Village Improvement Committees.

*Ahmednagar.*—One Bunding Sub-Overseer was appointed. A subsidy of Rs. 250 was given to each of the Taluka Development Association. A sum of Rs. 200 was placed at the disposal of the Divisional Superintendent of Agriculture, Deccan Canals, for distribution of sann seed. A reward of Rs. 30 was given for poultry farming.

*Satara.*—The Board has under its consideration questions like extension of irrigation, improvement of cattle, poultry and village water supply.

*Belgaumi.*—The Board approved continuation of several schemes financed from the Government of India grant, viz. poultry keeping, bee keeping, fruit cultivation, farm yard manure pits, seed distribution and improved furnace for gul making.

*Dharwar.*—Expenditure of Rs. 6,698-9-0 was incurred on improvement of agriculture and live-stock, communications, sanitation, public health medicine chests, and for training one student in midwifery.

*Thana.*—The Board was instrumental in distributing 179 mango grafts and other fruit trees and seeds. Two malis were also employed with a view to facilitate horticultural operations. A kamgar was appointed to help in demonstrating control of betelvine wilt and an additional kamgar was taken up for poultry work. Improved paddy seed was distributed. Ten travelling dispensaries were maintained. Bone-charring demonstrations were arranged. The Board also rendered assistance in the arrangement for opening grain depôts at suitable centres. Chlorogen worth Rs. 500 was supplied for anti-guinea worm campaign.

*Kolaba.*—The Board has decided to conduct two schools for sizing and weaving.

*Ratnagiri.*—Three approach roads were constructed.

*Kanara.*—A number of schemes, like bee-keeping, extension of fruit cultivation, coir manufacture, were approved by the Board.

The following paragraphs indicate in brief the activities undertaken by the Boards from the village improvement grants placed at their disposal :—

In Ahmedabad, the following grants were made available :—

Rs. 300 for horticultural activities.
„ 200 for improved implements.
„ 150 for B. D.-8 cotton seed.
„ 100 for sulphur dusting.
„ 300 for improved seed to be given at concession rate.
„ 700 for poultry improvement.

Grant for improving village grazing areas was also given.

In the Panch Mahals, a seed stock worth Rs. 434-14-6 and implements worth Rs. 94 were handed over to the Rural Development Inspector at Godhra.

In the Surat district, 750 pine-apple suckers of Kew and Queen varieties were distributed.

In East Khandesh, the following expenditure was incurred :—

	Rs.
(1) Conservation of soil (Bunding) ...	999
(2) Crop protection (Gun Club) ...	361
(3) Cottage Industries ...	1,230
(4) Live-stock improvement ...	4,455
Total ...	<u>7,045</u>

In the Nasik district, Rs. 1,400 were allotted for anti-erosion of soil.

In the Poona district, Rs. 1,400 were allotted to Taluka Development Association for seed distribution. Rs. 150 were also spent in distributing improved poultry.

In the Sholapur district, Rs. 420 were provided for distribution of improved seed. The Taluka Development Associations at Sholapur, Madha and Barsi were given Rs. 200 each for a similar purpose. Rs. 3,500 were spent on two poultry farms.

In the Satara district, a sum of Rs. 200 for implements, and another of Rs. 100 for seed were granted to each of the Taluka

Development Associations. 877 mango grafts were distributed on the *Arbor day* at half cost. A sum of Rs. 1,000 was granted for purchasing pure khillari cows and distributing them to Harijans for being kept for breeding purposes. Financial help was given for the starting of poultry farms. A cattle show was organised at the time of Nagoba fair at Mhaswad when prizes were given for good animals.

In the Bijapur district, Rs. 641 were spent by way of stipends to students taking training in cottage industries.

In the Belgaum district, funds were allotted as under :—

	Rs.
(1) Paddy seed distribution ... ..	3,000
(2) Wheat seed distribution ... ..	400
(3) Extension of fruit growing ... ..	400
(4) Improved manure pits ... ..	1,000
(5) Improved furnaces for gul making... ..	400
(6) Bee-keeping ... ..	1,000
(7) Poultry ... ..	400
(8) Bunding ... ..	600

In the Thana district, 699 mango grafts were supplied at half cost. Bor buds and seed of other fruit trees were also supplied. A mali was engaged for two months who prepared 204 grafts and 104 layerings.

In the Kolaba district, 510 mango grafts were distributed. Paddy seed distribution was also taken up at two centres.

In the Ratnagiri district, Rs. 300 were spent for providing facilities for the marketing of mangoes.

In the Kanara district, Rs. 900 were allotted for paddy multiplication, Rs. 1,470 for distribution of paddy and sugarcane and Rs. 976 for extension of fruit growing.

## XVII. TRAINING CENTRES FOR RURAL ASSISTANTS.

It is proposed to appoint rural assistants for propaganda work in villages, after thorough training in—

- (1) Agricultural improvements to be popularised in the areas concerned,
- (2) Co-operative methods of work for reconstruction of rural life,
- (3) Cottage industries likely to succeed in the areas concerned,
- (4) Management of Village Panchayats,
- (5) Work of Rural Development including the important questions affecting the rural life.



The training which would be imparted to these rural assistants would enable them to function as village guides, and work as secretaries of the Village Multi-purpose Societies and Village Panchayats.

2. During the year under report, the establishment of five centres for imparting the necessary training was sanctioned at the following places :—

(1) Sabarmati	...	...	...	} Non-officials.
(2) Bordi	...	...	...	
(1) Dhulia Agricultural School	...	...	...	} Official.
(2) Manjari Farm	...	...	...	
(3) Devihosur Agricultural School...	...	...	...	

The centre at Sabarmati was the first to start work. It took up the first batch of 50 students for training on 1st September 1939 which will terminate on 31st August 1940. On termination of the training at the centre, the students will be given further specialised training for three months at Poona. The scheme for the training of rural assistants is expected to last for five years during which period, each batch consisting of 35 students would receive training for nine months at each centre, followed by a specialised course of training for three months at Poona. The students are to be given stipends of Rs. 20 per month each while undergoing training.

3. The selection of the candidates will be made by an *ad hoc* committee for each district, consisting of—

- (1) The Collector (Chairman).
- (2) The non-official president or vice-president of the District Rural Development Board.
- (3) The Assistant Registrar, Co-operative Societies and Rural Development Officer.

The selections by the committees are subject to confirmation by the Commissioner of the Division concerned.

4. On completion of their training the rural assistants will be placed in the regular time-scale of Rs. 20—1—25. They will also undertake to serve Government for a period of 5 years during which period they will be employed as secretaries of Multi-purpose Societies, Better Farming Societies and/or Village Panchayats.

I have the honour to be,

Sir,

Your most obedient servant,

M. D. BHANSALI,

Registrar, Co-operative Societies and  
Director of Rural Development.

**Annual Report of the work done by the Chief  
Marketing Officer, Bombay Province, Bombay,  
during the year 1939-40.**

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**ADMINISTRATION AND STAFF.**

In June 1939, Government created a post of Chief Marketing Officer and appointed me to hold it. I was relieved from the post of Marketing Officer with the Government of India in the Department of Education, Land and Health, under the Imperial Council of Agricultural Research, Delhi, where I was on deputation from February 1935, in the afternoon of the 17th June 1939, and I took charge of the post of the Chief Marketing Officer, Bombay Province, Bombay, in the forenoon of the 27th June 1939. The establishment sanctioned under me consisted of 1 head clerk, 1 clerk and 2 peons who joined after over a month after I took charge of the post. The sphere of my jurisdiction was not made clear at the time of my appointment, but subsequently orders were issued extending my jurisdiction to the whole Province.

Subsequently, from the 25th October 1939 the provincial marketing scheme, financed largely out of the funds provided by the Government of India through the Imperial Council of Agricultural Research, was transferred under me and I was designated as Provincial Marketing Officer for the purpose of carrying on the work of the provincial marketing scheme in accordance with the plan prepared by and under the guidance of the Agricultural Marketing Adviser to the Government of India, in addition to my duties as Chief Marketing Officer. The Provincial Marketing Staff thus transferred under me consists of 4 Assistant Marketing Officers in Bombay Agricultural Service, Class II, 1 senior clerk, 4 junior clerks and 5 peons.

Messrs. N. V. Bhagwat, B. P. Deshpande, B. H. Patil and A. K. B. Cazi continued to hold the posts of the four Assistant Marketing Officers throughout the year.

The Experimental Hide Grading Station at Bandra which was opened early in February 1939 by the Agricultural Marketing Adviser to the Government of India, Delhi, was taken over by the Government of Bombay with effect from 1st December 1939 as a result of proposals submitted by the Provincial Marketing Officer. The temporary staff employed at this experimental station consists of 1 hide grader, 1 assistant hide grader, 1 balanceman, 1 sealer and 3 coolies.

A small temporary staff of 1 graduate assistant and 2 kamgars was also sanctioned for popularising the adoption of standard grades for mosambis in the Poona and Ahmednagar Districts.

The posts of one graduate assistant and one draftsman were sanctioned for a period of six months for compiling the provincial marketing survey reports for publication. These posts were filled in December 1939 and by the end of the year, part of the marketing survey on wheat was compiled.

With a view to undertake marketing development work in the districts on a larger scale Government have sanctioned 10 posts of Marketing Inspectors in the upper grade of the subordinate service. By the end of the year, these posts were advertised and applications called for by the Bombay-Sind Public Services Commission.

The provincial marketing scheme financed largely out of the funds provided by the Government of India was sanctioned for a period of 5 years which expired on 31st March 1940. Before the period actually expired, a comprehensive proposal for the extension of the scheme for a further period of 5 years was submitted and the Government was pleased to approve the proposal and extend the scheme for 5 years from 1st April 1940. In the meantime the Government of India also agreed to give a further contribution towards the working of the scheme for one year (1940-41), though to a smaller extent than during the preceding five years.

A scheme for the organisation of market intelligence service and for undertaking intensive development work in the Bombay markets, involving the appointment of an Assistant Marketing Officer and other establishment was submitted to Government whose orders are awaited.

By the end of the year I toured in the different districts for 70 days.

The work undertaken can be divided into two sections: I. Marketing Surveys; and II. Marketing Development Work.

## I. MARKETING SURVEYS.

During the year under review, a complete preliminary report on the marketing of sheep and goats was submitted to the Agricultural Marketing Adviser to the Government of India. It may be of interest to note in this connection that Bombay is a deficit province in regard to the supply of sheep and goats, importing annually about 6½ lakhs of animals mostly from the Kathiawar States. The total annual consumption is estimated at about 18 lakhs of sheep and goats, Bombay City being the largest consuming centre with an annual demand for nearly 7½ lakhs of animals. Ahmedabad comes the next, being an important distributing and consuming

centre. About six lakhs of animals are annually collected here out of which about 1½ lakhs are locally consumed. Next in importance comes Sholapur where about 1½ lakhs of sheep and goats are annually consumed. The principal factors which affect the prices of sheep and goats are the probable yield of mutton and the prevailing prices of skins. The prices of mutton at the chief consuming centres are fairly constant throughout the year and hence the price of any sheep or goat at any of the principal markets, for the same size, moves in sympathy with the prices of skins.

The survey on the marketing of sugar and gul was completed during the year and the first seven chapters of the report were compiled and submitted. The first draft of the remaining chapters was compiled before the end of the year.

Marketing surveys on mangoes, apples and cashew-nuts were completed and the reports were taken up for compilation.

A brief report on the marketing of jute products and fibre crops (except cotton) was prepared and forwarded to the Senior Marketing Officer of the Indian Jute Cess Committee, Calcutta, who was also taken round in Bombay and explained the methods of marketing jute products. Necessary information and data on the marketing of lac and lac products were collected and submitted for compilation of an all-India report on the subject.

Exhaustive supplementary information and data were collected and supplied to the Central Marketing Staff on potatoes, cotton, hides and skins, wool and hair, rice, sugar, cocoanuts, rape and mustard, co-operative marketing and markets and fairs.

During the 5 years of its existence, the Provincial Marketing Staff has completed marketing surveys on 33 commodities and subjects and submitted 22 reports.

A brief survey on the marketing of vegetables produced round about Poona was carried out with a view to organise a new market and co-operative sale of vegetables.

Some information on the trade in myrobalan in Bombay was collected and submitted to the Agricultural Marketing Adviser to the Government of India.

Attempts were made to collect preliminary information regarding the marketing of betel-nuts, betel-leaves, vegetables, turmeric and chillies.

The questions in regard to the causes of decrease in export of castor seed and the difficulties experienced by seed exporters as a result of the war were studied and necessary reports submitted to the Central Marketing Staff. Detailed data on the prices of cotton were collected and submitted.

## II. DEVELOPMENT WORK.

### A.—INTRODUCTION OF STANDARD GRADES.

(1) *Importance of standard grades.*—The chief aim of undertaking the marketing work is to suggest and effect improvements which will enable the agriculturist producer to get a reasonably correct price for the type and quality of the produce brought by him to his market, as compared with prices prevailing in a terminal and key market like Bombay. It was found during the course of the marketing survey work that, excepting to some extent for cotton, there existed no standards of qualities or grades for any agricultural produce and as such the market quotations available and published in a few markets like Bombay have no identifiable relation with any specified or standard quality or grade. For example, a price quotation in Bombay for oranges ranging from Rs. 2 to Rs. 6 per 100 is of no material use to a producer from Poona, Ahmednagar or East Khandesh unless he is able to know, at least with rough approximation, how much the quality of his oranges is likely to fetch in the Bombay market.

There is, therefore, no doubt that the institution of the standards of qualities is the very foundation of further marketing development work, but no standards could be defined before the marketing survey results were available as details about qualities of agricultural produce produced in different parts of India were not available till after the survey results were completed. The immediate importance of standardisation of quality was, therefore, realised and the subject received the first attention of the Marketing Staff. As a result, the Agricultural Produce (Grading and Marking) Act was passed by the Central Legislatures early in 1937. Under the provisions of this Act, standard grades can be specified for various agricultural products and only authorised producers, persons or firms can use the Agmark labels, stamps or seals issued under this Act to designate the grades of products in accordance with standard specifications.

(2) Specifications of standard grades of each of the different products of agriculture had been made in such a way as can be easily adopted by the producers and be readily accepted by the traders. In defining these specifications the existing trade practices have been taken into account so that there has not been much deviation from the practices adopted in the sorting of the produce by the producers, middlemen and the traders. Apart from the fact that the introduction and adoption of standard grades would enable us to organise a dependable system of price intelligence, grading has other obvious advantages. Several thousands of tons of useless material like earth, dirt, stones, etc., are transported to market after paying for its packing, freight and other market charges. Grading can avoid this waste to a considerable extent, though not completely. It would also increase the general business honesty and stop mixing of the produce of different qualities and varieties as also adulteration. In a place like Bombay it is extremely difficult to get pure butter, ghee, milk or oil. Adulteration of ghee and butter with *Vanaspati*

or hydrogenated oils has become so common that it has penetrated even to producing areas. Edible oils are frequently adulterated, sometimes even with mineral oils. The quality of hides produced in Bombay is amongst the lowest in the country and in consequence prices fetched for Bombay hides are low. Mixing of old and new and different varieties of rice is common while gul from some centres on the Deccan Canals may be sold as Kolhapur gul because the latter has a reputation for colour and keeping quality.

In the case of some products, like the 1027 A.L.F. cotton, the attempts towards standardisation of grades have been received well by the producers, traders and consumers, i.e., mill buyers, while in the case of bulk of the other commodities, the trade has not been so far very responsive. In almost all cases, however, the ideas of grading are well-known to the trade and each trader sells his produce after sorting in his own way. Thus he buys a mixed lot and makes an extra profit on account of sorting which naturally he does not like to be passed on to producers. Sorting at terminal markets and consuming centres can at the best be a very expensive procedure of marketing.

The consumers on their part are generally ignorant about the methods of grading and sorting. The introduction of standard or Agmark grades is known to extremely few, though considerable propaganda is being made amongst the consumers by interviews, issuing occasional press notes and by correspondence with big consumers like hotels, hospitals, military authorities, shipping companies, etc. In the case of certain products, like fruits and vegetables, the question of popularising the adopting of standard grades on the part of producers is handicapped by the practice of sale under cover or the secret method of sale (*Hatta*) followed in many markets like Bombay.

In the initial stages, the grading work has to be organised under the supervision of a special staff. After the packers of graded produce have realised the importance of grading, they have to be persuaded to apply for certificates of authorisation which enable them to use the Agmark labels for their graded produce.

In brief, it may be stated that the superstructure of improving agricultural marketing is to be laid on (i) the introduction and adoption of standard grades, (ii) popularising standard or Agmark grades amongst producers, traders and the consumers and (iii) improvement in the actual methods of sale and purchase.

(3) *Standard grades specified and introduced.*—A considerable amount of experimental work, however, has to be done for evolving suitable grades and standards and persistent efforts have to follow for popularising their general adoption by the producers, traders and buyers. A beginning in this work has already been made and in the Bombay Province, work is now in progress, either for experimental grading or for popularising the grades of the following commodities :—

(i) *Grapes.*—Standard grades for Nasik grapes were specified in 1937-38 when 3,875 packages containing 32,941 lbs. of grapes

were graded and sold. The graded grapes realised, on an average, Re. 0-2-3 more per package over the ungraded grapes. As in 1938-39, the work of grading grapes could not be continued in 1939-40 as well, on account of the following reasons :—

(a) No staff for popularising the adoption of grades was available.

(b) The uncontrolled trade practices and the system of selling under cover (*Hatta*) followed in the Bombay wholesale fruit market do not encourage the adoption of grading on the part of producers.

(c) Absence of adequate organisation for popularising the graded grapes amongst the dealers and the consumers also formed a serious handicap in the way of rapid extension of grading work.

(d) The total area under grapes in the province being small, as compared with the acreage under other important fruits, it was considered more desirable to concentrate efforts on popularising the grading of more important fruits like mosambis and Alphonso mangoes.

(i) *Mosambis*.—The standard grades for mosambis were specified in December 1937 and 1,66,365 fruits were graded and sold by about the middle of April 1938. These graded mosambis fetched a premium of 5 to 10 per cent. over the ungraded fruits. With the help of small temporary staff of one graduate assistant and two kamgars, the work was undertaken on a larger scale during 1939-40 when over 6 lakhs of mosambis were graded by the growers and merchants authorised under the certificates of authorisation issued by the Agricultural Marketing Adviser to the Government of India, Delhi.

(ii) *Mangoes (Alphonso)*.—During the 1939-40 season the grade specifications for Alphonso mangoes were defined and 1,26,000 fruits were graded in the Ratnagiri and Bulsar areas. With the help of a small grant made available by the Collector of Ratnagiri from the Village Uplift Funds four kamgars were appointed during the 1940 season for popularising the grades in the Ratnagiri district and so far nearly two lakhs of fruits have been graded this season. Enquiries made in the market indicate that packages containing graded mangoes fetched a premium of 10 to 15 per cent. over the ungraded fruits.

(iv) *Citrus Fruit Products*.—The grade specifications for citrus fruit products were defined recently and supplied to leading manufacturers of this product in this province. Attempts were made to persuade the manufacturers to adopt the Agmark grades.

(v) *Eggs*.—During the year 1939-40, nearly 6½ lakhs of eggs were graded and sold by 12 parties to whom certificates of authorisation were issued for grading eggs.

(vi) *Ghee*.—Two firms continued to grade and mark ghee and 3,072 maunds of ghee was graded under Agmark and sold during 1939-40.

(vii) *Hides*.—The Experimental Hide Grading Station at Bandra which was opened by the Agricultural Marketing Adviser in February 1939 was taken over by me from 1st December 1939 under the orders of the Government of Bombay. At this station, 66,333 hides were graded and marked till the end of March 1940.

(viii) *Cotton (1027 A.L.F. variety)*.—The work of grading and marking of 1027 A.L.F. cotton in Surat area was undertaken during the 1940 season, with the help of a small grant of Rs. 300 made available by the Agricultural Marketing Adviser. The work commenced by the middle of February 1939 and till the end of March of that year 2,643 bales of cotton valued at nearly 4 lakhs of rupees were graded and marked. The graded cotton sold under Agmark fetched a premium over local, ranging from Rs. 3 to Rs. 8-8-0 per Agmark certified bale. The premium obtained for Agmark pedigreed cotton was Rs. 11 per bale.

(ix) *Hand-picked Groundnuts*.—Due to unsettled conditions in China, the trade in hand-picked groundnuts has now been shifted to Bombay. The area around Kolhapur is found to be the most suitable one for trading in hand-picked groundnuts and with a view to develop the trade, standard specifications were defined and an Experimental Groundnut Grading Station was opened at Kolhapur during 1939-40, with the help of a sum of Rs. 400 sanctioned by the Agricultural Marketing Adviser for the purpose. Over 22 tons of groundnuts were graded and marked and had an excellent reception in the Bombay market. Samples of standard grades were despatched to the Indian Trade Commissioner, London, with a view to get the opinion of the London trade on these standards, which was awaited by the end of the year.

(x) *Edible Oils*.—Standard specifications for groundnut, sesame and mustard oils were defined and important oil mills were approached for the adoption of Agmark standards. By the end of the year, two of the leading oil mills were persuaded to apply for permission to adopt the Agmark grades.

(xi) *Vanaspati*.—The informal conference of manufacturers of *Vanaspati* or hydrogenated oils convened in Bombay during the year was attended and specifications for grading and marking *Vanaspati* were drawn. After the standard specifications were finally adopted, the manufacturers were addressed and interviewed on several occasions for the adoption of Agmark standards.

(xii) *Ata*.—Standard specifications for *Ata* or wheat flour have been defined and by the end of the year the biggest flour mill in this province was considering the question of adopting Agmark standards.

(xiii) *Rice*.—Standard specifications for Jirasal rice were defined after examining a large number of samples and several



rice mill owners from Kalyan and Bhivandi areas were interviewed for the adoption of standard grades. Commercial samples of Mugad rice grown in Karnatak were collected from several places for analysis with a view to specify standards.

(xiv) *Gul*.—Standard grade specifications for gul were defined and several parties were approached for the adoption of the standards. Almost all, who were approached in this connection, agreed to the principle of grading but pointed out certain practical difficulties which were referred to the Central Marketing Staff for consideration.

### B.—STANDARD CONTRACTS.

Closely connected with the introduction of standard grades, is the question of defining standard contracts in regard to trade on contract prevailing in terminal and key markets like Bombay. At present the forms of contract under which ready and forward trade is done are not uniform all over the country and vary from one trade association to another in the same market in regard to classification of varieties, rates of refraction, units of price quotations, methods of sampling, etc. Dirt and dishonesty are often considered to be paying propositions and there are several instances where middle men and merchants themselves mix dirt in the produce which may have been brought to the market by the producers in a clean condition. Even in terminal markets like Bombay dirt from the producing areas is sometimes specially imported because the terms of contract permit a higher percentage of refraction. Standard contracts on an all-India basis have, therefore, been defined for wheat, linseed and groundnuts. Scales of refraction have been lowered and made mutual, so that the produce offered with a smaller percentage of refraction should get a premium. This provision should ultimately result in the largest part of the premium passing on to the producer who then would be encouraged to market his produce in a cleaner condition. The methods of sampling have also been defined in the standard contracts to avoid errors arising out of divergent practices, while other matters in regard to the units of price quotations, methods of packing, quality allowances, months of delivery, etc., have also been defined. So far as the Bombay Province is concerned, the Marwari Chamber of Commerce, Bombay, has adopted the all-India linseed and wheat standard contracts and has found them working very satisfactorily. During the two *vaidas* of the year, 357,000 maunds of linseed (714 lots of 500 maunds each) were tendered under the provisions of the new standard contract. 167 surveys were made and there were only three appeals but not on any of the main items of the standard contract. The Grain Merchants' Association, Bombay, however, still persists in refusing to adopt the standard contracts for linseed and wheat and has still got under consideration the question of the all-India standard contracts for groundnuts. The main contention of the Grain Merchants' Association against the adoption of the standard contracts is the question

of changing weights and units of price quotations from hundred-weights and candies (which are different for different products) into standard maunds. Almost all the merchants in Bombay are however individually in favour of the adoption of the standard contracts on an all-India basis and agree that such adoption would considerably facilitate trade, avoid confusion and disputes and help in getting produce from the producing areas in a cleaner condition. Attempts are still being made to persuade the trade associations, but in case they continue to persist in refusing, proposals for compulsion may have to be considered.

#### C.—CONTROL OF COMMODITY EXCHANGES.

All the leading trade associations and a few important businessmen were consulted in regard to the desirability and extent of controlling the commodity exchanges. Almost all opposed direct interference in the working of their business, but there seems to be a fairly general agreement in regard to unitary control, restricting business only to members of recognised trade associations, prohibiting short-term *teji-mandi* and permitting futures trades only in those commodities in which futures business is being for long. The authoritative views obtained in this respect were submitted to the Agricultural Marketing Adviser to the Government of India, Delhi, and also to the Chief Secretary to the Government of Bombay.

The Cotton Price Control Officer of the Government of India (Mr. M. K. Vellodi, I.C.S.) was rendered necessary assistance in this respect.

#### D.—DIFFICULTIES OF EXPORTERS DURING THE WAR.

On account of the war, many restrictions have been imposed on exports. Several exporters were, therefore, interviewed in regard to their difficulties and the information was submitted to the Agricultural Marketing Adviser to the Government of India, Delhi.

#### E.—REGULATED MARKETS.

At the beginning of the year, several cotton markets were visited with a view to regulate them under the Cotton Markets Act of 1927. Tentative schemes for the regulation of 17 such markets in 9 districts were prepared. But in the meantime, the Agricultural Produce Markets Act was passed by the Provincial Legislatures in October, 1939, repealing the Bombay Cotton Markets Act and extending the scope of the new legislation to all agricultural commodities. Rules under the Agricultural Produce Markets Act, 1939, were framed and submitted to Government.

#### F.—PRICE INTELLIGENCE.

The necessity of organising an extensive system of price intelligence service for the dissemination of market news in regard to supplies, stocks and prices amongst the various primary,

secondary and terminal markets can hardly be over-emphasised. A scheme for the organisation of such useful service has already been submitted. In the meantime weekly bulletins regarding the milk and buffalo trade in Bombay were prepared and sent to the Agricultural Marketing Adviser to the Government of India, Delhi, and the press for publication. Arrangements were also made during the year to send telegraphic information on stocks and prices of buffalo and milk between Bombay, Delhi and Mehasana. Arrangements were made for posting the information on a black-board in the buffalo market of Bombay. This price intelligence service in regard to the trade in milch-cattle and milk is being financed by the Agricultural Marketing Adviser, Delhi, out of his own grant. By the end of the year the system of publishing every week in the press information on price of graded ghee was introduced.

#### G.—SHOWS AND DEMONSTRATIONS.

A marketing stall for demonstrating the activities in marketing work was organised at the Poona Industrial Exhibition held during March-April, 1939.

A similar show on a smaller scale was also put up in the office of the Provincial Marketing Officer at Poona which was visited by leading citizens and a few officials.

#### H.—PROPAGANDA AND ADVERTISING.

Propaganda in favour of graded agricultural produce was attempted through the press which published the material supplied in the beginning but later refused on the ground that it was more or less a trade advertisement. Big buyers like hospitals, hotel, clubs, military authorities, etc., were addressed to give preference to Agmark produce in their annual contracts and a few agreed. Apart from the propaganda done by the members of the marketing staff individually in favour of the adoption of standard grades, regulation of markets, co-operative sale, etc. etc., considerable propaganda amongst the mosambi growers and traders was done by the small temporary mosambi grading staff.

#### I.—CONTROL OF PRICES.

Immediately after the outbreak of war, there was a sudden rise in prices and with a view to check profiteering the Government convened several informal conferences, in some of which the Chief Marketing Officer was consulted. Apart from issuing orders under the Defence of India Ordinance in regard to the fixation of maximum prices, the Government decided to organise cheap grain shops in different parts. Necessary assistance was rendered by the marketing staff in the organisation of these cheap grain shops and other matters in regard to the control of prices. Detailed statements in regard to production, exports, imports and net

supplies available for consumption of important food grains, some oil-seeds and sugar and gum were prepared and submitted to Government indicating extent to which the Bombay Province depends for its food supplies on other areas.

#### J.—TRANSPORT PROBLEMS.

The Chief Marketing Officer was nominated by Government to the Local Advisory Committee of the G. I. P. Railway. The monthly meetings of this committee were attended as far as possible and difficulties in regard to transport of agricultural produce were put forth before the committee from time to time. As a result of the efforts of the marketing staff G. I. P. Railway granted concession in freight on mosambis transported to Bombay from certain stations in the Ahmednagar district.

On account of the outbreak of war, the steamer service on the Konkan coast was seriously curtailed and at one time there was a fear of the complete stoppage of the service. Since the prosperity of the agriculturists in Ratnagiri district depends largely on the export of mangoes by coastal steamers to Bombay and other places, the matter was immediately taken up with the authorities of the steamship companies, owners of motor launches which were engaged in fishing trade and the M. S. M. and the G. I. P. Railway authorities. As a result, the steamship companies arranged a daily service of steamer for 6 days in a week for the main ports of Konkan and the owners of motor launches also agreed to carry Ratnagiri mangoes to Bombay. The G. I. P. Railway and the M. S. M. Railway authorities also helped by quoting reduced freight rates on the Ratnagiri mangoes transported *via* Kolhapur and Belgaum.

#### K.—PROVINCIAL BOARD OF RURAL DEVELOPMENT.

The Chief Marketing Officer was nominated by Government to the Provincial Board of Rural Development constituted to advise Government in regard to the problems of rural development. The meetings of this Board and its committees were attended. An emporium sub-committee was appointed by one of the committees of this Board for the purpose of organising an emporium in Bombay for the display and sale of products of agriculture and rural industries. The Chief Marketing Officer was appointed as convenor of the sub-committee. Several meetings of the sub-committee were held but no conclusions could be arrived at by the end of the year. A report on the work of this sub-committee has already been submitted to the Secretary of the Provincial Board of Rural Development.

A proposal for organising an emporium in Bombay for rural arts and crafts was examined in consultation with the Director, Sir J. J. School of Arts, and a report was submitted.

#### L.—PUBLICATION OF PROVINCIAL REPORTS.

Although the Provincial Marketing Staff collected a large volume of valuable information and data regarding the marketing of several agricultural commodities, nothing could be done practically till the end of 1939 to make the information available to the public and Government departments to whom they would be of immense value and help. With the help of an additional temporary staff of one graduate assistant and one draftsman, therefore, the work of compiling the provincial marketing survey reports for publication was undertaken from December 1939.

#### M.—INSPECTION OF GRADED PRODUCE.

One of the most important duties of the Marketing Staff in the matter of creating confidence in the standard grades is the inspection of graded produce from time to time. Under the authority granted by the Agricultural Marketing Adviser, the Chief Marketing Officer and the four Assistant Marketing Officers are authorised to inspect the premises and the grading operations of all the persons and firms who have been permitted to grade on the basis of standards. The Marketing Staff has, therefore, to inspect regularly the grading premises and the graded produce. In cases where the grading is not done properly the authorised persons are duly instructed; and in case of repeated default, warned. In one case of extreme carelessness, arrangements had to be made for taking out and cancellation of Agmark labels put on the packages. Samples of graded produce are inspected periodically in the market and in the case of ghee are sent to the Central Ghee Control Laboratory at Cawnpore for analysis, which at once sends intimation in case the grading is defective.

Requests are periodically received to look after the sale of graded produce consigned to Bombay by the authorised packers in the districts. These requests are attended to, as far as practicable, by actually attending the markets at the time of the sale.

This inspection service will be extended and intensified immediately after the Marketing Inspectors are appointed to work in the districts and a larger quantity of produce is graded in accordance with the Agmark standards.

#### N.—CONFERENCES.

An informal conference of the Central Marketing Staff and representatives of manufacturers of *Vanaspati* held in Bombay was attended and necessary assistance was rendered in convening this conference and framing standard specifications.

The annual Marketing Officers' conference held at Delhi in October 1939 was attended by the Chief Marketing Officer.

In addition, several meetings of growers, merchants and others were convened in the districts while on tour and addressed in regard to immediate importance of undertaking marketing development work. In all these meetings the persons attending admitted the immediate necessity of regulating the markets, and, to some extent, of co-operative sale.

## O.—PRICES OF AGRICULTURAL PRODUCE.

The following figures indicate the annual average wholesale prices in Bombay of some of the main agricultural commodities :—

Commodity.	Price per maund.		Percentage rise in 1939-40.
	1938-39.	1939-40.	
	Rs. a. p.	Rs. a. p.	
Wheat (Karachi Bungla) ... ..	8 2 10	8 12 4	18.7
Rice (Nani-mill) ... ..	8 1 5	8 9 11	17.0
Jawar (Sholapur) ... ..	2 9 5	3 3 3	23.0
Bajri ... ..	8 2 1	3 13 0	23.7
Gul (Kolhapur) ... ..	8 18 11	9 11 11	9.8
Sugar (Java) ... ..	11 5 2	12 7 4	10.0

There was a gradual rise in the price of wheat, rice, jowar and sugar immediately after the outbreak of war in September, till the end of December, excepting a slight decline in October in the price of wheat and jowar. Bajri prices showed a general rise from September 1939 to February 1940, with a slight fall in October 1939. Prices of gul registered a general rise from April to October 1939 when they reached the maximum of the year to Rs. 1.-4-2 per maund. From November there was a general decline and by March 1940, it stood at Rs. 7-4-5 per maund of gul.

The following figures of wholesale prices of groundnuts and linseed in Bombay indicate the trend in 1939-40 :—

Date.	Groundnuts (per candy of 5.0 lbs.).		Linseed (per cwt.)	
	Bold.	Khandesh.	Bold.	Small.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
3rd April 1939 ... ..	26 8 0	27 6 0	6 11 0	6 7 0
1st May 1939 ... ..	28 4 0	28 12 0	.....	.....
1st June 1939 ... ..	32 4 0	.....	7 0 0	6 10 9
2nd August 1939 ... ..	30 8 0	31 8 0	6 12 6	6 8 0
3rd October 1939 ... ..	{ 33 8 0 to 34 0 0	{ 34 8 0 to 35 0 0	7 9 0	7 1 3

Date.	Groundnuts (per candy of 560 lbs.)		Linseed (per cwt.)	
	Bold.	Khandesh.	Bold.	Small.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
2nd November 1939	... { 35 0 0 to 35 0 0 }	36 8 0	8 2 3	7 12 0
1st December 1939 ...	... 44 0 0	{ 43 0 0 to 44 0 0 }	11 2 0	9 10 0
1st January 1940 ...	... 39 0 0	39 8 0	11 0 0	10 2 0
1st February 1940 ...	... 36 8 0	37 0 0	9 2 6	.....
1st March 1940 ...	... 37 4 0	.....	.....	.....

The maximum prices were thus reached in the month of December 1939, since when there has been a decline. In any case, the prices of bold groundnuts in March 1940 were about 40 per cent. higher than those prevailing in April 1939, while the February 1940 prices of linseed (bold) were about 37 per cent. higher as compared with the prices ruling in April 1939.

The following were the prices of cotton in Bombay :—

Date.	Broach (F. G. Spot).		
			Rs.
30th March 1939	...	...	155
4th May 1939	...	...	163
1st June 1939	...	...	171
29th June 1939	...	...	163
3rd August 1939	...	...	158
1st September 1939	...	...	164
1st February 1940	...	...	266
1st March 1940	...	...	273

Thus the prices ruling early in March 1940 were over 76 per cent. higher than those prevailing at the end of March 1939.

#### P.—MISCELLANEOUS.

Several hundreds of enquiries and references were received and attended to in the matter of the advice, remarks and guidance on the sale of agricultural produce, prices, stocks, etc. In this connection mention may be made of the question of seed potatoes, rendered important on account of the stoppage of supply of Italian potato seed due to war. Extensive enquiries were made in

Bombay and also at Delhi and Meerut when I was attending the Marketing Officers' Conference at Delhi in October 1939. Some potato seed was secured from Meerut and Patna for trial purposes, while the importers of Italian potatoes in Bombay were given necessary assistance and guidance in the matter of seed supply. A scheme for experimentation in seed potatoes with a view to make the Bombay Province self-sufficient in the matter of seed supply was suggested as also another proposal in the matter of study of wastage of potatoes with a view to estimate the commercial possibilities of cold storage for potatoes.

Results of experiments on cold storage of fruits and vegetables conducted at Poona were examined from the point of view of commercial storage and necessary notes were submitted.

Enquiries in the matter of sale of produce of rural Industries were also received and attended to. Mention may be made in this connection of coir and horn articles manufactured at Honavar. Several merchants and commission agents in Bombay were interviewed in this connection and a note was submitted to Government.

Requests in the matter of sale of produce consigned to Bombay received from the other Provincial Marketing Officers, particularly from Madras, Central Provinces, the United Provinces, the Punjab and the North-West Frontier Province were attended to.

### III.—PROGRAMME OF WORK IN 1940-41.

#### A.—MARKETING SURVEYS.

The final draft of the remaining three chapters on the marketing of sugar and gul would be completed and the writing up of the reports on barley, maize and gram, which have already been surveyed and for which information and data requires to be brought up-to-date, would be taken up. The reports on mangoes, pineapples, apples and cashewnuts would be taken up for compilation. The survey on the marketing of fish and on cold storage and ice factories in the Bombay Province would be taken up and necessary reports would be prepared. If possible, surveys on the marketing of bajri, jowar, tur and nachani, which are important crops of Bombay agriculture, would be taken up.

#### B.—SUPPLEMENTARY INFORMATION.

A good deal of the time of the marketing staff is spent in collecting supplementary information and data on and bringing up-to-date the reports already submitted to the Agricultural Marketing Adviser. There has been no week when requests for supplementary information and data are not received from the Central Marketing Staff and it would be, therefore, essential to spend time to attend to such requisitions.



### C.—PUBLICATION OF PROVINCIAL REPORTS.

The survey on the marketing of wheat in the Bombay Province would be completed and submitted for publication. Attempts would be made to submit for publication similar reports on the marketing of linseed and eggs.

### D.—STANDARD GRADES AND CONTRACTS.

It would be comparatively easier to afford the several marketing facilities to producers, which are at present lacking, if only they could be prevailed upon to offer their produce for sale properly graded. Only a beginning has been made for the experimental grading of a few commodities and for popularising the adoption of standard grades. This work of instituting and popularising standard grades will have to be accelerated very considerably if the marketing development work, in all its aspects has to be taken up at a rapid speed.

Attempts would be made again to persuade the various trade associations, to adopt the all-India standard contracts for wheat, linseed and groundnuts.

### E.—REGULATED MARKETS.

The Agricultural Produce Markets Act was passed by the end of 1939. The rules framed under this Act are awaiting the approval of Government. Immediately after this approval is received, the work of framing model bye-laws and organising regulated markets in the districts will be undertaken.

### F.—TRAINING.

Immediately after the Marketing Inspectors have been appointed, arrangements will be made for their training.

### G.—PRICE INTELLIGENCE.

Government have already been requested to sanction additional staff for organising an extensive price intelligence service, a co-operative wholesale agency in Bombay and for undertaking intensive marketing development work in the Bombay Markets. The question of organising the market intelligence service for the dissemination of market information on stocks, supplies and prices amongst the preliminary, secondary and terminal markets would be undertaken immediately after this additional staff is sanctioned and the Marketing Inspectors join their appointments in the districts.

### H.—FOOD ADULTERATION.

Adulteration of food articles, particularly dairy products, is increasing and it is difficult in big cities like Bombay to get unadulterated milk, ghee, butter or oil. A few samples of curry

powder which were got analysed in Bombay indicated the presence of lead which is definitely harmful to health. Sale of milk adulterated with milk made out of imported milk powder is increasing while adulteration of ghee with *vanaspiti* or hydrogenated oils is being practised even in the producing areas. It would be, therefore, essential to consider this problem seriously in the future and to take steps for checking adulteration.

### I.—WEIGHTS AND MEASURES.

The working of the Bombay Weights and Measures Act is being closely studied in the course of other marketing work. Certain difficulties have been noted which require further examination and consideration. Two series of weights are allowed, the pound series and the seer series. The difference between a 2 lb. weight, which is almost invariably taken as equivalent, to one seer by retail consumers and one *pucca* seer is about 2.2 tolas. There is a tendency on the part of many shop-keepers to use the pound weights while selling and the seer weights, while buying. There are two systems of using the measures, one with a heap on. (tapering, and the other without a heap) (flat.). In quoting prices different markets adopt different units of weights and measures. In the Bombay market, for example, the price quotations for grains are given in terms of a *candy* the weight of which varies with different commodities. A *candy* for gul, for instance, is 21 cwts., for rice 6½ cwts. and for pulses 7 cwts. In parts of Gujarat, the practice of quoting prices per local maund of 40 lbs. still continues. In the north-east Deccan, the unit of price quotation is *map* of 192 seers, in Ahmednagar district, a *pa'li* of 120 seers, and in parts of Poona the standard maund. In Sholapur and Karnatak districts the price quotations are often given in terms of seers per rupee. The commercial seer in some markets in these areas is equal to 2 standard seers. In the case of some commodities like oil, both the weights and the measures are used. The old unauthorised weights still continue to be used in some cases, while merchants often experience difficulties in the matter of getting their weights and scales checked and marked. Working of the two series of weights and measures, side by side, leaves a loop-hole for mal-practices and the existence of varying units of price quotations causes considerable confusion in understanding the price situation.

It is therefore obvious that the working of the Weights and Measures Act requires still further careful examination and necessary and desirable amendments.

### J.—CO-OPERATIVE MARKETING.

Apart from the organisation of co-operative sale societies, Government have accepted recommendations for organising multi-purpose co-operative societies. For the successful working of these societies, it would be necessary to make efficient arrangements for the purchase of requisites needed by the members of these societies

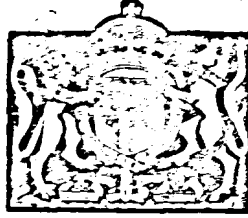
and for the disposal of the produce brought by them to the societies for sale. These arrangements will be required at most of the important marketing centres and more particularly in Bombay which is an important wholesale distributing and exporting market not only for this Province but also for a very large part of the rest India. The importance of the proper working of these arrangements will increase manifold when effect will be given to the provisions contained in the Agricultural Debtors' Relief Act and when the produce of the debtors whose debts would be adjusted begins to be handed over to the resource societies or agents approved under the provisions of the Act.

#### K.—CENTRAL CO-OPERATIVE WHOLESALE AGENCY IN BOMBAY.

One of the crying needs of many co-operative sale societies and producers is the provision of adequate and dependable facilities for the disposal of their produce in a terminal and key market like Bombay. Plans will have therefore, to be prepared for organising a co-operative wholesale commission agency in Bombay and for evolving a system of approved agents in important marketing centres. In course of time this agency might be developed into an information bureau for disseminating market news in regard to prices, visible stocks and their movements.

It might be also necessary to organise in Bombay an emporium-cum-museum for the exhibition and sale of agricultural produce and products of rural industries. In fact it should be possible to organise the proposed co-operative wholesale commission agency in Bombay in such a manner as will enable it to (1) act as a wholesale commission agency for the sale of the members' produce, (2) serve as information bureau and issue market news bulletins, and (3) arrange for a museum for the display of agricultural products of commerce, products of the rural industries and, if possible, forest products.

I visualise very clearly that amongst many others, the above items should figure prominently in the programme of future work on marketing improvement. They are also of vital importance for the proper working of the plan of rural development undertaken by Government.



Annual Administration Report of the  
Rural Development Department  
in the Province of Bombay

*For the Year 1940-41*



BOMBAY

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No. RUL/15.

Poona 1, September 13, 1941.

From

S. M. IKRAM, Esq., I.C.S.,

Registrar, Co-operative Societies, and  
Director of Rural Development,  
Bombay Province, Poona 1 ;

To

THE SECRETARY TO GOVERNMENT,

Revenue Department, Secretariat, Fort, Bombay.

*Subject*—Administration Report.

Rural Development Department.

Sir,

I have the honour to invite reference to Government Resolution, Revenue Department, No. P. 397, dated 10th May 1941, and to Government Memorandum, No. P. 397-II-H, dated 8th August 1941, on the subject mentioned above, and to submit herewith the Annual Administration Report on the working of the Rural Development Department for the year ending 31st March 1941. The report contains not only an account of the work done by the Rural Development staff and the Rural Development Boards, but also a resume of the work of the various departments connected with rural development, and is based on the reports received from the Collectors through the Divisional Commissioners. As directed in paragraph 4 of the Government Resolution referred to above, the report has been generally approved by the Board consisting of the Commissioners of Divisions, the Director of Agriculture and the Registrar of Co-operative Societies and Director of Rural Development, at a meeting convened for the purpose on the 6th of September 1941.

## I. ADMINISTRATION.

### (1) STAFF.

The organization of the Co-operative Department into the Co-operative and Rural Development Department sanctioned in Government Resolution, Revenue Department, No. 15/33, dated 8th March 1939, was, after an experience of over a year, considered to involve a serious wastage both of the energy of the staff and of Government finances. The combination of the two departments in one department did not prove successful, "as it resulted in officers, who are experts in their own line, having to devote much of their time to duties for which they had no adequate training and of which they had no adequate knowledge." The dissociation of the Rural Development Department from the district basis of administration was another factor which created many

difficulties. To avoid all this, the de-amalgamation of the department was sanctioned under orders contained in Government Resolution, Revenue Department, No. 4750/39, dated 29th November 1940. In consequence of these orders, which were given effect to from 1st January 1941, the following important changes were introduced :—

(1) The expert officers of the Agricultural Department reverted to their original department. The Cotton Superintendents, Surat, Dharwar and Jalgaon, the Cotton Supervisor at Broach, the Assistant Horticulturist and the Divisional Superintendent of Agriculture, Deccan Canals, were retransferred with their entire staff to the Agricultural Department. The bunding and shikar staff were also retransferred to the Agricultural Department. According to these revised arrangements, the Director of Agriculture resumed control and supervision of the cotton seed distribution schemes financed wholly or partly by the Indian Central Cotton Committee, the issue of licenses under the Cotton Transport Act, district horticultural work (under the Assistant Horticulturist) and the bunding and prevention of soil erosion schemes (under the Bunding Officers). The control over the Taluka Demonstration Centres was also transferred to the Agricultural Department along with the staff of the Assistant Rural Development Inspectors in charge of these centres. The marketing staff consisting of the Chief Marketing Officer, 4 Assistant Marketing Officers (temporary) and 10 Marketing Inspectors, continued under the control of the Registrar of Co-operative Societies.

(2) The district staff consisting of Rural Development Inspectors and Assistant Rural Development Inspectors was re-arranged so as to provide in each district under the Collector an officer of Rural Development Inspector's rank for rural development work, in the Agricultural Department, a District Agricultural Officer of the rank of Rural Development Inspector with two assistants, and in the Co-operative Department, a District Co-operative Officer of the rank of Rural Development Inspector in six districts and an assistant of Assistant Rural Development Inspector's rank in 14 districts. On this plan, the district staff doing the propaganda work in the Rural Development Department was re-distributed among the three departments (Revenue, Agricultural and Co-operative) as follows :—

Department.	Rural Development Inspectors.	Assistant Rural Development Inspectors.
Revenue .. .. .	19	132
Agricultural .. .. .	23	53
Co-operative .. .. .	6	14
	48	199

(3) According to the revised plans, the Collector is held responsible for not only controlling the work of the rural development staff placed under his control but also for co-ordinating the work of other departments in so far as they affect rural development.

On the de-amalgamation of the staff of the Rural Development Department, the post of the Deputy Director of Rural Development was abolished with effect from 16th January 1941. The staff consisting of one head clerk, two clerks and two peons under the Deputy Director was also abolished. The number of posts of Assistant Registrars of Co-operative Societies was reduced from 10 to 8 and their designation was changed from the "Assistant Registrar of Co-operative Societies and Rural Development Officer" to "Assistant Registrar of Co-operative Societies". The Registrar of Co-operative Societies continued to be designated "Registrar of Co-operative Societies and Director of Rural Development", but he ceased to be responsible for the rural development work in the districts which, as already stated, became the responsibility of higher Revenue officers.

## (2) RURAL DEVELOPMENT BOARDS.

The work of rural development is being carried out through the agency of the District Rural Development Boards constituted originally in 1939. Almost all the Boards have been now reconstituted. The Bijapur District Rural Development Board was abolished in September 1940 and its funds and functions were transferred to the Wilson Anti-Famine Institute, which had been carrying out similar activities since 1927. Similarly, the District Rural Development Board at Sholapur was abolished in September 1940 and its funds and functions were transferred to the Village Improvement Committee, Sholapur. The Joint Board for Thana and Bombay Suburban districts was dissolved and separate Boards for the two districts were constituted.

Under the revised constitution of the District Rural Development Boards, the Collector of the district is the Chairman of the Board and the officers of different departments in the district are *ex-officio* members. There are, in addition, a number of non-official members, either nominated by Government or elected under the rules of the District Rural Development Boards. The rural development work is carried out in accordance with a set of rules approved by Government and made applicable in the case of each Board with such modifications as are



deemed necessary according to the local conditions of the district concerned. The management of the affairs of the Board is entrusted to an Executive Committee, with the Collector as its Chairman.

In several districts, Sub-Committees were appointed to carry out, particular schemes assigned to them. In addition to the meetings of the Board, several co-ordination meetings were held at different centres throughout the districts. The Board meetings and the co-ordination meetings were generally well attended.

### (3) TALUKA AND VILLAGE ORGANIZATIONS.

In several districts, there exist Taluka and Village Improvement Committees, which are constituted to carry out the rural development work in their respective areas. For instance, in Kanara, there are 153 Village Improvement Committees and 11 Taluka Improvement Committees, while in Kaira, there exist 90 Village Committees and 7 Taluka Committees. The meetings of the Village Committees are informal in nature where prominent villagers meet and discuss problems affecting rural development. Some of the Village Improvement Committees in Kanara have done good work. In many areas where there are no Taluka Improvement Committees, the Taluka Development Associations are carrying out many of the functions of these committees.

### (4) FINANCE.

The appended statement will show the expenditure incurred on rural development during the financial year 1940-41, under the various heads shown in the statement (*vide* Appendix 'A').

## II. CO-ORDINATION BETWEEN VARIOUS DEPARTMENTS.

One of the reasons which originally led to the creation of the Rural Development Department and the transfer of the field staff of various departments connected with work in the rural areas, to the combined "Co-operative and Rural Development Department" was the consideration that there was insufficient co-ordination between various Government departments working among the villages and the best results were not being achieved. The experiment of having all staff engaged on the work in the villages under one department, however, did not succeed, partly as it was found difficult to obtain officers, who had sufficient technical knowledge of the various departmental activities, to control and guide them properly. Government, accordingly, as already mentioned, revised these arrangements and transferred back the expert staff to the various departments to which they belonged. Steps were, however, taken at the same time to see that the departments did not work in separate water-tight compartments and that their activities were properly co-ordinated. As the rural development work

in the districts had been made the responsibility of the Revenue officers, the co-ordination of the activities of the various departments connected with the rural development was entrusted to them, and Government issued orders to Heads of various Departments to ask their subordinates to give full and unstinted co-operation to enable the Collectors to effect this co-ordination.

In order to make this co-ordination effective, instructions were issued to the Collectors to hold quarterly meetings of the chief local officials of all departments who are concerned with village activities. One such meeting is to be held before the start of the touring season in order that all departments may have an opportunity of working out the programme of rural development for the district, in which both the normal activities of the departments and any activities specially directed towards village improvement, can be co-ordinated into a combined scheme. During the year under review, these meetings were held regularly, and were well-attended. They served a very useful purpose, as through them different departments became acquainted with the activities and the view-points of other departments.

Prant officers were also directed to call meetings in each taluka, if possible, of the various local departmental officials to consider co-ordination of local activities. These meetings were held in various places and work in connection with the rural development was discussed.

The steps which Government has taken to co-ordinate rural development activities and bring officers of various departments together has not only led to greater collaboration between the departments directly connected with the rural development work, but has also led to the officers of many departments which have only a very distant connection with the village improvement work, to take more interest in these activities. It has, for example, been reported that in West Khandesh, the Forest officers carried on propaganda in forest settlements for persuading the settlers to send their children to schools and for keeping their settlements clean. They also provided them with certain amenities. In the same district, the Police officers, while on tour, are reported to have advised villagers not to store manure near houses and to observe cleanliness and to send their children to schools. The Excise officers are also reported to have advised the villagers on general subjects like hygiene and education. In East Khandesh, the Excise officers took a lead in constructing a boarding house for the depressed classes at Jalgaon. They collected Rs. 3,591 and have secured a plot for the boarding house.

The work of several departments more directly concerned with rural development has been described in subsequent chapters.

### III. AGRICULTURE.

#### (1) LAND DEVELOPMENT.

The problem of soil erosion, especially in the Deccan, is very important for the agriculturist, as the run off of water after rain removes large

quantities of good soil, thus rendering the land less cultivable. This can be largely prevented by the scientific lay-out and construction of small field bunds on contour lines. During the year under review, this activity was undertaken in most districts in the Deccan with good results. In the East Khandesh District, 945 bunds at 13 centres were constructed, protecting an area of 3,500 acres. In the West Khandesh, Nasik and Poona districts, the total area bunded was 3,796, 4,322 and 1,800 acres respectively. The Dhulia Taluka Development Association was awarded a prize of Rs. 100 for doing good bunding work. Prevention of soil erosion has assumed considerable importance in the Ahmednagar District, as certain tracts get irregular and insufficient rainfall and preservation of moisture by means of bunding, ridging and constant crop interculturing is a great necessity. The total area that was bunded in this district was 1,000 acres. A *pucca* dam was constructed to facilitate the silting up of the land and also for conservation of rain water at Nandgaon, by which method 100 acres of new land will be brought under cultivation. In the Sholapur District also, owing to the vagaries of the monsoon, the problem of scientific bunding is of great importance. The Bunding Sub-Overseer in this district executed 15 schemes costing about Rs. 6,250 on behalf of agriculturists who had applied for tagavi loans and 8 schemes costing Rs. 1,170 in respect of other private individuals. A Bunding Sub-Overseer was appointed in the Satara District to undertake bunding operations in selected talukas in the district. Construction of bunds is now in progress and an area of 600 acres spread over 35 villages has already been dealt with.

In the Southern Division, the bunding work actually executed was not considerable, but in the Bijapur and Dharwar districts, areas measuring 3,510 acres and 1,436 acres respectively were surveyed and plans prepared by the departmental staff for bunding projects. The work of execution of these projects is now in progress. In the Belgaum District, propaganda was undertaken and cultivators were advised and urged to construct bunds on contour lines. Bunds measuring 1,853 running feet have been constructed and further construction of 10,495 feet is in progress.

In the Northern Division, propaganda was also made in this connection and the benefits of bunding work brought to the notice of the cultivators. Three bunding classes were conducted in the Ahmedabad District and bunding operations were undertaken in the Thana District on 27 acres. In addition, encouragement was given to establish tree-growing on *Varkas* lands for preventing soil erosion. Propaganda was carried on in the Broach Sub-Division and the necessity of preventing soil erosion was impressed upon the cultivators who were advised to construct field embankments and erect cotton stalk check bunds in the gullies.

*Extension of Dry Farming Methods.*—The “Bombay Dry Farming System”, which has been most successfully worked out and adopted on Government Experimental Farms, is being popularized through the agency of the district staff. This system consists mainly of protecting

the surface soil with bunds on contour lines, levelling the field surface, inter-culturing of crops and wider sowing, etc. These methods were successfully adopted in certain districts in the Deccan, such as Nasik, Ahmednagar and Poona. Wider planting of crops like jowar, sugarcane and cotton was adopted by cultivators in Malegaon, Baglan, Nandgaon and Yeola talukas of the Nasik District. Wider sowing by new seed drills and systematic inter-cultivating of crops were also adopted in the Ahmednagar and Poona districts in areas covering 8,000 and 1,200 acres respectively. Dry farming methods, such as wider sowing and inter-culture, were advocated in some talukas of Satara District and in an area of 139 acres jowar was sown according to these dry farming methods. The Satara District Rural Development Board provided a grant of Rs. 250 to be distributed among co-operative societies and individuals undertaking such dry farming methods. In the Sholapur District, during "Farmers' Week", cultivators were shown the work on the Dry Farming Research Station at Malegaon and the advantages of adopting these methods were explained to them.

## (2) INTRODUCTION OF

### (i) *Improved Tillage Methods.*

Activities under this head consist of grading of seed with suitable sieves, dibbling of seed, wider sowing of crops, planting of sugarcane, etc., in ridges and furrows instead of in flat beds and wider transplanting of rice seedlings. Grading of seed with sieves enables easy rejection of bad and undeveloped seed and thus ensures good germination and higher outturns. Wider sowing not only effects saving in the seed rate but also facilitates interculturing and helps to increase the yield.

Suitable methods were advocated in different areas according to the nature of crops grown and are being adopted increasingly by the cultivators.

In the Nasik District, all seed distributed by the departmental staff was graded, while in the Nagar District, 25,000 lbs. of jowar, bajri and wheat seeds were graded by suitable sieves and, of the total area under these crops, 25 to 30 per cent. has been brought under the wider sowing method. Similarly, in the Poona District about 1,200 acres have been sown under jowar by the improved drills after the seed was suitably graded. In the Satara District, propaganda urging the grading of jowar seed by means of suitable sieves was undertaken through the district staff and the Taluka Development Associations and 10,240 lbs. of jowar seed was sieved and distributed for future sowings. Planting of sugarcane in ridges and furrows instead of in flat beds is a very useful practice which was extended in all districts where sugarcane is grown:

### (ii) *Improved Implements.*

By means of demonstrations and propaganda, the advantages of new and improved implements were brought to the notice of the cultivators and various agencies were provided through which such implements

could be purchased or obtained on hire. Departmental Implement Depots, Implement Supply Societies, Taluka Development Associations, etc., have proved very useful agencies in this respect. They stock iron ploughs, iron levellers, ridgers, improved harrows, winnowing fans, chaff-cutters, sprayers, dust guns and plant pullers, etc. according to the requirements of different tracts and sell such implements outright or give them to the cultivators at a nominal rate of hire. This work figures very prominently in the work undertaken by Taluka Development Associations. In almost all districts the demand for iron ploughs and accessories is on the increase and is now being satisfied through local agencies.

In addition to the ordinary implements, iron mhots, wheat and cotton drills, plant pullers, and Allan-Gandhi harrows were largely in demand in Gujerat. In the Poona District, ploughs, petaries, spray pumps and dry farming sets worth Rs. 2,000 were supplied through the Taluka Development Associations and the Agricultural Department and 36 power crushers were supplied by Taluka Development Associations on hire. Use of the dusting machines supplied by the District Rural Development Board to each taluka and peta in the Ratnagiri District was allowed gratis to the cultivators.

In districts where sugarcane is grown and especially in the canal tracts, power crushers are being used to an ever-increasing extent and the use of improved furnaces is also being advocated. In the sugarcane tract of the Belgaum District, 50 gul-furnaces of the Poona type were built for which work the services of trained masons were provided at the District Rural Development Board's expense. Such furnaces are getting popular in the Poona District also. In the Satara District, to popularize the use of Poona furnaces, an amount of Rs. 300 has been set aside by the Rural Development Board. Twenty-four such furnaces have been already built.

### (iii) *Manure.*

Propaganda was carried on to encourage the supply of organic manure in different forms and to increase the use of such manure in order to increase soil fertility. Pits for storing farm yard manure were dug in many districts and farm vegetable waste, instead of being burnt, was converted into compost in many villages. Cart-loads of such compost manure were made and used by the cultivators.

In the Ahmednagar District, on account of the scarcity of farm yard manure, Sann green manuring is advocated in the canal tracts. Large quantities of oil-cake were bought for use in top-dressing of sugarcane in the same district. The Sann crop is now almost universally utilized for green manuring. It is mostly used in the canal areas for manuring sugarcane, tobacco and other irrigated crops. In some places, Dhaincha is similarly used. In the Satara District, in order to popularize the construction of model manure pits a sum of Rs. 300 has

been sanctioned by the Board from which a donation of Rs. 5 is made for each model pit. Rs. 200 is also set aside for grants to cultivators who use green manure. In the East Khandesh District a sum of Rs. 1,000 was given to the Taluka Development Associations as interest-free loan for popularizing bone meal manure. The preparation of bone meal by the charring process was demonstrated at many places in the Thana District.

Large quantities of oilcake and commercial fertilizers were sold and most of the Taluka Development Associations now stock and supply such materials. Irrigated tracts are the chief centres for this trade. In the Thana District, the Bombay Provincial Co-operative Bank opened 30 depots for supplying at cost price oilcake and other fertilizers to agriculturists to whom tagavi loans were granted in the cyclone affected area. Oilcake worth Rs. 30,000 was thus supplied up to the end of March and a further supply worth Rs. 30,000 was made before the end of June.

Denatured salt was also used as manure for mango, cocoanut and other fruit trees, especially in the coastal districts. The use of bone meal manure for fruit trees showed a steady increase in almost all districts during the year. The statement in Appendix 'B' shows the quantities of different kinds of manure distributed in different districts. It also shows the number of pits dug for storing farm yard manure and the cart-loads of compost prepared.

### (3) SEED MULTIPLICATION AND DISTRIBUTION.

Under this head, two kinds of activities are undertaken ; one is the intensified production and distribution of improved seed and the other is the supply of improved seed which is not locally available. The work done in the various districts is summarised below :—

In the East Khandesh District, 1,349 bags of Jarilla cotton seed were distributed among the members of co-operative societies. Nearly 3,600 lbs. of pedigree seed of wheat strain No. 224 obtained from Government Farms were distributed to four centres and 720 lbs. of Pusa wheat strain No. 111 were given to one society for multiplication. In the West Khandesh District, Rs. 600 was given by the District Rural Development Board to four Taluka Development Associations for purchasing and distributing improved seed. Use of Jarilla cotton seed was encouraged by supplying it to tagavi borrowers round about Nardhana. Forty-three tons of cane sets were distributed in Sakri Taluka on condition of their return next year to the Board for further use. In addition to the above seed distribution, the Taluka Development Associations have been very helpful in distributing seed of Jarilla cotton, Akola bajri, Pusa wheat, Naylo Dadar, Lucern grass and vegetable seeds. In Nasik and Nagar districts, large quantities of improved seeds of Akola bajri, Banilla cotton, different types of groundnut, Pusa wheat and

sugarcane sets were supplied. In the Ahmednagar District, first class seed growers were selected in some talukas to multiply Banilla cotton seed and other grain seeds like jowar, wheat and bajri. Improved seed was secured from them, and also obtained from departmental breeding centres, and supplied to cultivators as shown in the statement (Appendix 'C'). Large quantities of seeds of Akola bajri, Banilla cotton, groundnut, wheat and sugarcane sets were also distributed in this district. In the Satara District, the use of improved seeds is being encouraged through the departmental staff. In consultation with the Taluka Development Associations, an amount of Rs. 1,650 has been expended on the supply of such seeds. In the Sholapur District, in addition to the seeds distributed by the Agricultural Department which are mentioned in the statement (Appendix 'C'), the Taluka Development Associations also distributed seed of improved crops in large quantities.

In Ahmedabad District, the District Rural Development Board spent Rs. 600 in giving 10 per cent. concession on the prices of improved seeds. In the Surat District, the District Rural Development Board has approved of the model seed multiplication scheme framed by the Director of Agriculture, according to which seed of improved jowar varieties is to be supplied to selected khatedars in jowar-growing talukas for multiplication and further distribution next year. A new type of green manure for cotton, viz., "Dhaincha", was introduced as an experimental measure. Twenty khatedars were selected for the purpose who were supplied with the Dhaincha seed free of cost. In the Bombay Suburban District, pure seed of Kosamba rice was obtained from the Karjat Farm and supplied to the villagers round about Borivli. The Taluka Demonstration Centres and three Taluka Development Associations in the Thana District supplied pure seed to the agriculturists. This was done through 30 depots opened by the Dahanu Taluka Development Association from the funds supplied by the District Rural Development Board.

Nearly 56,000 lbs. of ordinary improved seed (paddy) and 3,180 lbs. of pedigree paddy were distributed at 25 per cent. premium in the Belgaum District. Rust-resistant variety of wheat was also distributed through the Taluka Development Associations to the extent of 20,782 lbs. In the Dharwar District, roguing of paddy was done with a view to preserving the purity of seed of improved paddy strains. A roguing subsidy of Re. 1 per "heru" (2 bags) was given by the Board, thus ensuring the preservation of 2,400 bags of pure seed for further distribution. Thirty-nine lakhs lbs. of cotton seed were distributed in the district. The Wilson Anti-Famine Institute in the Bijapur District distributed 60 bags of jowar seed and 12 bags of groundnut in various villages during the sowing season. In addition, 230 bags of improved strains of jowar and 4,000 lbs. of wheat were purchased and stored for further distribution for sowing purposes. Paddy is the staple crop in the Kanara District and hence popularizing improved strains of this crop was an important item of the seed distribution work. Ten types

of improved strains were used and the total area under improved strains has increased to 20,900 acres from 14,250 of the last year. Nearly 51,400 lbs. was the quantity of seed directly supplied by the Board. The value of the increased production would come to Rs. 80,000. One lakh and twenty-five thousand improved sugarcane sets were also supplied for automatic spread. In the Kolaba District, improved strains of paddy to the extent of several khandis were supplied on the *Sarai* system to cultivators during the year 1940. A scheme for the multiplication and distribution of improved paddy strains has also been undertaken this year on the lines suggested by the Director of Agriculture. In addition to the quantities of seed distributed through the grain depots which are mentioned in the statement (Appendix C), the Taluka Development Associations in the Ratnagiri District distributed 16,321 lbs. of paddy and nagli seeds.

#### (4) CROP PROTECTION AGAINST

##### (a) *Insect Pests.*

The propaganda staff in all districts continued their efforts with regard to control measures against insect pests. Insecticides were distributed and necessary appliances for their application to crops were also provided on an extensive scale by the departmental agencies, who advised and instructed cultivators in their use.

In the canal area of the Ahmednagar District, the grasshopper control scheme has proved most effective. In this district, Dagdi jowar was affected by "army" caterpillars, but it was not possible to suggest any cheap remedy. The wheat crop was similarly affected but the damage was minimised by the use of lead arsenate sprays. In the Sholapur District, through the agency of the Taluka Development Associations, insecticides such as sulphur dust and barium carbonate were distributed and a campaign against the pyrilla pest on cane was carried out. In the Satara District, the district staff and Taluka Development Associations co-operated in advocating specific remedies against different insect pests. Spraying with tobacco decoction for leaf curl on chillies, use of "toximal" for "army" worm and caterpillars, use of tarred sheets for control of wingless grasshoppers and early planting of cane as a preventive measure against stem-borer attack were advocated and found to be effective.

In the Bombay Suburban District, a systematic campaign for treating cocoanut and brab trees against the cocoanut palm caterpillars was carried out. Control measures were adopted from funds specially made available by Government to check the pest on cocoanut and brab trees which was spreading in Bassein taluka.

Grasshoppers were controlled in the Dharwar District by the use of tarred tin sheets and cloth bags. Insects damage caused by jassids, bugs and caterpillars on vegetable crops was controlled by spraying with



different insecticides. The mango crop at Vengurla in Ratnagiri District was affected by the hairy caterpillar. This was treated by a mixture of lime and lead arsenate, which was found effective also in the case of some cocoanut trees.

(b) *Plant Diseases.*

In districts where the jowar crop is grown on a considerable scale, the seed is always treated with sulphur dust to prevent smut. Sulphur packets for this purpose were distributed either through the Taluka Development Associations or through the agency of the Agricultural Department in East Khandesh, West Khandesh, Satara, Ahmedabad, Broach, Bijapur and Dharwar districts. In the West Khandesh District, measures were also taken to control other plant diseases such as leaf curl on chillies. Propaganda was made to impress upon the mango owners the need of removing "Loranthus" and checking its spread. Measures for dusting mango trees against mildew and hoppers were also taken. Betelvine, which is an important crop in Bassein and Palghar talukas of the Thana District, is being affected by a wilt which often entirely destroys the crop. In the case of mango trees, which become affected by mildew and hoppers, dusting the inflorescence with sulphur two or three times in the flowering season is found to be effective. The Thana District Rural Development Board has requested Government to pass a Pest and Diseases Act which is under consideration. Koleroga, which is a serious disease of betelnut palms, causes damage worth 7 lakhs annually in the gardens of the Kanara District. To combat it, an intensive campaign of spraying the palm top with bordeaux mixture was undertaken. Owing to the misconceived opposition of some gardeners, however, this work received a setback and the area sprayed was only 1,758 acres.

(c) *Wild Animals.*

To prevent the ravages of crops by wild animals, measures are being undertaken through the organization of Gun Clubs in different districts. In the East Khandesh District, there are 13 such Gun Clubs on which the District Rural Development Board spent Rs. 1,494 for the supply of ammunition and guns. Nearly 860 wild pigs and 400 nilgais were killed and damage to crops was thus reduced by 25 per cent. In the Nasik District, there was a sporadic attack of rats on lucern grass and wheat which was checked by treatment with lead arsenate. In Satara, Wai and Koregaon talukas, of the Satara District, 16 Gun Clubs came into existence and 89 wild animals were killed. The District Rural Development Board has distributed a sum of Rs. 200 among these clubs. A special Shikar Officer is posted in the Kaira District for the organization and conduct of Gun Clubs. Ten Gun Clubs were accordingly formed and 1,338 nilgais and pigs killed in the district. The results achieved were satisfactory and the clubs have proved themselves to be a boon to cultivators whose crops are protected. The popular opposition to the killing of these animals is fast dying out. The Board incurred an expenditure of Rs. 893 in

giving subsidies to Gun Clubs. For killing wild rats in the Broach District lead arsenate bait packets were distributed. In the Dharwar District, there were Gun Clubs at five places and the number of animals killed was 190. Nearly 20,000 acres of cropped area were saved from the ravages of wild pigs. The Taluka Development Associations in this district distributed barium sulphate for control of rats. In Kolaba, there are 3 Gun Clubs started in Pen Taluka and are working under the supervision of the Agricultural Department. Four shikaris have been appointed to help the Shikar Officer and 188 wild animals were killed during the year. In Kanara, there are nine Gun Clubs, four of which did good active work. In this district, monkeys caused great damage in garden tracts, especially to the banana crop. In order to keep them under control, Village Improvement Committees maintained village shikaris, who did good work in some villages. As the subscriptions are entirely voluntary, the Village Improvement Committees find it difficult to collect the amounts.

It may also be noted that Crop Protection Societies are doing good work in this direction. The Crop Protection Societies especially in the East and West Khandesh districts, where protection of crops is sought to be secured by the employment of watchmen, to protect crops not only from thieves but also from the ravages of wild animals. In the Southern Division, crops are protected especially from wild animals by the Co-operative Fencing Societies. There is a Crop Protection Society at Turkewadi in Chandgad Mahal of the Belgaum District, working as a Gun Club which was responsible for the destruction of 130 pigs, 259 jackals and 70 other animals.

#### (5) HORTICULTURAL DEVELOPMENT.

The Taluka Development Association at Raver in the East Khandesh District held a horticultural class where agriculturist students attended the lectures given by departmental officers. A mango show was held at Jalgaon and Rs. 249 were given away in prizes to cultivators who exhibited their mangoes. The District Rural Development Board gave a small grant for the scheme of revival of the Borsha type of mangoes. The Horticultural Demonstrator who was appointed by the District Rural Development Board in the West Khandesh District gave advice to the cultivators in the matter of laying out plots for fruit trees, pruning, manuring, budding and grafting and a number of fruit trees were accordingly treated. In Nasik, about 1,500 mosambi plants and a number of mango and santra grafts were supplied. In the Poona and Ahmednagar districts, fruit planting is becoming more popular even without much propaganda, and cultivators having good soil and irrigation facilities often resort to it. Twenty-five thousand plants of mosambi, plantains, popaya and grafted mangoes

were supplied in the Poona District. In the Satara District, advice was given by the officers of the department in the selection of land for fruit trees especially mosambi. An amount of Rs. 1,000 was set aside by the District Rural Development Board to supply mango grafts and other fruit stock at concessional rates to agriculturists. No less than 9,000 plants of mango grafts, mosambi, lemons, pomegranates, figs and guava plants were supplied to cultivators in Satara, Karad, Koregaon, Tasgaon and Patan talukas.

Mango grafts, budded lemon plants and guava plants were distributed in Dholka Taluka of the Ahmedabad District. The Assistant Horticulturist to Government also held classes in this district at five centres where he demonstrated useful items of horticultural practice. The Bombay Suburban District Rural Development Board provided funds for the establishment of a cashew nursery. There are large areas of Varkas lands in the Konkan on which fruit trees can be profitably grown. Mango grafts and cashew seedlings were supplied to agriculturists on requisition and the services of malis were made available to them for preparing grafts, layerings, budding, etc. The Divisional Forest Officer was supplied with funds by the District Rural Development Board for opening kaju nurseries at three places. Four thousand plants consisting of mango grafts, chikus, orange, mosambis, lemon and grape-vine were distributed at half cost among cultivators in the Belgaum District, while, as a result of propaganda made in the Bijapur District, indents for about 1,200 mango grafts were received from 30 villages. Much progress was made in fruit culture in the Kanara District where pine-apple-suckers, chikus, Italian lemons, etc., to the value of Rs. 4,500 were supplied to cultivators at two-thirds cost. The large size and good flavour of the new varieties of pine-apple are attracting attention from outside and the cultivation of this variety is likely to develop in the district. Horticulture was encouraged in the Kolaba District by the supply of pine-apple suckers and Mehrun bor buds. Permits were given to three Patils to plant Alphonso mangoes on Government land. Arrangements were made in the Ratnagiri District through the District Rural Development Board for the free distribution of seeds and plants to deserving cultivators.

#### (6) ANIMAL HUSBANDRY.

Activities connected with the technical aspect of the breeding of cattle and distribution of premium bulls, etc., continued to be under the Live-stock Expert to Government. Considerable work was done, however, by the several District Rural Development Boards in popularizing suitable breeds, organizing co-operative societies and in the preliminary work of recommending grants for premium bulls. The Taluka Development Association at Jalgaon in the East Khandesh District received a grant of Rs. 2,730 for the Gilligan Cattle Breeding Farm in order to provide that institution with certain necessary facilities and an additional grant of Rs. 250 was also received by the Association for the purchase of cattle dip chemicals on condition that the Cattle Breeding Farm gave free dips to cultivators' animals in the neighbourhood of the Farm. Ten

Nimar cows and five heifers were distributed free among the Harijans of nine villages. As recommended by the Livestock Expert to Government, a grant of Rs. 500 was made to a villager at Borvahir in the West Khandesh District for starting a Khillar Cattle herd. In the Nasik District, the field workers carried on propaganda by explaining the benefits of keeping premium bulls, and nineteen premium bulls are now maintained in this area. In the Ahmednagar and Poona districts, five and ten breeding bulls respectively were supplied to agriculturists, and, in Poona District, 31 Khillar cows were also supplied to agriculturists on certain conditions for breeding purposes. In the Sholapur District, a sum of Rs. 1,000 was set apart for the purchase of Khillar heifers for distribution among approved cultivators in consultation with the Livestock Expert and on conditions prescribed for such distribution.

In the Kaira District, eight Gift bulls were kept at suitable centres and are giving good services. Two cattle rallies were also held and prizes worth Rs. 100 were distributed in each rally. A film has been taken of the Anand Rally and is being exhibited in other villages. Cattle improvement by extensive introduction of premium bulls and cows was also undertaken in the Panch Mahals Sub-Division of the Broach District, and in Surat and Thana Districts.

In the Bijapur District, 32 premium bulls were purchased and located at 32 villages. Two buffalo bulls were also given to two villages in order to improve buffalo breeding. They were regularly inspected by Agricultural officers and are maintained on the premium bull system.

Public interest is growing in recent years in better breeds of poultry and the improvement of poultry is now being undertaken on an ever increasing scale in the district.

In Nasik District, a sum of Rs. 75 was placed at the disposal of each Mamlatdar for the encouragement of poultry farms. The Kamgar appointed for this purpose in the Bombay Suburban District visited several villages and gave information and instructions regarding improvements in the poultry breeding. Cocks and eggs of the Rhode Island Red breed were supplied to the agriculturists.

In the Belgaum District, foreign breeds of poultry were introduced. Sixty Rhode Island Red and 24 White leghorn were supplied to cultivators at half the cost and small subsidies were given to six persons to construct poultry houses. The Dharwar District Rural Development Board gave Rs. 150 for poultry breeding schemes in two villages, for the construction of pens for birds.

The Poultry Kamgar at Raver in the East Khandesh District distributed to agriculturists 38 White leghorn cocks and 15 White leghorn hens and 285 dozen eggs of White leghorn breed.

#### (7) GRASS LANDS AND FODDER IMPROVEMENT.

In several districts Forest officers, while carrying out propaganda in forestry, also gave advice in connection with the control of grazing. They impressed on the villagers how very necessary it was to control grazing and to close forest grass lands to grazing in rotation. In the Poona District, alternative simple schemes of rotational grazing were drawn up by the Divisional Forest Officer, which have been selected for adoption by villagers in three cases. Such schemes were also supplied to the Deccan Agricultural Association which desires to follow them in improving the grazing conditions in Gogalwadi village. The subject of silage-making was also discussed with the villagers and they have applied for funds for demonstration purposes at three centres.

Funds were provided for preparing silo pits in Kalyan, Murbad, Wada and Mokhada in the Thana District in order to preserve grass in silage for use as cattle food, when fodder is scarce.

Silo pits were constructed at five villages in the Belgaum District and a subsidy of Rs. 100 for each pit was granted by the District Rural Development Board. The Better Farming Society at Hostritti in the Dharwar District was also given a grant of Rs. 80 for the construction of a silo pit.

#### IV. CO-OPERATION AND MARKETING.

The attention of the Co-operative Department in rural areas is largely concentrated on providing cheap and regulated credit to the agriculturists. Out of nearly 4,000 co-operative societies in rural areas, more than 3,700 are credit societies. These societies supply the need for credit which is felt by almost all agriculturists, but in addition to this, they are indirectly making substantial contributions to rural development in this Province. The present policy is to encourage these societies to advance crop loans by giving credit in the form of seeds, manures, etc. The societies are being advised to prepare indents for improved seeds and purchase the same through the Sale and Purchase Unions or the Taluka Development Associations and thus popularise improved varieties of seeds. In East Khandesh, some of these societies also purchase implements for the use of their members, while others have contributed for the purchase of stud-bulls and many others are helping the spread of education by contributing to magazines and periodicals. Many of the societies which have surpluses after the year's working, spend substantial sums for medical relief, construction of new approach roads and other common needs of members. The indirect contributions of village credit societies to the general rural development is not insignificant, but there are other co-operative organizations which are playing a more direct part in the programme of rural development. They are the Taluka Development Associations, Better Farming Societies and Multi-Purpose Societies.

(1) TALUKA DEVELOPMENT ASSOCIATIONS AND BETTER FARMING SOCIETIES.

The Taluka Development Associations which are co-operative societies registered under the Co-operative Societies Act, are doing useful work in connection with distribution of seed, manure, supply of implements on hire, treatment of crop pests and diseases and general propaganda, etc. A few of these Associations are not in a flourishing position, but majority of them are functioning very well, and in bringing home to the agriculturist the advantages of the improved methods of agriculture, and enabling him to avail of them, they have rendered a service second only to that performed by the field staff of the Agricultural Department. The activities of these Associations have been mentioned under various headings in the chapter on "Agriculture".

The Taluka Development Associations have large areas of operation, and mainly do propaganda work, while Better Farming Societies work within a much smaller radius and can do more concentrated work. They aim at promoting the adoption of improved methods of cultivation, joint purchase of agricultural requisites, joint sale of produce, improvement of livestock, fodder storage, development of cottage industries, etc. The Satral Better Farming Society in Ahmednagar earned an income of Rs. 368 by way of hiring out implements. The society also arranged for the sale of the produce of members of the local credit society. It proposes to purchase one cane-crusher and spray pumps. The Borvihir Better Farming Society in West Khandesh, though registered recently, is doing very good work. It distributed 2,675 lbs. of Jarilla cotton seed amongst its members. The sale of cotton was made co-operatively, which enabled the cultivators to realize substantially more than the price for local variety. The society also undertook demonstrations of the standing crops, compost making and improved variety of groundnut K-1, K-3. The members of this society took active part in the Village Improvement Week which was celebrated in May 1940. The Marewad Better Farming Society in Dharwar has undertaken bunding works and supply of improved seed to the members. It also supplied sulphur dust packets and gave iron ploughs to members on hire. The Better Farming Societies in the Ratnagiri District have been doing useful work with regard to production of vegetables, grafting of mango trees, and distribution of manure and seedlings. In the Bombay Suburban District, Poiser, Malad, and Mulund were selected for organization of Better Farming Societies and representative meetings were held at these villages. The advantages of bone-meal manure, the campaign against cocoon pest, sulphur dusting of mango trees and the distribution and multiplication of improved paddy seeds formed the subject-matter for discussion and the organization of Better Farming Societies was recognized as the fit medium to secure them.

## (2) MULTI-PURPOSE SOCIETIES.

After the organization of the Co-operative and Rural Development Department, vigorous propaganda was carried on amongst the agriculturists for explaining the utility and advantages of Multi-Purpose Societies. As a result of this propaganda, till the 30th June 1940, 54 Multi-Purpose Societies were registered, while 11 Agricultural Credit Societies were converted into Multi-Purpose Societies, bringing the total to 65. The progress of development, however, became much slower thereafter and during last months of the year under report only 5 new societies were registered. This reduction is to some extent due to the fact that these societies are yet in an experimental stage, and till the working of the societies which have been already organized has been watched, it is undesirable to register a very large number of new societies. The other reason which was responsible for the drop in the registration of the new societies was the fact that the bulk of the Rural Development staff, which had assisted in the organization of the new Multi-Purpose Societies, was transferred from the Co-operative to the Revenue and the Agricultural Departments.

The Multi-Purpose Societies are generally organized at minor market places with a view to provide finance for cultivation needs and also to arrange for the sale of produce of the agriculturists who are financed by these societies. These societies are doing good work in supplying pure seed, improved implements, selling members' agricultural produce besides affording credit facilities to them. The Junnar Multi-Purpose Society has undertaken the sale of agricultural produce like onions and gram. The Kelwa-Mahim Multi-Purpose Society in the Thana District has undertaken the work of supplying manure to its members, while the Bassein Multi-Purpose Society has supplied manure, coir, and requisites necessary for cultivation of plantains and of betel-vine crops. The Jawalwadi Co-operative Multi-Purpose Society in Satara opened a weaving centre for training agriculturists in weaving. It has also undertaken schemes of village sanitation, construction of roads, medical aid to villagers and establishment of library. The Aldar Co-operative Multi-Purpose Society in Broach District was registered in 1939 and collected a share capital of over Rs. 1,200. The cotton brought by its members for sale was divided into three classes. The total value of cotton sold through the societies was Rs. 1,13,000. The society also supplied articles of domestic requirements like rice, wheat, kerosene, tea and sugar. The society made a profit of Rs. 600 and was able to declare a dividend at 7½ per cent., and paid Rs. 40 to the charity fund.

## (3) OTHER CO-OPERATIVE ACTIVITIES.

Apart from the main types of co-operative institutions helping in the programme of rural development, there are a number of other Agricultural Non-credit Societies embracing various activities which conduce to the uplift of the rural population. The important amongst these are the Purchase and Sale Unions, Machinery and Implement Societies, Crop

Protection Societies, and the District Industrial Associations. The Purchase and Sale Unions which require special mention are the Nira Canal Purchase and Sale Union and the Kopergaon Purchase and Sale Society. These organizations are working in the canal areas and they get steady business from members of credit societies and help in effectively linking up credit with sale in these areas. The Surat District Purchase and Sale Union is also developing its business by establishing depots at suitable taluka places. These taluka centres also expect to organize co-operative marketing and supply agricultural and domestic requisites to members of societies. The Cotton Sale Societies, both in the Karnatak and Gujerat, occupy a very prominent place amongst the organisations through which the cotton crop of the Province is marketed. The Thasra Taluka Co-operative Cotton Sale and Seed Supply Society, which is the only society of this type in the Kaira District, is helping the agriculturists to realize better prices by selling cotton after pooling. Similarly, the Varna Valley Co-operative Sale Union at Islampur is helping the agriculturists in selling their produce consisting chiefly of gul and groundnut. It is rendering very useful service to its members in securing better prices for their produce. Mention may also be made of the Sheogaon-Newasa Agricultural Requisite Supply Society which undertakes the business of selling agricultural produce. It sells seed, fertilizers and fodder to its members. The Belgaum Co-operative Gardeners Produce and Sale Society, which mainly deals in vegetables is doing good business and sold vegetables worth Rs. 15,746 during the year. The Sankeshwar Agricultural Produce and Sale Society is also doing satisfactory work. It deals in agricultural produce, such as gul, chillies, pulses, cereals, etc. It sold produce worth Rs. 71,423. The two Sale Societies in Kanara at Sirsi and Kumta deal mainly in betelnut produce. The former sold betelnut worth Rs. 91,430 and the latter sold betelnut worth Rs. 7,343. There are also sale organizations in respect of other commodities like gul, chillies, mango, paddy, arecanuts, fruits, vegetables and eggs.

There are about 27 Crop Protection Societies in the Province. These societies are organized with the object of reducing the cost of protecting crops against pilfering by thieves and neighbours and damage by incendiarism and stray cattle and other animals. The activities of these societies have already been mentioned in a previous chapter.

A large number of machinery and implement societies have been registered in Ahmednagar, Poona and Dharwar districts. The activities of these societies consist of selling machinery and implements and giving them on hire to the members. The two Implement and Machinery Societies at Mundhwa and Nanded in the Poona District are working satisfactorily. They possess their own power crushers and crush the cane of their members and also manufacture gul for them.

Special mention may also be made of the Ahmedabad District Agricultural Well Construction and Irrigation Society formed with the object of constructing cheap cement wells to enable the agriculturists to resist



vagaries of rainfall to some extent. In Satara, there are two Irrigation Societies. These societies supply water from the Krishna River to their members for irrigation by erection of pumping plants and construction of channels. The crops irrigated by these societies covered an area of 60 acres of sugarcane and 3 acres of turmeric. The Dam Construction Societies in Kanara are also doing useful work. These societies have enabled the members to grow successfully paddy crop which used to be spoiled by the mixing of sea water with the river water during high tides before the construction of dams by these societies.

There are also a number of Cattle Breeding Societies in this Province. The Cattle Breeding Society at Dahiwad in West Khandesh is doing useful work. It has maintained one Khillari breeding bull. The Shera Co-operative Cattle Breeding Society in Broach is also working satisfactorily. The society has bought a breeding bull of Kankrej type from the Chharodi Cattle Breeding Farm. It has also maintained a stock-man to look after the cattle and has provided agriculturists with bullocks. The society has adopted the rotational method of grazing cattle with a view to conserve grass.

#### (4) GENERAL MARKETING WORK.

The Chief Marketing Officer and the staff under him who form a section of the Co-operative Department have been rendering help and giving useful assistance to the Co-operative Sale and Purchase, and Multi-Purpose Societies in disposal of their produce and purchase of requisites. Consequent on the enactment of the Bombay Agricultural Produce Markets Act, 1939, steps have been taken to explore the possibilities of establishing regulated markets at various centres in the Province. The cultivators were induced to get their produce graded under AGMARK, and commission agents and other merchants were also persuaded to pay adequate price for the graded produce. The scheme for the organization of the Provincial Co-operative Marketing Society was prepared during the year under report. The possibilities of starting fruit and vegetable sale, manure supply, paddy sale, and egg sale societies, etc. were investigated.

In addition to the above, the Co-operative Sale Societies in the East Khandesh District were given all possible assistance for developing a market for bananas in Bombay, when a shortage of this fruit was experienced as a result of the destruction of plantain gardens in the Bassein area by cyclone in October 1940. Concessional rates were secured from railways for transport of bananas and arrangements were also made for regular supply of railway waggons to the societies for transport of their bananas. During the year 1940, the coastal traffic on the west coast of this Province was seriously affected due to the situation created by war. Difficulties of transport of mangoes, which constitute the most important commercial produce on the coastal districts were anticipated long before the mango season commenced and arrangements were consequently made to make the following alternative transport

facilities available to the consignors of the mangoes from the Ratnagiri District :—

(1) The proprietors of motor launches normally utilized for fishing traffic were persuaded to utilise them for transport of mangoes to Bombay.

(2) Special reduced rates at Re. 1 per maund, via Belgaum to Bombay and 14 annas per maund via Kolhapur to Bombay were secured for transport of the mango packages by rail. The motor launches transported about 18,000 mango packages containing about 14,00,000 mangoes from Konkan to Bombay.

*Grading and Standardization.*—The marketing staff also devoted considerable time towards popularizing the various agricultural commodities under AGMARK. Under the Agricultural Produce (Grading and Marking) Act (India Act No. I of 1937), specifications have been defined for different grades of each commodity and the persons authorized to grade particular commodities have been supplied with labels for attachment to the graded produce. These labels have been given different colours which indicate the grade specifications, e.g. white, red, blue. It is hoped that this grading of the produce will benefit both the producer and the consumer, as the producer will be able to get better prices for the produce of a higher quality and will be encouraged to improve the quality of his produce, while the task of the consumer will become easier, and he will be able to get standard produce of a recognized quality at fair prices.

During the year under report, in Kaira attempts are made to locate suitable centres where grading of ghee could be popularized. Preliminary enquiries have indicated that it will be possible to develop centres for packing graded ghee if certain facilities, such as help of an expert chemist and a suitably equipped laboratory are placed at the disposal of the producers for the purpose. The scheme of grading of 1027 A. L. F. cotton in the Surat District formed an important part of the activities of the marketing staff. Grading of this cotton was done at Surat, Bardoli, Kusumba and Vijalpore.

Attempts were also made to popularize the grading of Alphonso mangoes in the southern part of the Surat District.

The work of organizing and popularizing grading of mosambis was done in Poona and Ahmednagar districts under the guidance and supervision of a Mosambi Grader appointed specially for the purpose. Over 12 lakhs of mosambis were graded in the Ahmednagar District in the year 1940-41, and 3,39,792 mosambis were graded in the Poona District. Both the Ahmednagar and Poona District Rural Development Boards gave grants for developing this work. An experimental santra grading scheme was started in East Khandesh during the year with the help of a small grant made available by the Agricultural Marketing Adviser to the Government of India, Delhi. The work of this scheme started in the middle of November 1940 and continued till the end of the year under report. Authorization certificates for grading santras were issued to the Co-operative Fruit Sale Societies of Jalgaon

and Raver talukas and services of the Santra Grader were provided for grading of santras. The total number of santras graded from the 15th November 1940 to the 31st March 1941 amounted to about 90,000. Grading of eggs has been in progress in various places like Yelloor, Sangola, Belgaum and Turkewadi, though progress in this direction has not been satisfactory in view of the peculiar conditions governing the egg trade in the Bombay market. The question of organizing the grading of betelnut produce in Kanara is assuming great importance due to the difficulties experienced in marketing this commodity on account of the severe competition of betelnuts imported from outside. The possibilities of starting this work are engaging the attention of the marketing staff. Attempts to popularize the grading of Alphonso mangoes were made at Ratnagiri, Deogad, Malwan and Vengurla. In all, 41 consignors availed themselves of the services of these kamgars and nearly 1,46,000 mangoes were graded. The Marketing Inspector, Bombay, examined the possibilities of organizing a Co-operative Sale Society at Wada. Similarly, the possibilities of starting a Co-operative Fruit and Vegetable Sale Society at Bassein and a Manure Supply Society at Agashi have been examined. The grading of Zinia rice has also been introduced and tentative grade specifications have been laid down. Certificates of authorization under the AGMARK Rules were given to seven persons. The Hide Grading Station at Bandra continued to do good work during the year and in all, 73,416 hides were graded at this centre.

*Price Intelligence.*—The Price Intelligence Service was maintained and weekly bulletins regarding milk and buffalo trade in Bombay continued to be submitted to the Agricultural Marketing Adviser and published in the local papers. The telegraphic service between Bombay, Delhi and Mahesana on stocks and prices of buffaloes and milk was continued. Arrangements were made to post this information on black-boards in the cattle market in Bombay. During the course of the year, arrangements were also made to publish in the local papers, prices of graded and ungraded eggs and ghee.

A beginning was made from the 9th August 1940 to issue a weekly bulletin of prices prevailing in Bombay. For this purpose, prices of over 80 items are collected from the various markets in Bombay every Thursday (including the evening closing quotations) and bulletins issued and posted next day, i.e., every Friday. The work has been undertaken as an experimental measure and copies of the bulletins are being supplied to all Divisional Commissioners, District Collectors, officers of the Co-operative and Rural Development Departments, Agricultural Department, some of the co-operative societies and agriculturist producers and a few officers and individuals from other departments and Provinces.

## V. GRAIN DEPOTS.

Transactions of the agriculturists with their sawakars, especially in the backward areas, are often in kind and the sawakars charge an exorbitant rate of interest in respect of such transactions. To give relief

to the agriculturists in this matter, grain depots were first organized in Thana and proved a great success. Encouraged by the example of that district, the work of organizing grain depots in other districts, particularly in rice tracts and forests and other areas inhabited by backward classes, was pushed on during the year under report.

In West Khandesh, efforts were made to organize grain depots in 3 villages of Akrani Mahal and 2,400 lbs. of jowar were collected for the purpose.

In Nasik, a sum of Rs. 10,000 was made available by Government for starting grain depots in Igatpuri Taluka. Accordingly, 10 grain depots were opened which are conducted on the "Thana model". All the depots are working satisfactorily.

In Ahmednagar, a loan of Rs. 9,000 was obtained from Government for the purpose of opening grain depots for the Koli and Thakur population in Dangan. In Akola Taluka, 4 centres have been selected for the purpose and grain will be purchased and distributed in the next season.

Government sanctioned a loan of Rs. 10,000 for starting grain depots in the Mulshi Peta of the Poona District. Out of this, Rs. 5,000 was actually spent in purchasing grain for distribution in 32 villages. In the Khed Taluka, 5 grain depots to serve 38 villages have been opened and a loan of Rs. 8,650 has been sanctioned by Government for the purpose. These depots are working satisfactorily and the opening of more depots is under consideration.

It has been already stated that Thana led the way in the organization of grain depots. These depots were started many years ago in Mokhada and other backward tracts of that district, and are charging interest in kind at the rate of  $12\frac{1}{2}$  per cent. Grain depots have now been opened in other tracts of the district with an advance of Rs. 25,000 from the Government, to which another advance of Rs. 5,000 was added for extension of the work. These new grain depots charge interest in kind at 25 per cent.,  $12\frac{1}{2}$  per cent., of which is credited to the members' share account and the balance is utilized for the expenses of the depots and for paying off the Government loan. There is a great demand for more depots and a sum of Rs. 1 lakh has been asked for the purpose.

In Kolaba, paddy worth Rs. 23,200, which was advanced to the agriculturists of 585 villages during 1939, was fully recovered with interest in 1940 and the first instalment of the Government loan has been repaid. The grain was again advanced in the monsoon of 1940 and is now being recovered. Rs. 5,000 have been made available by Government for opening new depots in 1941.

In Ratnagiri, out of an advance of Rs. 25,000 from Government, paddy and nagli were distributed in 1940 through grain depots to 3,500 borrowers of 60 villages. Recovery of the advances was effected in full with 20 per cent. interest. These depots are very popular and more will be opened this year.

There are 13 grain depots in Kanara with a capital of Rs. 5,315.

## VI. RURAL INDUSTRIES.

In East Khandesh, a demonstration for hard and soft hemp fibre extraction and its manufacture was organized at Waghali, where ten students were taken up for training for a period of six months.

An amount of Rs. 175 was paid by the East Khandesh District Rural Development Board to 11 tanners of Chopda as interest-free loans for three months for attending the tanning class.

In West Khandesh, the Khandesh District Industrial Co-operative Association tried to popularize new and improved designs in shirting, coating, dhoties, chadars and saris and has been receiving grants from the Department of Industries.

In Nasik, the Department of Industries has secured an order for army blankets which are prepared from kamblis and ghongadies by wool weavers in villages. A Supervisor is posted to guide the weavers in this work. The Tanning Demonstration party is expected from East Khandesh and will start work at Satana. There are two Co-operative Industrial Associations at Malegaon and Yeola and one Weavers' Industrial Co-operative Producers Society at Vinchur in this district, which induce weavers to adopt new methods and designs. The Yeola Association is considered the best of these three.

There are five Industrial Institutions in Ahmednagar for cotton weaving, wool weaving, tanning, etc. Ten persons were trained in cotton weaving, another ten in tanning and 25 in wool weaving. The Ahmednagar Industrial Co-operative Association marketed handloom products of the weavers, of the value of Rs. 18,536. The work of supplying army blankets has also been entrusted to this Association by the Department of Industries.

The Sisal Fibre Institute at Ahmednagar was given by Government a grant-in-aid of over Rs. 5,000 to train fifteen apprentices with scholarships. In all, 27 candidates have completed their course.

In the Poona District, the Department of Industries organized a Coir-brush and Rope-making Demonstration at Poona. Ten unemployed youths of the Bhangi community were taken up and given a scholarship of Rs. 6 each per month for a period of six months. Practical training was imparted to students in spinning coir thread, the manufacture of rope, door brush mats and sanitary brushes.

In Sholapur, the Demonstration of Dyeing and Printing, working under the Director of Industries, was requisitioned to work at Karkamb and Mohol. The demonstration gave technical aid to the local dyers and weavers in the dyeing and printing of yarn and cloth. Local weavers took full advantage of it and are reported to have greatly benefited.

In Satara, rope-making is undertaken as a secondary occupation in almost all villages. One Bee Keeping Centre on modern lines was set up in Patan Taluka. The District Rural Development Board gave

scholarships of Rs. 30 each, to two students for training in poultry-keeping at Kirkee, a scholarship of Rs. 50 to one student for the course in weaving at the Poona Weaving Institute, and another scholarship of Rs. 100 to one student for the course in horticulture at the Government Fruit Experimental Station, Kirkee.

In Ahmedabad, the Government Dyeing and Printing Demonstration, which is a peripatetic institution, was stationed at Ahmedabad during the year. Free admission was granted to all dyers, printers and weavers. Two weaving schools were also organised by the Department of Industries for hereditary handloom weavers, where instruction was imparted in the use of fly-shuttle, lobby and double shuttle and in production of better cloth.

In Kaira, with a view to encourage tanning industry, 80 vats were got constructed at Nadiad for the Chamars. At the Tanning Demonstrations at Nadiad and Napad, improved methods of tanning were demonstrated with improved appliances. The leather tanned by these methods fetches better prices and has a ready demand.

The Kalak Tanners Producers' Society in the Broach District had a turnover of Rs. 1,411, while in Surat, the District Rural Development Board started a weaving class at Godsamba for the training of weavers in rural areas and a batch of six students was trained in all processes.

In the Bombay Suburban District, equipment for coir-making has been obtained for starting a demonstration of coir-rope making at Andheri.

The Department of Industries has maintained a Leather Working School at Bandra for providing practical and theoretical training in the art of boot and shoe making as well as manufacture of other leather articles on modern lines. During the year, ten students were admitted to the artisan course and five to the advanced course. The school is recognized by the Committee of Direction for Technical and Industrial Training which conducts its examinations. The school is making satisfactory progress and all the students appearing at the examinations were successful.

In Thana, the Department of Industries is running a peripatetic school for teaching weaving to agriculturists as a spare-time occupation. A tanning demonstration was conducted at Khardi and the Chamars were given Rs. 150 by the District Rural Development Board for buying tools and materials to carry on their work on improved lines.

Knitting was introduced as a spare-time occupation in certain villages in the same district. Mrs. Singh, the wife of the Divisional Forest Officer, trained some girls of the backward classes in this art at Narpad in Dahanu Taluka.

There are two Weaving Demonstration Centres and one Dyeing Demonstration Centre in the Belgaum District. Local weavers were taught the use of improved methods at these centres.

In the Bijapur District, 16 persons were deputed for training at the Government Wool Weaving Demonstration at Bijapur, for training in the improved methods of spinning and weaving and were given a stipend of Rs. 6 each per month during the course of training. Seven female candidates also received training at the same demonstration and seven improved "Charkas" were presented to them with a view to keep up their interest in spinning wool. A cotton weaving school for the agriculturists was organized at Bableshwar in Bijapur Taluka and two batches of students received training till the end of May 1941. A scheme for acquisition of land near a tank at Yelgur has been taken up to develop pottery industry, as the clay there is found to be suitable for the purpose.

In Dharwar, a sum of Rs. 500 was sanctioned from the Government of India grant for the purchase of improved handlooms for Kurbars who had received training at the peripatetic school at Madleri. These will be distributed among them on the condition that they pay one-third of the cost by instalments. A tanning work-shop has been completed at Haveri.

In Kanara, there is an industrial school at Honavar which is run by Mr. S. K. Kallapur, on behalf of the All-India Village Industries Association, where instruction is given in local village industries. Many students were trained in coir manufacture, button making and horn work. By the help of the grant given by the District Rural Development Board, ten persons were also trained in button making. At Honavar, there are two co-operative societies of the producers' type, one is a Coir Spinning and Weaving Society and the other is a Sandal-wood Producers' Society. The first manufactured coir articles worth Rs. 4,228, while the second produced sandal-wood articles worth Rs. 4,500, of which articles worth Rs. 3,548 were disposed of in Bombay. Each artisan is now getting Re. 1 per day as against 8 annas or 10 annas which he used to get formerly. A tanning class was opened at Akola where Chamars are trained in tanning by improved appliances. The training has been much appreciated and the products are much superior to those produced by old methods. There are 14 fish curing yards from which duty-free salt to the extent of 25,440 maunds was issued to fish curers for curing fish in the farm compound.

In Kolaba, there is a school for training villagers in coir rope and brush making at which ten students are receiving training.

## VII. COMMUNICATIONS.

In West Khandesh, the District Rural Development Board made grants to 7 villages to the extent of Rs. 350 for the construction of gutters on the condition that the villagers contributed an equal amount for the purpose. During the Village Improvement Week, repairs to approach roads were effected to an extent of about 170 miles and roads covering 18 miles were widened.

In Nasik, both through the voluntary efforts of the villagers concerned and with Government grants several roads in various talukas were constructed and repaired and many approach roads were maintained in good condition. The villagers of Rasegaon have provided murum-stone side gutters for their village road.

In Poona, repairs were effected to approach roads in Haveli, Bhimthadi, Khed and Mawal talukas and Ambegaon Peta. The District Rural Development Board made grants to some villages to enable them to carry out the work of repairing important roads. At Ambegaon in the Haveli Taluka, an approach road is being constructed by Sardar Raste with the help of the villagers.

In all talukas of the Satara District, schemes for the construction of new roads, repairing of old roads and the maintenance of village approach roads in good condition were undertaken with the help of grants to the extent of Rs. 2,478 made available either by the District Rural Development Board or from the discretionary grant of the Collector.

In Ahmedabad, 3 approach roads were constructed at a cost of Rs. 270, out of which Rs. 180 were paid from the Government of India grant.

In Kaira, work in connection with roads and village approach roads was executed at 11 villages with the aid of the rural uplift grant.

In Surat, one road the Goji-Sarbhon road was constructed by the villagers at a cost of Rs. 5,200, out of which Rs. 2,800 were contributed by the District Rural Development Board from the Government grant at its disposal. Proposals for dust-proofing sections of provincial roads passing through the villages have been framed and some work has been actually executed.

In the Bombay Suburban District, the District Local Board spent Rs. 11,593 on the construction and improvement of village approach roads at 7 places.

In Thana, approach roads were constructed at 4 villages from the Collector's discretionary grant and one approach road was also metalled in this district.

In Belgaum, an amount of Rs. 450 was spent in construction of roads and repairs to roads in 3 villages. Similarly, during the Village Improvement Week, roads in almost all villages of the Chandgad Mahal were repaired by the voluntary labour of villagers.

A sum of Rs. 550, out of the Collector's discretionary grant, was made available in Bijapur for 4 village road works costing Rs. 875, while the villagers contributed the remaining amount.

In Dharwar, a sum of Rs. 3,754 was made available from the Government of India and the Provincial grants and was spent on 21 schemes in the form of construction of approach roads, culverts, pavements and repairs to roads, and more than 15 villages benefited by these schemes.



Nine approach roads were constructed and 4 approach roads were repaired in Kolaba, during the year under report.

In Ratnagiri, the District Rural Development Board spent on communications a sum of Rs. 4,041. In addition to this, the Collector also allotted sums for the repairs of some roads from his discretionary grant.

### VIII. IRRIGATION AND WATER SUPPLY.

In East Khandesh, a well at Chikhalkheda in the Pachora Taluka was constructed under the supervision of the Mamlatdar, for which the District Rural Development Board gave a grant of Rs. 100.

To impress upon the villagers the importance of self-help, a "Village Improvement Week" was celebrated in West Khandesh. During the Week, village wells (including Shevadies) are reported to have been dug at 79 places, while in 47 villages the wells already in existence were deepened.

Step-wells at Vasuli and Ambethan in Khed Taluka of the Poona District were turned into draw wells. The construction of a "Panotha" at Shidde-gavan and a well at Koregaon are in progress, for which the District Rural Development Board has allotted a grant of Rs. 108. In Ambegaon peta of this district, there is dearth of water and the District Rural Development Board has sanctioned Rs. 718 for the construction of new wells and ziras and repairs of existing water sources. Wells in other talukas were also repaired and deepened from grants made by the District Rural Development Board.

In Satara, the District Rural Development Board has made grants to the extent of Rs. 5,373 for the construction of new wells, deepening and repairing the existing wells, construction of hells and fixing *rahats* and similar purposes in several villages. The Board also sanctioned an amount of Rs. 3,109 for scarcity works (23 hells and 19 wells) in the Tasgaon Taluka. In 33 cases in this taluka, the villagers themselves undertook the improvement of local sources of supply and ten of such works have been completed.

In Kaira, improvements in arrangements for rural water supply, viz., construction of bunds and tanks, repairs to and deepening of wells, were carried out at 24 centres from the Government of India and Provincial grants. The works were executed departmentally by the Mamlatdars through the agency of the village officers. The works were such as would not fall under any other water supply schemes of Government, and the District Local Board would not take them up, as wells and tanks in question do not vest in that body. The works have provided work and livelihood to the villagers and have also satisfied the need for water in places where water scarcity was keenly felt.

In Thana, out of the funds sanctioned from the Collector's discretionary grant, a tank was dug at Talwad and another at Tomghar was deepened. A dam was also constructed near Kopri and a trough for cattle was built at Moj. The Divisional Forest Officer, Thana East, got wells constructed at 4 places mainly with grants from the Malki Teak Bonus Fund.

In Belgaum, an amount of Rs. 1,268 was spent on improvement of water supply at Satti, Telsang, Hukeri and Dhupdal.

In Bijapur, water works schemes at 5 villages were executed at a cost of Rs. 7,213, out of which Rs. 4,041 were given from the Government of India grant, Rs. 100 came from the Collector's discretionary grant and the balance was contributed by the villagers concerned.

Fifteen wells, out of which 7 are meant for Harijans, 1 for Wadars and 1 for Lamanis, were constructed in Dharwar. Out of these, one was completed by the District Local Board and one by the Public Works Department. Rs. 6,561 from the Government of India grant and Rs. 725 from the Collector's discretionary grant were made available for these items of work.

The Village Improvement Committee at Asnoti in Kanara repaired an old tank with the aid of Government grant of Rs. 333. Nearly 93 minor irrigation works were repaired by the Public Works Department at a cost of Rs. 20,566.

A small dam was constructed at Parhur in Alibag Taluka of the Kolaba District for the purpose of irrigating paddy crop. It cost Rs. 700 and it is estimated that about 73 acres can be irrigated by this dam. In addition to this, 7 wells and 5 dharans were constructed and repairs were effected in the case of 4 tanks.

## IX. PUBLIC HEALTH AND SANITATION.

In East Khandesh, the Inspector of Sanitation and Vaccination and the Medical officers of dispensaries visited villages with the rural uplift van and delivered lectures on general sanitation, malaria, cholera, tuberculosis, small-pox, etc. The importance of balanced diet was also impressed upon the villagers.

In West Khandesh, the Rural Development Board gave a grant of Rs. 290 for medical aid with which medicines were purchased and distributed amongst the Bhils and other villagers. The Civil Surgeon, while inspecting the dispensaries in the rural areas, met the members of village panchayats and discussed with them problems of rural sanitation. He also demonstrated on his rounds how malaria could be prevented by treating foul pools full of larvæ with kerosene. Other Subordinate Medical Service officers also attended a programme of the village uplift van and gave magic-lantern lectures on common diseases. Two touring medical-cum-propaganda units have been established in

Bhil areas at Nawapur and Taloda. Bhil Sudhar Samiti is also given a grant-in-aid by Government, and provides medicine chests to the teachers who look to the needs of the Bhils. The Ladies Health Association has employed a trained dai who visits villages within a radius of 10 miles and distributes medicines among women and children. The Inspector of Sanitation and Vaccination conducted propaganda for vaccination against small-pox.

∨ In Nasik, two nurses have been appointed, one at Lasalgaon to serve three centres and another at Mhasrul. A donation of Rs. 60 was made by Sardar N. G. Vinchurkar towards the pay of the nurse stationed at Lasalgaon, while donations of Rs. 60 from the Red Cross Association and Rs. 300 from the Lady Superintendent of the Government Girls High School, who organized a sale fete for the purpose, were received towards the pay of the second nurse. There is a Medical Relief Association at Malegaon working since 1937 which opens suitable centres in the taluka and provides free medical aid to villagers. During the year it opened 6 centres and provided medical assistance to 7,038 patients. A grant of Rs. 100 was made to the Association by the District Rural Development Board which was supplemented by another grant of Rs. 100 from the Collector's discretionary grant. The touring medical-*cum*-propaganda unit, Peint Mahal, visited 116 villages and treated 743 patients during a period of 4 months. The Medical officers and the officers of the Public Health Department also took keen interest in the rural uplift work and delivered lectures on hygiene and general sanitation.

In Ahmednagar, all the Subordinate Medical Service officers and the Subsidised Medical Practitioners took active part in the programmes of rural development. Some of them delivered lectures and showed magic lantern slides. Some Medical officers were in a position to get gutters built and latrines erected by persuading the Gram Panchayats of certain villages. The Civil Surgeon, during the course of inspection of dispensaries, visited such institutions as Taluka Development Associations, Agricultural Bias Classes and Sale Societies. The cholera epidemic was prevalent in almost all talukas in the Northern Sub-Division on a large scale, but prompt steps were taken to bring the disease under control by the appointment of Special Medical Officers for the purpose. The spread of small-pox was also prevented by vaccination.

In Poona, the Civil Surgeon paid visits during the year to 14 Allopathic and 11 Ayurvedic dispensaries in the district and impressed upon the Medical Officers the need for co-operation in all the rural development activities. He inspected wells and Child Welfare Centres and visited schools where he examined the school children. There is a Health and Welfare Centre at Mundhwa where on an average 235 patients per month were treated for simple ailments. The Lady Visitor attached to the centre attended 13 ante-natal and 10 post-natal cases per month. The average number of children being served with milk at the centre is 21 per day. A maternity Ward with two beds has also been opened at the centre. There was small-pox prevalent at some places in the Mawal

Taluka, but the spread was checked by adopting timely prophylactic measures. There is a District Local Board dispensary at Ambegaon which serves 48 surrounding villages. The villagers, who wish to convert this dispensary into a hospital, have collected Rs. 1,000 towards the cost of the building and are willing to contribute one-half towards its cost. There are Maternity and Baby Welfare Work Centres at many places in the district which are doing very useful work.

The Rural Development Association at Sholapur is running 4 Maternity Homes which are progressing satisfactorily. The midwives at Deogaon and Kumbhare have been provided with a common bullock-cart for visits to villages. During the period under report, plague, cholera and small-pox were prevalent in many parts of the district and preventive measures were taken by the Inspector of Sanitation and Vaccination. Vaccinators and anti-epidemic workers were appointed to cope with the work in the district. Arrangements were also made to keep the roads clean at the time of Palakhi camps and the Inspector of Sanitation and Vaccination also attended fairs at 3 places. There are 4 grant-in-aid dispensaries and 9 medical rural relief centres in the district which supply the needs of the villagers.

In Satara, there are 2 maternity centres, 4 medical help centres and several village improvement centres. Quinine was distributed in the Konkan tract of this district where the incidence of malaria is high. The District Rural Development Board has financed a maternity centre at Atit and made a grant to the extent of Rs. 350 for the construction of latrines at Vadgaon. Another grant of Rs. 750 was made to the Satara Health Association which performs several useful functions.

There are three table dispensaries in the Dhandhuka Taluka of the Ahmedabad District. All the dispensaries are rendering good medical aid to the villagers. Two dais were taken up for training in midwifery and a stipend of Rs. 25 per month was paid to them by the District Rural Development Board. A sum of Rs. 120 out of the Government of India grant was paid for 38 borehole latrines in 3 villages. Thirty-eight magic lantern lectures were delivered by the staff of the Educational Department on different health topics.

In Kaira, grants were made from the rural uplift funds to 5 villages for construction of latrines and urinals and for maintaining table dispensaries. The Inspector of Sanitation and Vaccination gave instruction in village sanitation and epidemics and visited 73 villages and examined 5,395 vaccinated children. Eight appointments of nurses and midwives are allotted to this district out of which one post is still vacant. The nurses' activities, so far as maternity work is concerned, are mainly out-door, as the in-door maternity facilities are too poor. It is now proposed to utilize their services for child welfare and health propaganda also. There are also 21 rural medical centres in this district, out of which 13 are Allopathic and 8 Ayurvedic.

In Surat, the Medical officers, in accordance with the instructions given by the Civil Surgeon, carried on propaganda for the adoption of preventive measures such as vaccination and revaccination, inoculation, etc. They have also carried out a leprosy survey in the villages surrounding their dispensaries. The Inspector of Sanitation and Vaccination took active part in the rural development programme. There were some cases of plague, cholera and small-pox in certain villages. The Inspector visited almost all the villages which were affected and vaccination and revaccination were carried out vigorously. He also delivered magic lantern lectures at many places.

In the Bombay Suburban District, the rural uplift work done by the Inspector of Sanitation and Vaccination was confined to propaganda only. He attended meetings called by the Collector and delivered lectures in certain villages on epidemics and general sanitation. There are no subsidised medical practitioners in this district.

In Thana, there were, in all, 20 table dispensaries run by teachers trained under the supervision of the Civil Surgeon. Free distribution of quinine was carried out by Medical officers and Inspectors of the Public Health Department. Chlorogen was supplied for disinfecting water against guinea-worm out of grants made from the Collector's discretionary grant.

In Belgaum, an amount of Rs. 600 was granted to the travelling dispensary and leper asylum managed by the Mission Hospital and another sum of Rs. 600 was given to the Bombay Baby and Health Week Association, to hold shows and exhibitions, which were held in 22 villages.

In Bijapur, 5 dais were trained at the class held at the Civil Hospital. Deganan tablets worth Rs. 73 were distributed in plague affected villages and a grant of Rs. 100 was made to the charitable dispensary at Shirur for medicines and instruments.

In Dharwar, medicine chests of 14 villages were replenished and a sum of Rs. 1,950 was handed over to the District Local Board out of the Government of India grant for the purchase of quinine and magnesium sulphate which were distributed in 118 villages. The Medical officers under the guidance of the Civil Surgeon co-operated in the work of rural development and visited 117 villages, gave lectures, disinfected several houses and performed 13,379 inoculations and 7,483 vaccinations and revaccinations.

In Kanara, the Civil Surgeon collected information from his subordinates regarding sanitary conditions of villages with a view to placing it before the District Rural Development Board for consideration and financial help. He delivered some lectures and gave a short discourse in Kannada in one village on questions concerning diet and health. Quinine and potassium permanganate were distributed for malaria and disinfection of wells. There are 12 Allopathic and Ayurvedic dispensaries in the district doing good work. The Hulgo Village Improvement

Committee constructed a building for dispensary at a cost of Rs. 3,000 and another building for the local dispensary was built at Kyadgi.

In Kolaba, anti-guinea-worm campaign was vigorously carried out by the Sanitary Inspector. Potassium permanganate worth Rs. 500 was distributed for disinfection of wells and 8th April was fixed as a "Special day" for the purpose. Quinine, chlorogen and other pills were distributed. Nearly 21,400 primary vaccinations and 5,521 revaccinations were carried out by the Public Health Department. There are 11 subsidised medical practitioners' centres and the attendance of patients at these centres is reported to be good.

In Ratnagiri, 8 dais were trained at the Civil Hospital at an expense of Rs. 460 paid by the District Rural Development Board which has also sanctioned Rs. 140 for giving certificates and rewards to villages doing good vaccination work. The Civil Surgeon gave lectures on the subjects of general sanitation and epidemics. Medical officers took all measures to stop the spread of plague and small-pox which were prevalent in some parts of the district.

## X. EDUCATION.

### (1) ERADICATION OF ILLITERACY.

The scheme of reducing illiteracy in rural areas by encouraging private enterprise to start schools on a voluntary basis is being successfully carried out. During the year under report, strenuous efforts were made to increase the number of these voluntary schools. These schools are normally in villages with a population of less than 700 and are paid equipment and maintenance grants by the Educational Department.

Another direction in which attempts are being made to reduce illiteracy in villages is by encouraging Adult Education. The question of Adult Education is of a great importance in rural areas, where most of the adults are illiterate. During the year under report, efforts were made to increase the number of Adult Education Classes, but progress in this direction has been rather unsatisfactory, mainly, it is stated, on account of reduction in the rates of Government grants allowed for the purpose. As old scales of Government grant have now been re-introduced, it is hoped that there will be better progress next year.

### (2) PROVISION OF SCHOOL BUILDINGS AND PLAY GROUNDS.

In accordance with the scheme for having school buildings for Primary Schools, many school buildings were constructed in the various districts during the year. In Nasik, in many villages, villagers have given buildings for voluntary Primary Schools where no untouchability is observed, and it is reported that there are now very few schools in that district which are held in the temples. The District Building Committee in the Poona District has not been able so far to put up any school

buildings, but its funds total a sum of Rs. 77,000 and it is hoped that 80 to 90 school buildings would be provided in a few years. In Sholapur, the work of construction of new school buildings was undertaken by the District Building Committee and five buildings were completed during the year under review, while 16 buildings are under construction.

The Primary School Building Committee instituted by Government for the construction of school buildings in Kaira has been functioning for the last three years and some new buildings have been constructed. In this district, a grant of Rs. 450 was made from the rural uplift funds for the construction of two school buildings and another sum of Rs. 250 was made available from the Collector's discretionary grant, for constructing a school building at Jichka, in the Matar Taluka. In the Bombay Suburban District, five school buildings were completed and four others are in progress.

In Belgaum, out of 32 school buildings, which were undertaken to be built by the Primary Building Committee, five school buildings have been completed and are ready for occupation, while the number of school buildings, which were completed in Kanara during the year, was 16 for which a grant of Rs. 25,000 was received from Government.

In Kolaba, the Collector helped three villages in Alibag Taluka with a grant-in-aid of Rs. 425 to complete their school buildings.

In Ratnagiri, four new buildings were completed during the year, six are under construction and seven more have been sanctioned.

### (3) PHYSICAL TRAINING.

In West Khandesh, two Gymnasiums were started in two villages during the "Village Improvement Week", while in Nasik, an Association managing Primary Voluntary Schools specially arranged for a course of physical training for its teachers. In Kaira, the District Rural Development Board gave a grant of Rs. 60 for a school gymnasium at Kunjrav.

### (4) VILLAGE LIBRARIES.

Attempts were made to start libraries for the villagers in several villages and in some places the villagers have evinced a keen desire to take advantage of the books provided at such libraries.

Grants to 14 village libraries to the extent of Rs. 500 were made by the District Rural Development Board in East Khandesh, from the Government of India grant.

In West Khandesh, the District Rural Development Board has decided to give grants to villages for libraries on condition that an amount equal to the grant is contributed by the villagers themselves. Grants to the extent of Rs. 270 were thus made to six villages.

In Nasik, a free reading room was opened at Mulher in 1936 and a subsidy of Rs. 25 was given for its library during the year under report.

In Poona, 2-3 villages in each taluka are provided with suitable literature for adults. These libraries are looked after by the school teachers. During the year, books worth Rs. 33 were supplied to the Kothrud village reading room. There are some libraries recently opened in some villages which are being availed of by the villagers.

Seven circulating libraries with 100 books each have been started for seven talukas in Sholapur for developing the reading habit among adult villagers.

There are a few village libraries in Satara and an amount of Rs. 590 is sanctioned by the District Rural Development Board for subsidies to these libraries.

Twenty reading rooms were opened in Ahmedabad in different villages, to which grants to the extent of Rs. 400 were made by the District Rural Development Board out of the Government of India grant.

In Kaira, grants varying from Rs. 30 to Rs. 100 were given to five village libraries.

The District Rural Development Board, Surat, sanctioned Rs. 1,000 for opening libraries in 20 backward villages and a committee has been formed to select the villages and the books.

In the Bombay Suburban District, two libraries in Malad were given grants for purchasing books, while in the Thana District, two libraries in Bassein and one in Thana Mahal were established from the Collector's discretionary grant.

In Dharwar, the District Rural Development Board purchased books worth Rs. 62-8-0 and distributed them to select village libraries. The Board also made a grant of Rs. 100 for purchase of books to the circulating library at Hosritti and another grant of Rs. 100 to the Aminbhavi library.

In Kaiwar Taluka of the Kanara District, ten libraries are opened for the use of members of co-operative societies and are being maintained by the societies concerned.

## XI. GENERAL PROPAGANDA.

### SHOWS, PUBLICATIONS, DEMONSTRATIONS, CLASSES, ETC.

Agriculturists in this Province, as in the rest of India, are conservative and are slow to take advantage of the improved methods of agriculture, etc. In order that they should keep pace with the modern improvements in agriculture and the use of improved implements, etc., constant



propaganda is necessary to bring home to them the benefits of these methods. Propaganda is also necessary to impress upon them the value of cleanliness, sanitation and education. Propaganda during the year under report was carried on by arranging lectures, demonstrations, agricultural shows, Village Improvement Weeks and Farmers' Weeks, lantern lectures and cinema shows. Activities in these directions, which were carried on in various districts, are summarized below.

A "Village Improvement Week" was organized in West Khandesh. During this Week, the villagers were taught the importance of self-help and were encouraged to keep the roads clean and to repair village approach roads and gutters. Leaflets were distributed and lectures were delivered on sanitation during this Week. Similarly, "Farmers' Weeks" were organized in Nasik, Nagar, Bijapur, Kanara and Ratnagiri. During these Weeks, the selected farmers were shown, at Government cost, agricultural improvements in crops and manures, and the methods of controlling pests and diseases as carried on in Government farms. Similarly, agricultural demonstrations were held in numerous village and taluka centres all over the Province, where the use of latest implements, the improved methods of agriculture, commercial fertilizers and horticultural improvements were demonstrated to the cultivators. Advantage of Jamabandi meetings was taken at many places to hold such demonstrations. With a view to encourage the improvement of the condition of live-stock, three cattle rallies were held in the Ahmedabad District, while two rallies each were held in the Kaira and Surat districts. Prizes were awarded at these rallies to the owners of good cattle.

"Tree Planting Days" were observed in East Khandesh and West Khandesh and more than two lakhs of trees were planted on these Days. By way of encouragement, prizes worth Rs. 205 were distributed in West Khandesh to individuals, villages and institutions. Unluckily, in the East Khandesh District, the dates selected were too late in the year to give the best results, and only a small proportion of the trees planted have survived.

In Ahmednagar, two exhibitions, one at Miri and another at Newasa, which were presided over by the Collector, were arranged and were attended by nearly 800 cultivators. Similarly, at Vadgaon and Vadgaon-Nimbalkar in Poona, two conferences were held which were presided over by the Collector, and at which the officers of the Educational Department delivered lectures on rural improvement. There were two shows held in Broach, one of which was held at the time of the annual fair at Shukla-tirth, while the other was held at Vora-Samni, when His Excellency the Governor of Bombay visited that place. The Director of Agriculture, in the course of his tour in Kanara, called two meetings at which representative gardeners were present.

Many lantern lectures were given by the officers of the Educational Department in West Khandesh, Poona, Sholapur and Kanara on such subjects as village sanitation, epidemics, education and war propaganda.

### VILLAGE UPLIFT VANS.

Another direction in which village propaganda was carried on was through the instrumentality of the Village Uplift Vans. There are three Village Uplift Vans maintained in the three Revenue Divisions, which toured through villages which were specially selected on account of their central position and where the villagers of neighbouring villages could conveniently gather. The vans contained models, charts and improved varieties of seeds, etc., which were displayed to the cultivators attending the vans' programme. At the time of demonstrations lectures were delivered by the officers of the Veterinary, Public Health, Co-operative and Agricultural Departments. At some places, to make the programme more attractive, agricultural and cattle shows, wrestling matches, ballad-singing and scout-games were also arranged and prizes awarded.

### VILLAGE FILM SCHEME.

The Village Film Scheme aims at combining war publicity with diffusion of useful knowledge on the subjects of village sanitation, vaccination, epidemics, education, etc., by the display of specially prepared and selected films in villages. The scheme has proved popular among the masses as it combines instruction with amusement and attracts thousands of villagers by its novelty. It also serves the purpose of adult education. The scheme was introduced in Ahmednagar, Kaira, Bombay Suburban, Thana, Belgaum, Bijapur and Kolaba during the year under report. Programmes in selected villages were arranged throughout these districts where villagers flocked for witnessing the performance.

The Ahmednagar District was provided with ten projectors, with accessories, and films on various subjects are supplied by the Director of Information every fortnight. The Film Scheme in Thana District was inaugurated by His Excellency the Governor of Bombay in Turumbhe (Thana Mahal) on 21st January 1941. Five projectors are provided for this district, and are worked by the Assistant Rural Development Inspectors and the Organizer, Medical-cum-Propaganda Unit.

### XII. TRAINING CENTRES FOR RURAL ASSISTANTS.

The scheme for training Rural Assistants for propaganda work in villages was laid down in Government Resolution, Revenue Department, No. 15/33, dated the 8th March 1939. The intention underlying the orders in the Government Resolution referred to above was that these Rural Assistants, when trained, should be employed as secretaries of Village Panchayats and Multi-Purpose Societies, or Village Credit Societies.

In pursuance of the plan referred to in the above paragraph, the first batch of 48 students from the Sabarmati Centre, after having undergone a course of training at Sabarmati for nine months, completed three months' training in specialised subjects at Poona on 23rd, December 1940. These Rural Assistants are now employed as secretaries of Village

Panchayats in the districts of Ahmedabad, Kaira, Broach and Surat, after having undergone further training for one month in the District Local Board offices of the districts where they are posted.

The Co-operative Societies which agree to employ the Rural Assistants as Secretaries are allowed their services free for one year in the first instance.

The three official centres at Dhulia, Manjri and Devihosur and the non-official centre at Bordi (district Thana) establishment of which was sanctioned last year, have started their work of training the Rural Assistants from May 1941, i.e., after the close of the year under report. Establishment of one more official centre at Broach for Gujerat was sanctioned after the close of the year and this centre has started work recently.

During the year under report, the administrative control of Rural Assistants' Training Centres has been transferred from the Registrar of Co-operative Societies and Director of Rural Development, to the Director of Agriculture.

I have the honour to be,

Sir,

Your most obedient servant,

(Signed) S. M. IKRAM,

Registrar, Co-operative Societies, and  
Director of Rural Development.

Accompaniments Appendices (A, B and C).

## APPENDIX A.

*Expenditure on rural development during the financial year, 1940-41, except that under the minor heads "42-A—Direction and 42-B—Superintendence", where separate figures are not available.*

<i>42-C—Grants-in-aid—</i>	Rs. a. p.
(1) Grant-in-aid to Co-operative Marketing, Co-operative Production and Better Living Societies .. .. .	6,019 10 0
(2) Grant-in-aid to Multi-purpose Societies .. .. .	4,012 0 0
(3) Grant-in-aid to Taluka Development Associations .. .. .	39,122 0 0
(4) Grant-in-aid to Local Bodies (Cotton Market Committees) .. .. .	320 0 0
(5) Grant-in-aid to Cotton Seed Distribution Schemes .. .. .	18,226 10 9
	67,700 4 9

*42-D—Other Charges—**D-I—Special Village Uplift Schemes financed from Provincial Revenues—*

(1) Pay of Establishment .. .. .	13,187 5 0
(2) Allowances and Honoraria .. .. .	1,567 1 0
(3) Contingencies .. .. .	16,868 10 10
(4) Grants to District Rural Development Boards .. .. .	18,230 11 0
	49,853 11 10

*42-D-III-(e)—Expenditure in connection with Rural Development—*

(1) Pay of Establishment .. .. .	43,253 6 0
(2) Allowances and Honoraria .. .. .	9,022 5 0
(3) Contingencies—	Rs. a. p.
(1) Expenditure on pig killing .. .. .	508 8 0
(2) Expenditure on Shikar work .. .. .	889 5 0
(3) Taluka Demonstration Centres and implements and seed depots at these centres .. .. .	8,939 13 6
(4) Seed multiplication and distribution .. .. .	2,466 1 0
(5) Cotton Transport checking stations .. .. .	3,373 11 6
(6) Bunding operations .. .. .	1,047 2 0
	17,224 9 0
	69,500 4 0

## APPENDIX A—contd.

*42-D-III-(h)—Scheme for improvement of Agricultural Marketing in India—*

	Rs.	a.	p.
(1) Pay of officers .. .. .	12,859	6	0
(2) Pay of Establishment .. .. .	5,677	3	0
(3) Allowances and Honoraria, etc. .. .. .	7,417	2	0
(4) Contingencies .. .. .	1,834	15	6
	<hr/>		
	27,788	10	6

*42-E-(f)—Additional temporary staff for the office of the Registrar of Co-operative Societies and Director of Rural Development—*

(1) Pay of Establishment .. .. .	2,771	7	0
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*42-E-(k)—Grants to District Rural Development Boards out of Special Development Fund*

.. .. .	65,575	0	0
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*42-E-(n)-(ii)—Training of Village Assistants—*

(1) Pay of Establishment .. .. .	3,974	6	0
(2) Allowances and Honoraria .. .. .	1,700	12	0
(3) Contingencies .. .. .	3,940	3	9
(4) Grants-in-aid .. .. .	15,402	8	3
(5) Works .. .. .	38,831	9	0
	<hr/>		
	63,849	7	0

Grant Total .. 3,50,860 10 1

*Note.*—The above expenditure is exclusive of that incurred by the Commissioners from out of the Government of India Grant of Rs. 1,60,000 placed at their disposal under Government Memorandum, Revenue Department, No. 1041-H/39, dated 1st May 1940. The allotment was distributed among the Commissioners as under :—

(1) Commissioner, N. D. .. .. .	Rs.	20,000
(2) Commissioner, C. D. .. .. .	70,000	
(3) Commissioner, S. D. .. .. .	70,000	
	<hr/>	
	1,60,000	

In addition, an amount of Rs. 40,000, from out of the Provincial Grant, was placed at the disposal of the Collectors as discretionary grant, under Government Circular No. 1041-39 (Conf.), dated 4th October 1940,

APPENDIX B.

*Distribution of Manures.*

MOSN BSH 1105-4

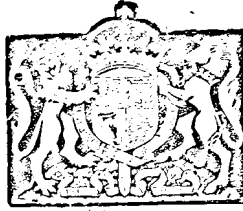
Serial No.	Name of the District.	Sulphate of Ammonia, Oil cakes, groundnut cake, and castor cake and other varieties.	Sann Seed.	Bone Meal Manure.	Pits for Farm Yard Manure.	Cart loads of compost.	Red Label Mixture.	Denatured Salt.	Other manures.
1	2	3	4	5	6	7	8	9	10
		Lbs.	Lbs.	Lbs.			Lbs.	Lbs.	Lbs.
1	East Khondesh ..	112,000 were distributed by Mhasavad Society (Oilcake).	.....	.....	.....	.....	.....	.....	.....
2	West Khondesh ..	113,600 ..	10,140	4,280	(1,170) 50 Agricultural Department.	630	2,027	.....	.....
3	Nasik ..	1,400,700 ..	308,052	4,480	440	1,007	.....	.....	.....
4	Nagar ..	6,720,000 (Ammonium Sulphate).	83,000	.....	.....	.....	.....	.....	900
5	Poona ..	27,000 (Oil Cake) ..	15,000	.....	64	.....	.....	.....	.....
6	Sholapur ..	42,000 ..	2,600	8,600	.....	.....	.....	.....	.....
7	Ahmedabad ..	3,040 ..	0,600	4,780	.....	.....	.....	5,600	.....
8	Broach ..	.....	22,440	.....	.....	.....	.....	2,400	8,800
9	Bolgaum ..	34,940 ..	.....	.....	51	.....	.....	.....	.....
10	Kanara ..	22,400 ..	.....	13,440	.....	.....	.....	8,000	.....
11	Ratnagiri ..	.....	.....	.....	100	.....	.....	.....	.....

APPENDIX C.

Seed Distribution Work.

Serial No.	Name of the District.	Banilla Cotton and Other Cotton varieties.	Jarilla Cotton.	Akola Bajri and other varieties.	Wheat of different varieties.	1027 A.L.F. Cotton.	Groundnut of different varieties.	Sugarcaue.	Jowar of different varieties.	Rice of different varieties.	Other Seeds.
1	2	3	4	5	6	7	8	9	10	11	12
		Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
1	West Khandesh .. ..	....	84,108	15,292	38,491	6,902	75,152	60,200	745	1,366	1,870 Naylo Dadar. 36,000 All kinds.
2	Nasik .. ..	....	49,802	24,032	38,068	....	....	....	....	4,300	....
3	Nagar .. ..	37,000	....	....	8,000	....	30,000	....	4,000	....	50
4	Shotapur .. ..	2,000	2,000	225	1,450	....	2,200	2,000,000	1,000	....	....
5	Ahmedabad .. ..	4,585	....	7,980	35,800	....	150	....	26,500	....	945
6	Broach .. ..	....	....	....	800	....	....	....	7,942	....	....
7	Belgaum .. ..	....	....	....	20,782	....	....	....	....	59,592	877
8	Ratnagiri .. ..	....	....	....	....	....	....	....	....	7,982	546

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Annual Administration Report of the  
Rural Development Department  
in the Province of Bombay

2 JAN 1942 For the Year 1941-42



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1942



No. RUL./15.

Poona I : 27th July 1942.

From

S. M. IKRAM, Esq., I.C.S.,  
Registrar, Co-operative Societies and Director of Rural  
Development, Bombay Province, Poona I ;

To

THE SECRETARY TO GOVERNMENT,  
Revenue Department, Secretariat, Fort, Bombay.

*Subject.*—Administration Report. Rural Development  
Department.

Sir,

I have the honour to invite reference to Government Resolution, Revenue Department, No. P. 397, dated 10th May 1941, on the subject mentioned above, and to submit herewith the Annual Administration Report on the working of the Rural Development Department for the year ending 31st March 1942. As required by paragraph 4 of the Government Resolution referred to above, it has been considered and generally approved at a meeting of the committee consisting of the Commissioners of Divisions, the Director of Agriculture and the Registrar of Co-operative Societies and Director of Rural Development, held on 11th July 1942.

#### I. ADMINISTRATION.

##### (1) STAFF.

2. The responsibility for the control of the Rural Development staff and the co-ordination of rural development activities continued to be with the officers of the Revenue Department. The question of the lines on which the Rural Development staff, especially the Assistant Rural Development Inspectors, should function was considered at the Collectors' Conference held in Poona in September 1941 and in the light of the discussion at the Conference, Government issued detailed instructions indicating the lines on which the most effective use could be made of the Assistant Rural Development Inspectors in furtherance of the rural development programme for each taluka.

The Shikar staff (consisting of 2 Shikar Officers of the rank of Rural Development Inspector, and 7 Assistant Shikar Officers of the rank of Assistant Rural Development Inspector) which was assigned to the Agricultural Department on deamalgamation, was transferred to the Rural Development Department and placed under the administrative control of the Divisional Commissioners from 1st March 1942.

Except for the addition of the shikar staff as mentioned above, the strength of the Rural Development Inspectors and Assistant Rural Development Inspectors working under the control of the Revenue Department remained the same as under :—

Rural Development Inspectors	..	19
Assistant Rural Development Inspectors	..	132

3. The question regarding the formation of a separate cadre for the Rural Development Inspectors and the revision of pay scales and prospects of the Assistant Rural Development Inspectors is at present under the consideration of Government. It is expected that when these proposals materialise it will be possible to attract better type of recruits to these posts.

#### (2) RURAL DEVELOPMENT BOARDS.

4. Under the new rural development plans of Government, it was considered necessary to reconstitute the Provincial Rural Development Board so as to bring it into closer touch with the rural development activities in the districts, with the co-operative organizations and with various Government Departments concerned with rural economy. Accordingly, Government orders were issued reconstituting the Provincial Rural Development Board. The distinguishing feature of the Board as reconstituted is that apart from the ex-officio and nominated members, adequate representation has been given to the principal bodies concerned with rural economy, viz., the District Rural Development Boards, the Bombay Provincial Co-operative Bank, the Bombay Co-operative Marketing Society, District Central Co-operative Banks, District Boards of Supervising Unions and the Agricultural, Animal Husbandry and Dairy Institute, Anand.

The first meeting of the reconstituted Board was held in January 1942 at Bombay and was inaugurated by His Excellency the Governor. Its deliberations were presided over by the Adviser to the Governor.

5. Except in Bijapur and Sholapur, where rural development work is carried on by the Wilson Anti-Famine Institute and the Rural Development Association, respectively, Rural Development Boards have been formed in all districts. In the Bombay Suburban District, a separate Board was constituted in June 1941. Similarly, 2 separate Boards were constituted for the Broach and Panch Mahals Sub-Divisions in the Broach and Panch Mahals District. In almost all cases the constitution of the Boards has been overhauled and they now normally consist of the ex-officio members, representing various departments in the district, and other members either nominated by Government or elected by various interests such as cottage industries, land holders and different associations working in the district. Under the revised constitution, the Collector of the district is Chairman of the Board and also Chairman of the Executive Committee constituted for carrying out the various items of rural development work decided upon by the Board.

### (3) TALUKA AND VILLAGE ORGANIZATIONS.

6. In several districts, Taluka or Petha Improvement Committees have been formed with the Mamlatdars or Mahal-Taluka Organisations. karis as their Chairmen. The Taluka Improvement Committees formed in the Broach and Panch Mahals, Dharwar and Kanara, are reported to be doing particularly good work. In Kanara, some of the Taluka Village Improvement Associations were reorganized for giving adequate representation to rural areas. In Sholapur, there are 7 Taluka Village Improvement Committees (one for each taluka) and 7 Taluka Development Associations. The work of these taluka organizations has been divided and the agricultural side has been entrusted to the Taluka Development Associations, while other items of rural development have been entrusted to the village Improvement Committees. These bodies work in co-operation with each other. In Poona, there are Taluka Village Improvement Committees in each of the Talukas and Pethas, but they have not been functioning regularly and satisfactorily. Only the Village Improvement Committee formed for Poona City and Haveli Taluka has been doing satisfactory work.

7. In addition to Taluka Improvement Committees, there also exist several Village Improvement Committees for carrying out rural development work in the villages concerned. In Kanara there are 143 Village Improvement Associations, some of which are reported to be doing good work. In this district, the Secretaries of 34 Village Panchayats were asked to collect statistics for their Panchayat areas with a view to making these villages serve as models for intensive rural development work. In Kaira, there are 80 village Uplift Committees, while in Ratnagiri, there are 25 Village Improvement Committees which carry out different items of rural development work.

## (4) FINANCE.

8. The appended statement will show the expenditure incurred on rural development during the financial year 1941-42, under the various heads shown in the statement (*vide* Statement No. 1).

## II. CO-ORDINATIONS BETWEEN VARIOUS DEPARTMENTS.

9. With a view to co-ordinating the activities of various departments working in the districts, co-ordination meetings were held in all districts. All such meetings are reported to have been well attended and cordial co-operation was offered by the officers concerned. In Satara one such meeting was presided over by the Adviser to the Governor at which 40 subjects were discussed. The Adviser also attended the co-ordination meetings held at Thana and Bombay Suburban District.

In addition to the quarterly co-ordination meetings of officers of all departments which have any connection with village life, Government issued orders in September 1941 that bi-monthly meetings of district officers directly connected with rural development should be held. In view of these arrangements made for bi-monthly meetings, Government later ordered that it was not necessary to hold quarterly co-ordination meetings and that only two such meetings during the year would suffice.

These bi-monthly meetings were accordingly held in all districts at which the progress of rural development work done during the previous two months was reported, and the programmes of work to be done during the subsequent two months were approved.

In some districts, the Prant Officers also called smaller co-ordination meetings at suitable places in their jurisdiction which were attended by the various local officers and which helped, to a considerable extent, in carrying out satisfactorily the work of rural development.

## III. AGRICULTURE.

### (1) LAND DEVELOPMENT.

10. The question of preventing soil erosion by the construction of suitable bunds on scientific lines has been receiving increasing attention from the Agricultural Department and the Rural Development Boards. The urgency of the problem varies from district to district and so there is a marked disparity in the expenditure and attention devoted to this question in various districts, but the importance of the question is generally recognized and the District Rural Development Boards in most districts in the Deccan, in the Bijapur district, and in the Panch.

Mahals Sub-Division have made substantial efforts to deal with the problem. The total length of bunds constructed was 13.96 lakhs feet while the total area of lands protected was 25,172 acres as against 15,045 acres the previous year.

11. In Nasik, propaganda for bunding was carried on by the two bunding kamgars appointed for the purpose and bunds were constructed which have protected an area of 3,774 acres. Much headway was made in West Khandesh in bunding operations and bunds of the length of 2,75,127 feet were constructed, protecting an area of 5,094 acres. In Poona, with the help of a special bunding staff, lands of about 50 applicants were surveyed and plans and estimates prepared for the bunding of their lands, while in Satara, bunding was done over an area of 1,297 acres with the help of a bunding sub-overseer appointed by the Board.

In East Khandesh, bunding kamgars were specially appointed and bunds were constructed at 24 places which benefited an area of 6,433 acres. The total length of bunds constructed was over 5 lakhs feet. In Ahmednagar, agriculturists were encouraged to bund their lands either by their own labour or by taking tagai loans. The total area thus banded during the year was 4,043 acres.

In Broach and Panch Mahals, protective bunding became an important question for the hilly tract in the eastern part of the Panch Mahals Sub-Division. A bunding scheme was drawn up for 5 villages and the area which was protected by the scheme came to nearly 887 acres.

In Bijapur also considerable bunding work has been done. The total length of bunds constructed comes to over 3.95 lakhs feet, while the approximate area protected by the bunds comes to 5,600 acres. An amount of Rs. 17,383 was paid as bunding subsidy in 49 villages. In future, such subsidies will only be given to large approved schemes under which areas in blocks of over 200 acres only will be undertaken for bunding. Many applications have been received under this revised scheme.

During the year under report, Government deputed a party of officers headed by Mr. Dalley, Conservator of Forests, to study the work of organization of the Soil Conservation Circle of the Punjab Forest Department. Mr. Dalley's report, which was submitted on the 3rd December 1941, was considered by the Provincial Rural Development Board in January 1942. Government orders on the report were issued in February 1942.

The Director of Agriculture has been instructed to proceed with soil conservation schemes or "developmental projects" in selected villages and also to train as many men as possible in bunding work.

## (2) INTRODUCTION OF :

(i) *Improved Tillage Methods.*

12. In rural areas, various improved methods of cultivation are being increasingly adopted according to the type of land and nature of crops grown. They mostly consist of wider sowing, frequent interculturing, planting sugarcane in ridges and furrows instead of in flat beds, etc. Wider planting and frequent interculturing of sugarcane were extended in Nasik and West Khandesh. In Satara, the improved methods of sowing jowar at a distance of about 2 feet was followed in Walwa and Tasgaon talukas, and cultivators who followed this method were given an encouragement grant of Rs. 5 per acre by the District Rural Development Board. Wider sowing of crops on ridges was demonstrated in Surat district through the Taluka Demonstration Centres.

(ii) *Improved Implements.*

13. The officers of the Agricultural Department, the Rural Development Staff and the kamgars of Taluka Development Associations continued propaganda and demonstrations of improved implements to show their advantages in comparison with the old indigenous agricultural implements. There is now an increased demand for improved implements like ploughs, levellers, harrows and winnowing fans, etc. Owing to the rise in the cost of these implements on account of the war, many agriculturists are not in a position to purchase them, but they are let out on hire by the Taluka Development Associations, Implements Societies, and Agricultural Requisites Societies and the departmental depots, and a very large number of cultivators have taken advantage of these facilities.

14. The use of iron ploughs is on the increase in several districts. In Nasik, the use of these implements has become common in the deshi part of the district and it is estimated that about 51,000 acres have been ploughed by ploughs hired from the departmental depots and Taluka Development Associations. In Satara, more than 3 lakhs of acres were ploughed by iron ploughs. In Ahmedabad, among the improved implements, Cooper ploughs are becoming popular and 9 such ploughs were distributed at 25 per cent. concession rates by the Rural Development Board.

15. Iron levellers, harrows, winnowing fans, sprayers, dust guns and plant-pullers are other improved implements which are being popularised in different parts of the Province. In West Khandesh, the District Rural Development Board decided to set apart Rs. 200 to provide plant-pullers to cultivators at half their normal price. The Kaira District Rural Development Board provided a grant of Rs. 235 for improved implements, which was spent through Taluka Development Associations. In Ahmedabad, the cultivators are using wider sowing drills prepared locally for cotton and wheat. Other

implements like Allan Gandhi hoes, iron levellers and Sayan harrows are obtainable on hire from various agencies and are being used by the agriculturists on a larger scale. In Broach and Panch Mahals, a number of chaff-cutters, wheat-threshers, plant-pullers, and winnowers were sold at concession rates. As a result of propaganda in Ratnagiri, the villagers purchased 25 dust guns for sulphur dusting against hoppers and mildew.

(iii) *Manure.*

16. On account of war conditions the prices of artificial manures generally ruled high and as a result groundnut cake was used as manure to an increased extent. Sann and dhaincha green manuring also received considerable impetus and more manure pits were dug and more cart loads of compost were prepared to make good the deficiency in inorganic manures.

17. In Nasik, large quantities of groundnut cake were supplied as Groundnut cake and manure by the Taluka Development Associations other cakes. for garden crops, while in East Khandesh, very intensive propaganda was carried on with much success through Taluka Development Associations, Supervising Unions and Co-operative Credit Societies for the use of groundnut cake as manure. About 2,000 tons of the cake were distributed amongst members of co-operative societies alone. In Broach and Panch Mahals, intensive propaganda was carried on for using groundnut cake for top dressing of sugarcane. In Satara, nearly 3 lakhs lbs. of oil cakes of groundnut and karanj were used for the same purpose.

In Ahmedabad, castor cake was used on a comparatively large scale for manuring paddy crop.

18. Efforts for preparing and utilising compost manure were continued. In Nasik, 800 cart loads of compots Compost manure. were prepared in Yeola and Baglan talukas by utilising leaves and refuse. Nearly 300 manure pits were got dug in several villages with a view to conserve cattle manure and also to improve the clean lines of the villages. In West Kandesb, propaganda done by the staff of the Taluka Development Associations resulted in 1,235 manure pits being dug and 564 cart loads of compost being prepared

19. The use of sann green manuring for irrigated crops is on the increase. In Ahmedabad, sann seed was sown in Sann green manure. an area of about 200 acres for purposes of green manuring. In Broach and Panch Mahals, intensive propaganda was carried on for using sann seed as green manuring.

20. In Safara and Kanara, notwithstanding a rise in the prices of Other Commercial artificial manures, cultivators made use of ammonium Fertilizers. sulphate and bonemeal to a considerable extent, the details of which are given in the relevant statement. In Belgaum,

artificial manures were used on a large scale and as will be seen from the statement, 5.77 lakhs lbs. of sulphate of ammonia, etc., and 68,000 lbs. of bonemeal were distributed to the cultivators through suitable agencies.

### (3) SEED MULTIPLICATION AND DISTRIBUTION.

21. An important activity of the Rural Development Boards relates to the arrangements which have now been made for the multiplication and distribution of the improved varieties of seeds of different crops. Prior to amalgamation of the district staffs of the Agricultural and Co-operative Departments in March 1939, the responsibility for organization, execution, and supervision of this work vested almost entirely with the Agricultural Department, though that Department was assisted in some districts by the Revenue Department and Co-operative organizations like the Taluka Development Associations. After the re-organization of the Rural Development Department in January 1941, steps were taken in all districts to put this work on a systematic and standardized basis. The Director of Agriculture accordingly prepared a model scheme for the "Organization of seed multiplication and distribution of improved crops (other than cotton) on a taluka basis", which has been adopted in various districts for the crops which are grown in those areas. Broadly speaking, the scheme consists of two parts. During the first two years or the "Primary Seed Multiplication stage", the scheme is under the direct control of the Agricultural Department, and consists of the supply of improved seeds during the first year from the Government Seed Farm to the Taluka Seed Multiplication Centres, and during the second year of supply of the multiplied seed from the Taluka Multiplication Centres to approved society or individual seed growers. The "Secondary Seed Multiplication and Distribution stage" is carried out and supervised by the Revenue and/or the Co-operative Department. This stage may extend over a further period of one or more years' multiplication of seed and will include the ultimate distribution of the improved seed to the cultivators in the villages and its general introduction throughout the talukas.

22. In accordance with this model scheme, various Rural Development Boards adopted programmes suitable to local conditions, selecting the talukas which should be taken up for multiplication and distribution work in the beginning and also the crops which should be taken up first. As the year under report was the first year in the case of most districts, the seed was generally obtained from the farms under the Agricultural Department, and made available for further multiplication. The reports received from the various districts show that except in one or two areas (e.g., Poona district and Olpad taluka in Surat district), where on account of unfavourable weather conditions, success could not be achieved, the scheme has made a very good beginning in the Province.



23. The following is a brief account of the activities under Work in the Districts. Various crops :—

*Wheat.*—In West Khandesh, wheat strain No. 168 was selected for multiplication in five talukas. In all, 5,400 lbs. of seed sufficient for 88 acres were distributed. In Ahmedabad, wheat strain No. 224 was multiplied and the resultant seed was purchased for further distribution, while in East Khandesh, wheat seed of different varieties was multiplied.

*Jowar.*—In Broach Sub-Division, Rabi Jowar No. 8 was multiplied and seed to the extent of 7,200 lbs. was obtained, while in Surat, 11,000 lbs. of Jowar B. P. 53 was supplied to 200 cultivators for multiplication. In Satara, Maldandi Jowar was multiplied in two talukas and would be sufficient for 200 acres.

*Paddy.*—In Kanara, different strains of paddy obtained from the Kunta and Mugad Farms were taken up for multiplication and the area covered by such seed during the year was 24,000 acres. Similarly, in Kolaba, the scheme of multiplication of a pure strain of paddy seed was undertaken at 11 centres. In Belgaum, the model paddy multiplication scheme was continued and over 50,000 lbs. of seed were distributed to cover an area of 993 acres.

*Gram.*—In Nasik, the District Rural Development Board adopted a seed multiplication scheme for gram in five talukas. Pure seed was given to seed growers which produced approximately 16,000 lbs. which is being purchased and stored for further multiplication.

In Dharwar, seeds of paddy, wheat and groundnut are being multiplied according to an approved plan. The seed, which is stocked at important centres, would be sufficient to cover one lakh of acres.

24. In addition to the seed multiplication and distribution work which was taken up by the District Rural Development Boards in accordance with the scheme outlined above, the work of supplying of improved seeds of other crops which were not locally available or were available only at high prices was also taken up. In Nasik, over 88,000 lbs. of seed potato were obtained from Simla and distributed to cultivators in the potato growing area which covers about 1,115 acres. In Poona also, arrangements were made to supply 12,820 maunds of Numbri potatoes, and tagavi loans were freely given for purchasing potato seed.

In Kaira, the District Rural Development Board sanctioned Rs. 1,425 for distribution of improved seed at concession rate. In Kanara, the Rural Development staff distributed 1,70,000 sets of improved sugarcane (H.M. 544 variety) which yield a higher tonnage of richer juice and also gives *gul* of superior quality. In Bijapur, two co-operative Cotton Sale Societies supplied over 20.48 lakhs lbs. of improved cotton seed.

## (4) CROP PROTECTION AGAINST :

(a) *Insect Pests.*

25. In several districts where crops were affected by insect pests, Caterpillars, Hop-pers, etc. suitable measures to prevent destruction were adopted with beneficial results.

In Thana District, sulphur dusting to control hopper attack on mango blossoms was demonstrated on 250 mango trees, with satisfactory results. In Surat, over 2,800 lbs. of sulphur dust was supplied to the cultivators for dusting mango trees against hoppers, and the Bombay Suburban District Rural Development Board sanctioned Rs. 300 for dusting of mango trees.

In the Surat District, the rice crop was severely attacked by swarming caterpillars in Chikhli Mahal and some parts of Bulsar and Bardoli Talukas. For taking suitable control measures, an agricultural officer was specially deputed and fields were dusted with sodium fluosilicate mixture with good results. A pamphlet giving the life-history of the pest and measures to be taken to control it was also published and distributed.

In Kanara, demonstration of sulphur dusting mango inflorescences against hoppers was undertaken by the Rural Development staff in a number of talukas. More than five hundred trees were dusted and it was observed that the dusted branches gave 30 to 40 per cent. more fruits, than the undusted ones. Insecticides and fungicides like lead arsenate and sulphur dust etc., were supplied to cultivators in the Patalganga valley of Kolaba District.

A grant of Rs. 240 was sanctioned by the Kaira District Rural Development Board for protection of crops against insect pests, out of which insecticides like sulphur dust, copper sulphate, and lead arsenate were supplied to the agriculturists.

26. In Daskroi Taluka of the Ahmedabad District, satisfactory results were obtained by treating paddy crop against a sucking pest with fish-oil rosin soap, while in the Bombay Suburban District the campaign of cutting affected fronds of cocoanut trees, which was started last year, was continued during the year under report. Demonstration of cutting and burning affected fronds was arranged in respect of 143 trees. Garden owners were satisfied with the demonstrations and about 1,200 other trees were similarly treated. The same method was adopted at Juhu where the pest appeared during the year. In Broach and Panch Mahals, arsenic packets and cynogas dust were supplied to the cultivators for killing rats and white ants which affected jowar and wheat crops.

(b) *Plant Diseases.*

27. Against various plant diseases, agriculturists are adopting to a great extent preventive and remedial measures which are recommended

by the officers of the Agricultural Department and have proved beneficial by experience.

28. In almost all districts where jowar crop is grown, the seed is generally treated with sulphur dust to prevent smut. A large number of sulphur packets were distributed for this purpose in Nasik, Bijapur, Ahmedabad, Surat and East Khandesh. In Satara, jowar seed was treated with sulphur dust before sowing over 54,000 acres. In Kanara, sulphur packets sufficient for 500 acres were distributed to prevent smut and the treatment is estimated to have given an increased production of 32,000 lbs.

In addition to its extensive use for prevention of smut, sulphur dust was also used to prevent tamera disease of potato and murda disease of chillies.

29. Cutting of loranthus (a parasitic plant on mango trees) received special attention in many districts. In the Bombay Suburban District, demonstration of loranthus cutting was held at Bhandup to explain to the agriculturists the harm done by loranthus and to demonstrate the correct method of eradicating it. In Ratnagiri, a loranthus removal campaign was undertaken on an intensive scale, as a result of which loranthus was removed from about 60,000 trees, while in Kolaba, "Loranthus Removal Day" was observed in 799 villages and 6,658 mango trees were freed from the parasite. In Broach and Panch Mahals also, "Loranthus Removal Day" was observed in some villages.

30. Bordeaux mixture, which is an effective remedy against diseases like Koleroga and betelvine wilt, was used on a large scale in coastal districts. In Kanara, where the koleroga was not so severe during the year, the betelnut trees over an area of 785 acres as against 1,785 acres of the previous year were sprayed with bordeaux mixture. In Thana, the betelvine wilt control scheme at Bassein was continued during the year. Eleven plots were given repeated treatment of bordeaux mixture against the betelvine wilt. Few cultivators could, however, take advantage of this scheme owing to the abnormal rise in the prices of bordeaux mixture. An intensive campaign for spraying betelnut trees affected by Koleroga disease, with bordeaux mixture was undertaken in Vengurla Peta, in Ratnagiri district.

(c) *Wild Animals.*

31. With a view to prevent damage to crops by the ravages of wild animals, gun clubs are being organized on a larger scale in districts which are particularly exposed to such damage. In all there are 74 gun clubs and these were responsible for the destruction of 3,442 wild animals during the year. Co-operative Crop Protection Societies are also playing an important role and more crop protection societies, which aim at

dealing with the problem either by the construction of fences or employment of watchmen, are being organized.

In Satara, 17 gun clubs were instrumental in killing 321 pigs and in protecting an area of over 6,750 acres. These clubs got a grant of Rs. 200 from the District Rural Development Board for the purchase of ammunition. The crop protection societies also saved crops from stray cattle and thieves in an area covering about 42,000 acres. In East Khandesh, 462 wild pigs and 243 blue bulls were killed through the efforts of 15 gun clubs which were given a grant of Rs. 1,500 by the East Khandesh District Rural Development Board for the purchase of weapons and ammunition. The damage to crops is said to have been reduced by about 25 per cent. in this district.

In Kaira, Government has appointed a Special Shikar Officer who has organised 11 gun clubs which were mainly responsible for killing 1,587 blue bulls. The District Rural Development Board sanctioned a grant of Rs. 1,500 roughly on the basis of Re. 1 per kill.

In Dharwar, there are 14 gun clubs which have between them 130 guns and which killed 503 wild pigs during the year. This helped to protect crops in a total area of 40,000 acres besides enabling an area of 2,000 acres to be newly brought under cultivation. Similar activities are reported from Kolaba, Kanara and Belgaum.

#### (5) HORTICULTURAL DEVELOPMENT.

32. The cultivation of fruits and vegetables is a profitable source of income to the agriculturists, and the District Rural Development Boards took vigorous steps to develop horticultural activities. The main activity under this head was in the direction of supply of reliable plants, seeds, grafts, etc., to the agriculturists.

33. In several districts, viz., Nasik, West Khandesh, Satara, Ahmednagar, Kaira, Surat, Dharwar and Kanara, various types of plants such as mango grafts, mosambis, santra, grape-vines and other fruit plants according to the needs of each district were supplied by the District Rural Development Boards to selected agriculturists at cost price or concession rates. In Ahmednagar, the transport charges were also borne by the District Rural Development Board. In Bijapur, under the scheme introduced by the Anti-Famine Institute, 795 mango grafts were distributed free of cost to 19 approved cultivators.

In Sholapur, two nurseries were opened from which 2,300 plants were distributed to the villagers free of charge, while in Kanara also it was decided to open a nursery at Haliyal at which 2,000 grafts are expected to be produced annually. In East Khandesh, the District Rural Development Board spent Rs. 250 on an effort to spread the strain of "Mehtarun-Bor" which is a popular variety in the district.

The work done in Ratnagiri calls for special mention. The Ratnagiri District Rural Development Board undertook a scheme of side grafting of mango trees and sanctioned Rs. 2,000 for the purpose. According to this scheme, the Board agreed to pay 2 annas as subsidy to the Taluka Development Association on condition that the Taluka Development Association and the owner of the tree would bear the remaining cost of grafting (viz., 4 annas), in equal proportion. This resulted in 2,100 country mango trees being successfully grafted with the Alphonso variety. The Board also spent Rs. 300 on a scheme to give an impetus to pineapple cultivation. According to this scheme, persons who cultivated pineapples on an area of not less than five gunthas were given suckers on condition of returning the same number after two years for further distribution. Nearly 5,000 suckers have been distributed to the village under this arrangement. To develop cashew tree plantation, seeds to the extent of 2,000 lbs. were distributed to promising cultivators at half the market price through the agency of Taluka Development Associations.

34. Tree Planting Days were observed in several districts. In Ahmednagar, they were observed in three talukas of the district, while in Broach and Panch Mahals, in response to the appeal issued by the Collector for celebrating 27th July 1941 as "Tree Planting Day", more than 1,57,000 trees are said to have been planted in various talukas of the district. "Tree Planting Days" were also observed in West Khandesh, Nasik and Satara and a number of trees were planted at various places.

#### (6) ANIMAL HUSBANDRY.

35. The question of the quality of cattle is very important in a country like India where agricultural operations are not carried out with the assistance of power-driven tractors and other machinery, and the reports received from the districts show that the Boards are fully alive to the need of improving the quality of the cattle. During the year many Boards made arrangements for the supply of premium bulls and premium cows, and at many places cattle shows were organized at which prizes were given to the owners of good cattle, and propaganda was carried on to impress on the agriculturists the necessity of maintaining good breeds of cattle.

36. In Ahmedabad, 8 premium bulls were distributed among professional cattle breeders with a subsidy of Rs. 25 per bull. The East Khandesh District Rural Development Board distributed 20 cows in 8 villages which had already either premium or gift bulls with them. In Dharwar,

10 pedigree bulls, 9 cows and 5 heifers have been supplied by the Dharwar District Rural Development Board and are kept in the villages where people are keen upon livestock improvement. In several other districts, viz., West Khandesh, Poona, Satara, Bijapur and Belgaum, the District Rural Development Boards made substantial contributions for the purchase of breeding bulls and cows which were supplied to selected villages at half the cost or else at concession rates.

37. In addition to the financial assistance given by the Boards for the purchase of animals of good quality, they have been assisting the organizations set up for the improvement of animal husbandry. In East Khandesh, the District Rural Development Board made grants to the Gilligan and Gangapuri Cattle Breeding Farms. In Surat, a scheme has been drawn up by the Rural Development Board according to which 7 "Cattle Breeding Centres" were started, and 24 bulls and 55 cows were supplied to them. It is expected that later these Centres will be able to supply stud bulls needed in the district. In Thana, the Cattle Breeding Society at Maroli is reported to be doing good work.

In Niphad taluka of the Nasik District, Rs. 5,000 were collected for cattle improvement and it was decided to organize better farming societies at suitable centres with cattle improvement as their special object and to provide breeding bulls out of the amount collected. A beginning was made at Vinchur where the scheme was inaugurated in October 1941 by the Adviser to the Governor.

The Cattle Breeding Farm at Yedhalli in Bijapur was closed down under Government orders and in its stead a "Cattle Breeding and Mixed Farming Project" is being introduced from the current year.

38. With a view to give an impetus to improvement of livestock, cattle rallies were held in some districts during the year. In Kaira, two cattle rallies were organized, which were presided over by the Collector and prizes were given to the cultivators whose cattle were adjudged to be the best. In Jalgaon, a programme of cattle improvement was observed on Pola Day. Leaflets were distributed and talks given on how to take care of cattle.

Amongst measures taken to improve the quality of cattle a "Cattle Tick Eradication Scheme," financed by the District Rural Development Board, Ahmedabad, under which 5,000 cattle were treated for eradication of ticks in Sanand Mahal, deserves special mention.

39. Efforts were also continued to encourage the agriculturists to take up poultry farming as a subsidiary occupation. In West Khandesh, with the help of a Poultry Kamgar appointed specially for the purpose by the District Rural

Development Board, eggs and chickens of the white Leghorn and Rhode Island Red varieties were supplied to the cultivators. In Thana, white Leghorn hens were supplied to the villagers, while in Sholapur two poultry farms were started and pure breed birds and eggs were supplied to the cultivators from these farms at concession rates. Four enterprising cultivators in this district are reported to have started their own poultry farms on the same lines. In Kaira, a poultry farm is conducted by the District Rural Development Board at Anand, which made available eggs of improved breeds to the poultry owner of the district. In Kanara and Ratnagiri, cocks and eggs of improved varieties were supplied at concession rates to the villagers to encourage poultry farming.

#### (7) GRASS LANDS AND FODDER IMPROVEMENT.

40. The work under this head consists mainly of efforts to introduce new varieties of grass and fodder, and the attempts made to train agriculturists in proper methods of conservation of grass and the right lines of grazing.

41. In Satara, the District Rural Development Board spent Rs. 100 New Varieties of in purchasing lucerne seed and selling it to the Grass and Fodder. cultivators at half the cost. In Halol and Godhra, lucerne seed was supplied free. Napier grass also attracted considerable attention. Experiments in growing Napier grass have been undertaken at the Institute of Agriculture, Anand, while in Kanara also experiments are being conducted to grow Napier grass in specially prepared plots. Seed for this grass has been obtained from the Government Farm at Dharwar and the work which is being conducted under the supervision of the Divisional Forest Officer, E. D., is reported to be showing good results.

42. In Poona, three silos were prepared at three villages, where Construction of 69,000 lbs. of grass were stored. The pits were Silos. opened in April 1942 and about 100 cattle were fed at each of these centres, and it was noticed that they ate the silage with evident relish. Similar activities are reported from Dharwar and Kanara where two silos were constructed in each district for storing grass.

43. In Dharwar, the Grazing and Fodder Committee under the Controlled Grazing. chairmanship of the Collector recommended that restricted grazing was beneficial and that to bring it into effect, a small fee of annas two per head of cattle should be levied and the income utilized on the improvement of grazing areas. In Poona, a Rotational Grazing Scheme was started at Donda near Khed under the guidance of the Forest Department, but could not be carried out to the desired extent owing to the sub-normal rains last year.

#### IV. CO-OPERATION AND MARKETING.

44. The most numerous organised bodies having contacts with the economic life of the agriculturists are agricultural co-operative societies.

It is true that a very large number of these societies are credit societies, which cannot be said to have much direct connection with rural development activities. Of late, however, efforts are being made to broaden the basis of these societies and consequently they have been interesting themselves in, and undertaking different kinds of rural development activities to a larger extent. The number of agricultural non-credit societies which are concerned with agricultural propaganda work and with specific items of rural development such as marketing of agricultural produce, supply of improved seed, manure and improved implements, cattle breeding, fencing etc. increased from 331 to 352 during the year.

(1) TALUKA DEVELOPMENT ASSOCIATIONS AND BETTER FARMING SOCIETIES.

45. Taluka Development Associations, which increased in number by 4, from 103 to 107, during the year under report, continued to do satisfactory work. They carried on extensive propaganda in regard to agricultural improvements and rural development in general through demonstrations, exhibitions etc., and brought to the notice of the agriculturists the improved implements and methods of cultivation. They also supplied artificial or concentrated manures, insecticides, fruit plants and grafts and improved seeds of different varieties. They proved a very useful agency for carrying to the villages, the programme prepared by the District Rural Development Boards. The work done by these Associations has already been described under suitable heads in the previous chapter. Control of these Associations has now been transferred to Collectors.

46. Better Farming Societies have almost the same objects as Better Farming Taluka Development Associations, with this difference that they work in smaller areas than the Taluka Development Associations and concentrate on one or more specified measures of agricultural improvement. They also provide finance within prescribed limits for the purchase of improved seed etc. The number of such societies increased during the year from 33 to 38. These societies are comparatively new organisations and, although it cannot be said that they have become an outstanding success, some of them have made a good start. The Better Farming Society at Dahitne in the Sholapur District got about 200 cart loads of compost prepared by its members. The members of the Bhoj Co-operative Better Farming Society in the Belgaum District kept 41 cows and 2 premium bulls. The society received financial assistance from the District Rural Development Board. Government has also granted a kuran of 25 acres to this Society. The two Better Farming Societies in the Kanara District supplied onions and paddy seeds to its members worth Rs. 766 and also supplied their domestic requirements to the value of Rs. 3,121. The Satral Co-operative Better Farming Society in the Ahmednagar District also worked very successfully and supplied manure and improved implements to its members and encouraged them to follow improved methods of agriculture.



## (2) SALE SOCIETIES, AGRICULTURAL REQUISITES SOCIETIES AND IMPLEMENTS SOCIETIES.

47. The number of Co-operative Sale Societies increased from 89 to 99. **Bombay Co-operative Marketing Society.** The organisation of the Bombay Co-operative Marketing Society, during the year is another milestone in the progress of the co-operative sale movement in this Province. The Society collected a share capital in the neighbourhood of Rs. 50,000 and is managed by a strong Board of directors nominated by Government. Subsidies up to Rs. 9,000 for the first year and Rs. 8,000 for the second year have been promised by Government if there is a deficit in the cost of management. The Society has made a promising beginning and the volume of the sale and supply work actually done by it indicates that the estimate of its first year's business made at the time of the organisation of the Society would be exceeded substantially.

The Sale Societies in the Surat and Dharwar districts alone sold cotton and lint to the approximate value of Rs. 24,50,523 **Cotton Sale Societies.** and Rs. 24,08,794 respectively. The Surat Cotton Sale Societies continued to supply improved seed to the members, to pool their produce and to get it ginned and, if necessary, also pressed before sale. The sale proceeds are distributed amongst members *pro rata*. The system of pooling, ginning and pressing also exists in the northern part of Gujarat, where the Thasra Co-operative Cotton Sale Society sold lint to the value of Rs. 2.19 lakhs. The system was also extended to the East Khandesh and West Khandesh districts during the year where the societies at Yawal and at Shahada made a good beginning. A scheme for the organization of about 24 Cotton Sale Societies in the East Khandesh District on the Surat model was prepared by the Director of Agriculture in consultation with the Registrar of Co-operative Societies, the Cotton Superintendent, and other interests involved. It was sanctioned by Government after the close of the year, but 3 Sale Societies had already been registered before. The scheme aims at the spread of Jarilla cotton and visualizes the pooling of the produce of member agriculturists after ginning and its sale under AGMARK labels under the general guidance of a sales manager who would put the societies in direct touch with consumers or wholesale dealers. Amongst sale societies other than those for cotton, the Nira Canal Purchase and Sale Union and the Kopergaon Purchase and Sale Society, which have been working in the Nira and Godavari canal tracts respectively, did satisfactory work and their business also increased considerably. They supplied oil cake to, and sold gul and other produce of their members and the members of societies affiliated to them, and other agriculturists.

48. Agricultural Requisites and Implements Societies are also doing good work. The area in which they have developed and functioned most successfully, are the two districts of Ahmednagar and Sholapur. They have been stocking large numbers of improved implements, particularly iron ploughs, and rendering useful service to the agriculturists. The most outstanding examples of success amongst these societies are societies

at Shevgaon and Pathardi which stocked about 400 and 300 iron ploughs respectively.

(3) MULTI-PURPOSE SOCIETIES, CREDIT SOCIETIES AND  
CENTRAL BANKS.

49. Multi-purpose Societies also are comparatively recent organisations and have been feeling their way gradually. Their number was already 65 at the beginning of the year, but certain difficulties were being experienced in the working of some of these societies. It was, therefore, considered advisable not to increase the number any further, but to consolidate the position of the existing societies. In the aggregate, they did considerable supply and sale work. The best Multi-purpose Society is the Aldar Multi-purpose Society in the Broach District. Its sale business exceeded Rs. 2 lakhs and it supplied domestic and other requirements to the value of Rs. 10,000.

Steps, were however, being taken to see that the existing credit societies which are well-managed and financially strong undertook activities other than credit which would enable them to cater to the different needs of their members. In accordance with this policy, in the district of East Khandesh alone 11 credit societies amended their bye-laws so as to permit them to undertake the work of agricultural supply and sale. To mention only one of these societies, the Mhasawad Agricultural Co-operative Thrift and Credit Society supplied 50 tons of oil cake to its members at Rs. 18 per ton, and stocked 500 bags of pure Jarilla cotton seed and supplied it to its members and also to neighbouring societies. Co-operative Societies also devoted most of their charity funds to the furtherance of rural development activities. To take the instance of the East Khandesh District alone, as many as 25 societies utilised money from charity funds for different rural development activities : 1 for construction of drains, 3 for purchase of stud bulls, 5 for aiding the construction or extension of school buildings, 1 for construction of a library building, 2 to help the establishment of the village libraries, 3 to finance the construction of approach roads, 4 to improve the arrangements for supply of drinking water for cattle, 1 for construction of latrines for women, 2 for purchase of medicine for free supply to the villagers and 3 for financial assistance to educational institutions. The following requisites were distributed amongst members of co-operative societies in the East Khandesh District :—

16,000	sulphur dust packets of 2 ounces each.
2,000	tons of groundnut cake manure of which 895 tons were supplied on credit.
5,486	bags of Jarilla cotton seed.
924	pallas of groundnut seed.
230	bags of sann seed.
10,000	lbs. of wheat seed.

It is reported that in Dharwar District also some credit societies undertook and helped rural development activities, more or less on the same lines. In Sholapur District, the Tadval Agricultural Co-operative Credit Society has opened a dispensary from its own funds. In the same district the Co-operative Credit Societies in Madha Taluka contributed Rs. 3,118 for school buildings in rural areas whereas the Nimbgaon and Dahitane societies have donated for gymnasium and libraries.

Even some of the central banks have been doing valuable work in this direction. The East Khandesh District Central Co-operative Bank has agreed to supply sulphur dust packets free to all members of co-operative societies. It has also stocked 23,731 bags of pure Jarilla pedigree seed. The Central Bank has been permitted to invest Rs. 2½ lakhs in the purchase of oil cake manure. Over 1,000 tons of cake manure has already been purchased and indents for the supply of more cakes were being received and collected. The Bombay Provincial Bank and some other central banks also have been doing some work of this kind.

50. Crop Protection Societies, the number of which rose from 40 to 43, did valuable work in protecting crops against wild other Societies. or stray animals, thieves, incendiarism etc. Development of Crop Protection Societies is most prominent in the Dharwar, East Khandesh and Satara Districts. Some societies aim at developing village industries. The Honawar Coir Weaving and Spinning Society in the Kanara District, in addition to supplying constant work to producers who belong to a backward class, sold coir articles worth Rs. 1,832. In the matter of education of members of societies, the Hulkoti Education Society in the Dharwar District ran two day-schools for boys, one school for girls and four night-schools. About 120 adults used to receive education in the night-schools conducted by the Society.

#### (4) GENERAL MARKETING WORK.

51. The Chief Marketing Officer and the staff under him continued to attend to the work in regard to regulated markets, grading and standardization and also, as far as possible, to render help to co-operative purchase and sale, and multi-purpose societies in the disposal of their produce and the purchase of their requirements. During the latter part of the year, the Marketing staff was mainly busy with the collection of weekly statistics required by the Controller of Prices and the Director of Civil Supplies with regard to important markets all over the Province. The Chief Marketing Officer and some of the staff also assisted in the organization of the Bombay Co-operative Marketing Society, about which some details have already been mentioned.

52. *Regulated Markets.*—In the West Khandesh District, there are two cotton markets at Dhulia and Dondaicha and proposals for starting three more regulated cotton markets are under consideration. In the Satara District, a detailed survey of the Karad and Umbraj markets was made in order to regulate the trade in groundnut, and proposals to apply the Agricultural Produce Markets Act to these markets have been submitted to Government. Similarly, two proposals have been submitted by the Marketing Inspector, Nagar, for establishing regulated markets at Wambori and Kopergaon. In the Ahmedabad District, it is proposed to organise regulated markets for cotton at three centres. The necessary proposals have been prepared and are now under consideration of Government. Information regarding the methods of marketing of betelnut, pepper, cardamom and paddy has been collected by the Marketing Inspector for Kanara for drafting proposals for application of the Agricultural Produce Markets Act to the Sirsi Market.

53. *Grading and Standardization.*—Grading and standardization have been making steady, though slow, progress. Efforts in regard to grading were mostly concentrated on cotton, oranges, mosambis, mangoes and eggs.

*Cotton.*—In Surat, the Cotton Superintendent, with the help of the Marketing Inspector, carried out the work of grading 1027 A. L. F. cotton according to the AGMARK specification. The graded cotton fetched a premium of about Rs. 25 per khandi. More than 4,600 bales of cotton were Agmarked and sold during the season.

*Oranges and mosambis.*—The grading of oranges and mosambis was done mostly in the districts of Poona, Ahmednagar, East Khandesh and West Khandesh. In Poona, a grader with 18 licensed packers assisted the Marketing Inspector. The District Rural Development Board sanctioned a grant of Rs. 400 for mosambi grading. More than 10,76,000 fruits were graded in the district. In Ahmednagar, the Marketing Inspector arranged for the grading of 4,51,000 mosambis with the help of licensed packers. In the East Khandesh District, the work of grading was undertaken by three co-operative fruit sale societies. The Rural Development Board of the district sanctioned a grant of Rs. 620 to popularize fruit grading and 2,91,000 oranges and mosambis were graded under the supervision of the Marketing Inspector during the year. The margin of profit is reported to have ranged from 5 to 25 per cent. of the sale proceeds. In the West Khandesh District, Mr. Bhuta Nathu Patil of Gujar Jamboli has been authorised by the Agricultural Marketing Adviser, Delhi, to undertake fruit grading. About 50,000 oranges and 5,000 mosambis were graded by him.

*Mangoes.*—The work of grading mangoes was concentrated in Surat and Ratnagiri Districts. The Surat District Rural Development Board helped the grading of alphonso mangoes in Bulsar Taluka and Pardi Mahal. Over 1,27,000 fruits were graded and Agmarked during the season. The graded fruits are reported to have fetched better prices. Four co-operative mango sale societies in the Ratnagiri District were

given the services of graders by the Rural Development Board of the district. 1,87,000 mangoes were graded and packed in 2,360 packages. The graded fruit fetched good prices in Bombay. Moreover, 34 persons were granted certificates of authority for grading mangoes under the AGMARK labels.

*Eggs.*—The grading of eggs was undertaken mostly in the Ahmedabad, East Khandesh and Poona Districts. In Ahmedabad, as a result of the efforts made to popularise the use of AGMARK eggs, one merchant has undertaken the work of grading. He sells them to petty merchants. It is estimated that about 400 graded eggs are sold daily in Ahmedabad. In the East Khandesh District, egg grading is organised through the Taluka Development Association, Jalgaon. Two kamgars were appointed for the purpose who collected and graded about 8,560 eggs from different villages. In Poona, the Rural Development Board sanctioned Rs. 400 for egg grading.

54. *Price Bulletin.*—The practice of issuing a weekly bulletin of the prices of agricultural commodities prevailing in Bombay on Thursdays was continued during the year. Copies of these bulletins are supplied to all Commissioners, Collectors, Marketing Inspectors and to some of the important co-operative societies and agriculturist producers.

## V. GRAIN DEPOTS.

55. Encouraged by the example of Thana District, the work of organizing new grain depots in other districts, particularly in the tracts inhabited by backward classes, was pushed on during the year under report. Grains are stocked at these depots and are advanced to needy cultivators for seed and food purposes and are recovered from them at harvest with interest ranging from 12½ per cent. to 25 per cent. The number of such depots in the Province has increased from 189 to 356 during the year. They distributed grain to the value of Rs. 1,05,000. Fresh loans to the extent of Rs. 19,000 were advanced by Government to the depots. The work done by the various districts in this connection is as under :—

In Nasik, through the agency of seven central depots and 87 sub-depots, grain to the value of Rs. 10,000 was distributed to 1,724 persons. The rate of interest charged to borrowers was 16 2/3 per cent. In West Khandesh, the number of grain depots has increased from 16 to 27 and they are reported to be particularly popular with the Bhils, Pawras and Mavchis residing in backward tracts of the district. These depots received Rs. 15,806 as Government loan and grain worth Rs. 14,209

was distributed amongst 1,629 villagers. The two grain depots already working in Poona have distributed grain to the value of Rs. 8,700 to 1,677 agriculturists. Government sanctioned Rs. 9,000 as interest-free loan for 3 years for the purchase of grain for opening grain depots in Akola Taluka of the Ahmednagar District, with the help of which four grain depots were opened. The existing grain depots have advanced grain to the value of Rs. 3,272 to 3,205 members.

The two depots in Ahmedabad were sanctioned a loan of Rs. 500 each and have distributed grain to the value of Rs. 836. A grant of Rs. 10,300 was placed at the disposal of the Collector for opening grain depots in Panch Mahals of the Broach and Panch Mahals District. These funds enabled the Collector to open 32 grain depots and the District Rural Development Board also made funds available for the opening of four more grain depots. Grain was advanced to cultivators from these depots and was made repayable with an additional 25 per cent. by way of interest. Seven grain depots in Surat distributed grains to the value of Rs. 870. Owing to the failure of the rice crop, the recovery of grain from the borrowers had to be postponed, while the interest had to be completely remitted. In Thana, to the already existing number of grain depots started with the assistance of Rs. 25,000 sanctioned by Government in 1939, new additions have been made during the year with the help of a further grant of Rs. 5,000 sanctioned by Government. A sum of Rs. 3,800 was also specially allotted out of the Collector's discretionary grant for starting more grain depots in Umbergaon and Palghar Talukas where they were badly needed.

In Kanara, 10 grain depots continued working with a total capital of Rs. 4,455. These depots have distributed grain to the value of Rs. 3,547 and their working was on the whole smooth and satisfactory. Through the agency of grain depots in Kolaba, 556 khandis of paddy were loaned out carrying interest at the rate of 25 per cent. to about 12,500 borrowers and about 490 khandis have been recovered from them. In Ratnagiri, with the help of a grant of Rs. 20,000, more grain depots were opened. In all these grain depots nagli and paddy for food as well as for seed purposes are stocked and advanced to cultivators at *savai* rates. The recovery work is on the whole satisfactory, though in a few cases recovery had to be postponed.

## VI. RURAL INDUSTRIES.

56. The work under this head consists of help given to the cottage industries like weaving, bee keeping, coir industry, tanning and poultry keeping.

57. To assist the handloom weavers, Co-operative Industrial Associations have been organized at various centres where the number of weavers is large. These Associations teach their members new designs and more advanced methods of weaving and dyeing, and also make arrangements for the

supply of raw materials and the disposal of the finished goods. In the beginning of the year, the Associations, along with other weavers, experienced difficulties in obtaining proper qualities of yarn at reasonable rates, but these difficulties diminished later and, on account of military orders, most of these Associations have had a prosperous year. The Sholapur District Co-operative Industrial Association has secured an order worth about Rs. 5 lakhs for the supply of textiles to the Supply Department of the Government of India, while the Ahmednagar District Co-operative Industrial Association has supplied 29,300 army blankets and cotton goods valued at Rs. 2,20,000. The Khandesh District Industrial Co-operative Association, which has been recently registered, has made a good beginning. It was in a position to supply raw material to the local weavers to the extent of Rs. 11,000 and arranged for the sale of their goods to the extent of Rs. 25,200.

To teach weavers and other village artizans improved methods of work, the Industries Department arranged demonstrations and training classes at a number of centres in the Province. They served a very useful purpose, and in some cases the District Rural Development Boards facilitated their task by the grant of financial assistance to the students attending these classes. In Satara, Mr. Bhaurao P. Patil has undertaken the starting of a weaving class and the District Rural Development Board paid Rs. 642 for purchasing equipment for this weaving class.

58. During the year, special attention was paid in several districts to the development of the tanning industry. Three Tanning. scholarships of Rs. 20 per month each for 9½ months were awarded by the District Rural Development Board, Ahmedabad, for students attending the artizan course at the Tanning Institute, Bandra. It also made a grant of Rs. 450 for construction of a tanning shed and 6 bag-tan pits at Dholka, the remaining cost being borne by the chamars themselves. In Dharwar District, the tanners at Haveri were helped with a tanning shed. The East Khandesh District Rural Development Board also made grants for developing tanning industry.

59. The coir manufacture industry, which has been organized on a co-operative basis at Honawar in the Kanara Coir Industry. District, deserves special mention. The members of the society are producing various kinds of coir articles such as brushes, mattings, door mattings, etc. A Sales Depot has been opened at Karwar for selling products of cottage industries. It supplied 50,000 square feet of bamboo matting worth Rs. 1,000 to the Public Works Department and is satisfactorily fulfilling the need of a sale agency for small handicrafts, which usually suffer for want of such an agency. In Ratnagiri, coir workers at Malwan have organized a co-operative coir society to which a grant of Rs. 200 was given from the rural development funds for initial equipment. In the Panch Mahals Sub-Division of the Broach and Panch Mahals District, rope making industry is encouraged in two villages and a grant of Rs. 100 was made out of the Collector's

discretionary grant for the purchase of sann for rope making. The Dharwar District Rural Development Board deputed one person for training in coir industry at Honawar for popularizing the industry in Hangal taluka.

60. In Kanara, the bee-keeping class established at Honawar was transferred from the Department of Industries to the Agricultural Department. A special staff has been appointed to run this class in different centres of the district and is making good progress.

61. The East Khandesh District Rural Development Board made grants for developing poultry, paper making, *zorya* making and basket making industries. It also purchased a cream separator on the recommendation of the Livestock Expert which will be demonstrated in the villages in ghee producing tracts. The Dharwar District Rural Development Board helped in the supply of raw materials and appliances and awarded scholarships to students undertaking to learn rural industries. Two students from Ranebennur were sent to the Sheep-Breeding Farm, Poona, for learning sheep rearing and wool weaving. Two candidates from the Panch Mahals Sub-Division of the Broach and Panch Mahals District were awarded scholarships and were sent for training in poultry.

## VII. COMMUNICATIONS.

62. The need for providing approach roads is very urgent in rural areas—particularly in coastal Districts and hilly tracts—and the Collectors and the Rural Development Boards tried to meet the demand by making grants and also carrying on propaganda amongst the villagers to improve their communications. In a number of Districts in the Central Division, a "Better Village Communications Week" was observed, when special attention was given to the construction and repair of approach roads.

In Nasik, with a grant of Rs. 2,175 repairs to small sections of roads at 40 villages were made during the "Better Village Communications Week", which was observed from the 8th to the 15th March 1942. In East Khandesh, 3 approach roads in each taluka were constructed during the "Better Village Communications Week". The villagers were granted permission to remove stones, murum, sand, earth, etc., free of charge from Government quarries or waste lands. This induced the villagers in several villages which were not otherwise in the programme to improve their approach roads. In Ahmednagar, the District Rural Development Board gave grants for approach roads to the extent of Rs. 1,500 in 12 villages on condition that the villagers contributed 1/3rd of the estimated cost either in cash or by way of labour. The Collector also allotted Rs. 2,531 for repairing roads and drains in 43 villages. During the



“Better Village Communications Week” observed in the district, 23 approach roads were constructed for which the villagers contributed manual labour. In the Sholapur district, the enterprising villagers of Shelgaon in Barsi taluka have prepared a village road with water drainage constructed with cement and concrete from their own resources.

In three villages in Broach and Panch Mahals, streets were paved with stones with the help of a grant of Rs. 5,290 from the District Rural Development Board. The grants were sanctioned after the villagers agreed to contribute a fair share of the cost. In Surat, village roads approximately 13 miles in length in 15 different villages were got repaired or metalled with the help of the Collector’s discretionary grant at a cost of Rs. 7,642, the people’s contribution in cash or labour amounting to Rs. 3,913.

In Dharwar, the rural public was afforded help through grants on a contributory basis, in the construction of approach roads, village roads, culverts and drainage, etc. The amount of grant given for these purposes was Rs. 1,688. In October 1941, different villages in Kanara observed a “Village Road Day”, when village roads exceeding 250 miles in length are reported to have been repaired by voluntary free labour. An appeal was made to every household to give the free labour of one male adult for 3 days, or the money value thereof. The Prant Officers, Mamlatdars, Rural Development Inspectors and Assistant Rural Development Inspectors personally supervised the work, and other officers of the departments helped in making the “Village Road Day” a success. In Ratnagiri, the District Rural Development Board sanctioned a sum of Rs. 20,000 for the construction and repair of village roads of about 36 miles in length. In Belgaum, Rs. 2,607 were spent on the construction and repairs of roads and drains. Owing to the efforts made by Mr. D. R. Thakur roads were improved and drains dug by the villagers of about 80 villages in Chandgad Mahal. In Bijapur, a sum of Rs. 3,228 was made available out of the Collector’s discretionary grant to 17 villages which paid their share of the contribution and had better roads constructed for their use. Similarly grants for construction and repairs of village roads and approach roads were made in Poona, Satara, Sholapur, Kolaba, Kaira and Ahmedabad either by the District Rural Development Boards or out of the Collector’s discretionary grants.

### VIII. IRRIGATION AND WATER SUPPLY.

63. The District Rural Development Boards have in the past been trying to help in the provision of irrigation and water supply facilities by making minor grants out of the funds at their disposal, but now their responsibilities and powers in this sphere have been increased very considerably by Government orders issued early in 1941. According to these orders, three lakhs of rupees were earmarked for three divisions

Provincial Village  
Water Supply  
Scheme.

to be spent by the Collectors in consultation with the District Rural Development Boards. During the year under report various Boards approved different schemes of village water supply and sanctioned expenditure in accordance with Government orders.

In Nasik, a grant of Rs. 15,000 was made available for village water supply works out of which only Rs. 3,604 could be spent during the year. This amount was spent on the construction of new wells. In Poona, the District Rural Development Board sanctioned a total grant of Rs. 3,445 for several village water supply works, viz., sinking of wells, construction and deepening of wells, fixing *rahats*, to draw wells, etc., while in Satara, the District Rural Development Board spent Rs. 11,543 for village water supply.

In Kaira, funds to the extent of Rs. 35,000 were made available for carrying out village water supply works which were sanctioned partly by the District Rural Development Board, partly by the Collector from his discretionary grant, and partly from the village water supply grant. This enabled 60 villages to have considerable water supply facilities. In Ahmedabad, the work of village water supply, after it was transferred to the Rural Development Board, was taken up in 8 villages and involved an expenditure of Rs. 19,814. Similarly, in Surat, Rs. 19,684 were spent on village water supply with the help of which 3 incomplete works were completed and 4 new works were carried out.

In Ratnagiri, out of Rs. 50,000 sanctioned by Government for augmenting village water supply, Rs. 14,941 were allotted for carrying out a village water supply scheme in 16 villages.

64. In addition to the above works carried out in consultation with Minor Water the District Rural Development Boards under Supply Schemes. recent Government orders, several minor grants were made by the Boards themselves or by the Collectors out of their discretionary grants or out of the Government of India grants to augment village water supply facilities. An interesting item in this connection comes from Kanara where, in addition to the grants made by the Rural Development Board for improving the water supply of some villages, a project for a well for Harijans at Kekkar was financed from the discretionary grant of the Collector. In Poona, the Collector sanctioned Rs. 2,426 out of his discretionary grant for improving water supply arrangements in several villages of the Eastern part of the district. In parts of Ahmednagar, where scarcity conditions are common and where the problem of water supply is very acute, the Rural Development Board made minor grants to the extent of Rs. 1,500, while the Collector made a grant of Rs. 2,712 for deepening and repairing the existing wells, construction of water troughs and fixing *rahats*. Grants were also given in several other Districts, viz., Nasik, West Khandesh, Broach and Panch Mahals and Kolaba for better water supply facilities.

## IX. PUBLIC HEALTH AND SANITATION.

65. In the sphere of public health and sanitation, the activities of the Rural Development staff and the District Rural Development Boards consisted of propaganda in favour of measures beneficial to the health of the rural population and allotment of grants for maintenance of medicine chests, training village midwives (dais), and assistance to medical practitioners settled in rural areas.

66. In Ahmednagar, a "Public Health Week" was observed in one village in each taluka where lectures on epidemics and their prevention were delivered. Prizes were given to clean and healthy babies and the necessity of keeping them clean and giving them healthy food was impressed upon the rural public.

In Ahmedabad, the District Rural Development Board arranged with the Medical Officer, Sanand, to deliver lectures on sanitation and personal hygiene to Circle Inspectors, Police Constables and Talatis of the Sanand Mahal. They were shown how to teach the villagers to live in sanitary conditions. Leaflets on malaria, cholera, small-pox and child welfare were also distributed. Thirteen allopathic subsidised medical practitioners were asked to give a short course of instruction to school teachers with a view to their imparting the same to the village children.

The Civil Surgeon, Kanara, with the help of his subordinate medical officers, arranged for several lectures on hygiene, water supply, conservancy, vaccination, maternity, child welfare and infectious diseases etc. A sum of Rs. 750 was placed at the disposal of the Civil Surgeon, for purchasing quinine for supply to the villagers. In Kolaba, under the guidance and personal efforts of the Civil Surgeon, propaganda for rural health and sanitation was carried on in Alibag and Pen talukas, and about 8,000 villagers attended the lectures and exhibitions arranged by him.

67. In districts where the incidence of cholera is high, the Rural Development Inspectors delivered lectures and persuaded the villagers to get themselves inoculated. Special measures to combat the incidence of cholera were also taken in Satara and Sholapur. In Satara, a motor mobile unit consisting of 3 medical officers, 2 inspectors of sanitation and vaccination and 3 epidemic workers was organised for visiting villages affected by cholera, for mass inoculation and treatment. In Sholapur, to prevent the incidence of the disease at the time of Ashadhi fair, the district was divided into groups of villages which were entrusted to the members of Village Improvement Committees. They got the wells disinfected and assisted in taking preventive measures.

68. In several districts special attention was paid to the question of promoting child welfare and training of village midwives. In Satara, the Rural Development Board gave a grant of Rs. 750 to the Satara Health Association which

runs an Infant Welfare Centre, a maternity hospital and a women's and children's hospital at Satara, and supervises maternity centres at 5 villages. In Surat, under the Rural Medical Relief Scheme, three nurse-midwives are employed who, in addition to their ordinary routine work at the dispensaries, pay visits to the houses of poor agriculturists and give advice regarding infant welfare and general sanitation. In Poona, several grants were made by the District Rural Development Board to the child welfare centres. In Nasik, 2 dais were maintained in rural areas partly from donations and partly from grants made by the District Rural Development Board. In West Khandesh also, a trained dai for maternity work was appointed and the cost was borne by the Village Panchayat at Nandurbar and the District Rural Development Board. In Broach and Panch Mahals and Bijapur, steps were taken to get dais trained at Government hospitals. They were given stipends by the District Rural Development Board and the Anti-Famine Institute respectively.

69. A common method of providing medical relief in areas where there are no qualified doctors is by supply of small medicine chests containing standard medicines, such as quinine, boric acid and tincture of iodine, to persons who have been trained in the use of these medicines and who can make them available to village patients. The Rural Development Boards in many districts provided funds for supply of these medicine chests and training of suitable persons. In Nasik, 19 village teachers were trained in elementary allopathic treatment at the Civil Hospital, Nasik, and were supplied with medicine chests to treat minor ailments in their villages. In West Khandesh, 15 medicine chests were got prepared in consultation with the Civil Surgeon and placed in charge of Government Liquor Depot Managers. In Panch Mahals, ten table dispensaries were opened with the help of a grant made available by the District Rural Development Board and medicines worth Rs. 200 were provided by the Board.

70. Amongst other activities in the sphere of public health and sanitation, the following deserves special mention. In Kanara, a "Diwali Cleaning Campaign" was organised in the district and the villagers were asked to clean their dwelling houses and keep the compounds and cattle sheds clean and tidy on the Diwali day. The District Rural Development Board, Dharwar, made a grant of Rs. 600 to the Biology section of the Karnatak College under Professor P. W. Gideon for experiments in dealing with diseases like malaria and guinea-worm. In Kolaba, "Village Well Disinfection Day" was observed, when nearly 5,000 wells in 1,811 villages were disinfected. The police officers under the guidance of Mr. G. W. Khot, the District Superintendent of Police, helped considerably in this work. In Ratnagiri, the District Rural Development Board sanctioned Rs. 140 for grant of certificates to villages in which no epidemics have broken out during the last five years and where primary vaccination has been completed.

In Broach and Panch Mahals, the construction of bore hole latrines was taken up for intensive propaganda as a result of which many villages are reported to have decided to have these latrines.

## X. EDUCATION.

### (1) ERADICATION OF ILLITERACY.

71. The problem of primary education in rural areas is being tackled through the establishment of schools by the District Local Boards or private schools to which grants are made by the District Local Boards or through voluntary schools managed by private bodies to which grants are made directly by the Educational Department. In some districts, the Rural Development Boards have also made small grants to enable educational institutions to start more schools in rural areas. The scheme for starting primary voluntary schools, which are normally organised in villages with a population of less than 700 and to which equipment and maintenance grants are made by the Educational Department, has made good headway in the Province. The number of these primary schools has increased from 4,412 to 4,730 as has the number of children attending them, which now stands at 30,586.

72. Adult Education Classes are started in suitable villages with a view to impart education to the adult village population. Most of the Adult Education Classes are held at night to facilitate the attendance of adults who are busy during the day time. Last year there was an appreciable fall in the number of such classes and the number of students who attended them but, owing to the revised scales of Government grants to these classes, there was a substantial rise in the number of classes as well as the adults attending them during the year under report. The number of such classes has increased from 595 to 904 and more than 2,000 adults are receiving training at these classes.

### (2) PROVISION OF SCHOOL BUILDINGS AND PLAY GROUNDS.

73. More school buildings for accommodating the primary schools in the districts are being built. The efforts made in this direction in Ahmedabad deserve special mention.

## XI. GENERAL PROPAGANDA.

### SHOWS, PUBLICATIONS, DEMONSTRATIONS, CLASSES, ETC.

74. It has been realised more and more that without constant propaganda and actual demonstrations, the improved methods of agriculture and the use of improved implements, etc., cannot be brought home to the agriculturists. Attempts were made during the year to organise demonstrations, arrange lectures, hold classes, observe village

improvement days or weeks and show cinema films. The "Co-operators Week" was celebrated throughout the Province and at a number of places not only were meetings organized to carry on propaganda in favour of the co-operative movement, but also lectures were arranged or all matters relating to rural development, and exhibitions arranged to demonstrate improved methods of agriculture. His Excellency the Governor inaugurated the Week at Satara where a big meeting and an agricultural exhibition were organized. The exhibition held at Jalgaon, which was opened by the Adviser to the Governor, was also a great success.

In Nasik, there were 3 big agricultural, industrial and cattle shows organized at Ozar, Chikhali and Chandanpur respectively. Eighty-five demonstrations of standing crops were arranged in Igatpuri for showing the advantages of improved methods of tillage, manures, seed, etc. A "Health Week" was inaugurated in Nasik by the Adviser to the Governor, under the auspices of the District Health Association which has now been revived.

"Farmers' Weeks" or "Days" were observed at several places when lectures were delivered by the departmental officers and exhibitions were arranged. Several Taluka Development Associations arranged demonstrations of standing crops, control methods of plants pests, and manurial treatments. In some districts cattle rallies were held and prizes were awarded to the owners of good cattle. Pamphlets and other publications on rural development were also distributed.

#### VILLAGE UPLIFT VANS.

75. Another direction in which village propaganda was carried out was through the instrumentality of Village Uplift Vans. These vans are under the control of the Divisional Commissioners and systematic tour programmes are arranged for them in the various districts. They are usually equipped with magic lanterns, loud speakers and gramophones and contain charts and other model exhibits. Officers of different departments co-operated and delivered lectures, showed cinema slides in the course of the programmes of the vans, on various subjects such as sanitation, hygiene, nutrition and agricultural improvements.

#### VILLAGE FILM SCHEME.

76. The Village Film Scheme provides yet another means by which propaganda can be carried on to educate the villagers. The scheme aims at combining war publicity with diffusion of useful knowledge on other subjects. It naturally attracts better audiences on account of its novelty. The Director of Information supplies projectors and various films on the war and other subjects. In most districts, the members of the War Committees also associated themselves with the programmes and delivered lectures on the subject of the war and kindred questions.

## XII. TRAINING CENTRES FOR RURAL ASSISTANTS.

77. The scheme for training Rural Assistants for propaganda and rural development work in villages was continued during the year. Candidates were selected from various districts and were trained at one non-official centre at Bordi and 4 official centres at Broach, Dhulia, Manjri and Devihosur. Candidates were trained for the first 9 months according to the common syllabus and specialized training for the last three months, which was in the past given at Poona, was also given at the five centres. In all 119 students received training.

78. In accordance with Government instructions issued in March 1942, those candidates who can be usefully employed, and whose suitability for a particular department has been ascertained, will be employed in existing posts in Government service or elsewhere. Some of them will be absorbed as secretaries of co-operative societies which agree to employ them. The societies will not have to pay for their services during the first year, but they will be available for propaganda work in and near the village to which they are posted. Some will be employed as secretaries of Village Panchayats or Kamgars at Taluka Demonstration Centres, while others for whom no appointments can be found will be attached to the departments for which they are suitable as additions to the existing staff of those departments.

Your obedient servant,

S. M. IKRAM,

Registrar of Co-operative Societies and  
Director of Rural Development.

Accompaniments : Statements 1 to 4.

## STATEMENT No. 1.

*Expenditure on Rural Development during the financial year 1941-42.*

	Rs.
<i>General Administration—</i>	
W-1 Rural Development Staff—	
(1) Pay of Establishment .. .. .	99,408
(2) Allowances and Honoraria .. .. .	33,996
(3) Contingencies .. .. .	11,801
	1,45,205
Discretionary grants to Collectors for Rural Development ..	1,39,528
	29,133
District Rural Development Boards—	
(1) Pay of Establishment .. .. .	19,494
(2) Allowances and Honoraria .. .. .	2,890
(3) Contingencies .. .. .	6,749
	29,133
Prizes in connection with Village Improvement Schemes ..	1,900
Economic development and improvement of rural areas ..	1,69,606
Special Development Programme .. .. .	86,146
Total ..	5,71,518
<i>Agriculture—</i>	
Grant-in-aid, contributions—	
(a) Subsidies to Taluka Development Associations ..	39,252
(b) Cotton Seed Distribution Schemes .. .. .	70,162
Agricultural Demonstration and Propaganda, etc.—	
(1) Taluka Demonstration centres .. .. .	11,063
(2) Seed multiplication and distribution .. .. .	13,308
(3) Cotton Transport check Stations .. .. .	4,816
Special Development Programme—	
(a) Training of Rural Assistants .. .. .	1,03,415
(b) Bunding and Dry Farming Survey Scheme .. .. .	37,167
(c) New Additional Taluka Demonstration Centres .. .. .	4,964
Total ..	2,84,147
<i>Co-operation—</i>	
Grant-in-aid—	
(1) Grant-in-aid to Co-operative Marketing, Co-operative Production and Better Farming Societies .. .. .	7,752
(2) Grant-in-aid to Multi-purpose Societies .. .. .	1,063
(3) Grant-in-aid to Local Bodies (Cotton Market Committees) .. .. .	150
Scheme for improvement of Agricultural Marketing in India—	
(1) Pay of Officers .. .. .	13,130
(2) Pay of Establishment .. .. .	5,773
(3) Allowances and Honoraria .. .. .	6,513
(4) Contingencies .. .. .	1,984
Total ..	36,365
Grand Total ..	8,92,030



## STATEMENT No. 2.

*Distribution of Manures.*

Serial No.	Name of the District.	Total amount spent by District Rural Development Boards, Taluka Development Associations and other Societies or Associations, for supplying manures.		Main kinds of manures supplied.
		Quantity.	Amount.	
1	2	3	4	
		Lbs.	Rs.	
1	Kaira .. ..	14,46,813	....	Castor cakes, groundnut cakes, Vanchhia cakes, sulphate of ammonia, bonemeal, denatured salt, sann seed.
2	Broach and Panch Mahals.	2,120	....	Groundnut cake, sann seed.
3	Thana .. ..	2,34,637	....	Sulphate of ammonia, groundnut cake, bonemeal, red label mixture, denatured salt.
4	Ahmednagar ..	15,29,108	....	Ammonium sulphate, oil cakes, bonemeal.
5	East Khandesh ..	38,351+ 44,80,000 supplied by Co-operative Institutions.	....	Sann seed, lucerne seed, groundnut cake manure.
6	West Khandesh ..	3,61,889	8,234	Ammonium sulphate, groundnut cake, castor cake, sann seed, bonemeal, red label mixture, niciphos.
7	Nasik .. ..	3,47,200	....	Groundnut oil cake.
8	Poona .. ..	....	760	Oil cakes, sann seed.
9	Satara .. ..	3,91,721	....	Sulphate of ammonia, oil cakes, groundnut castor, sann seed, bonemeal, red label mixture.
10	Sholapur ..	18,18,072	....	Sulphate of ammonia, oil cakes, groundnut cake, castor cake, sann seed, bonemeal, red label mixture.

## Statement No. 2—contd.

Serial No.	Name of the District.	Total amount spent by District Rural Development Boards, Taluka Development Associations and other Societies or Associations, for supplying manures.		Main kinds of manures supplied.
1	2	3		4
		Quantity.	Amount.	
		Lbs.	Rs. a. p.	
11	Belgaum ..	4,65,192	....	Oil cakes, sulphate of ammonia, sann seed, bonemeal, red label mixture, denatured salt.
12	Bijapur ..	9,774	....	Sulphate of ammonia, oil cakes, sann seed, bonemeal.
13	Dharwar ..	70,775	....	Groundnut cake, manure bonemeal, red label mixture salt.
14	Kanara ..	73,844	....	Sulphate of ammonia, oil cakes, groundnut cake, manure bonemeal, red label mixture, fish manure.
15	Ratnagiri ..	....	120 8 0	Ammonium sulphate, oil cake, bonemeal, etc.

## STATEMENT No. 3.

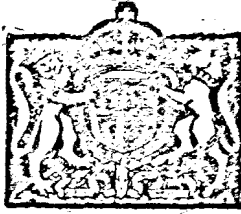
## Seed Distribution Work.

Serial No.	Name of the District.	Banilla cotton and other cotton varieties.	Jarilla cotton.	Akola Bajri and other varieties.	Wheat of different varieties.	1027 A. L. F. cotton.	Ground-nut of different varieties.	Sugar cane.	Jowar of different varieties.	Rice of different varieties.	Other reeds.
1	2	3	4	5	6	7	8	9	10	11	12
		Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Sets.	Lbs.	Lbs.	Lbs.
1	Ahmedabad .. ..	8,990	..	11,710	44,885	..	180	..	..	..	130
2	Kaira .. ..	92,652	..	5,310	69,841	980	..	..	49,757	480	37,793
3	Broach and Tanch Mahals .. ..	..	..	201	1,22,701	..	..	..	2,801	..	1,255
4	Surat .. ..	..	..	..	..	10,38,337	..	..	11,660	..	..
5	Thana .. ..	..	..	..	..	..	..	..	..	39,330	..
6	Ahmednagar .. ..	39,307	4,040	57,670	49,655	..	23,062	73,000	85,769	..	1,59,600
7	East Khandesh .. ..	..	..	5,340	68,560	..	..	..	..	..	..
8	West Khandesh .. ..	800	35,840½	15,758½	2,83,154½	11,758	95,820	1,00,230	3,511½	12,000	5,505
9	Nasik .. ..	..	1,03,090	3,240	7,720	..	..	..	4,800	4,450	95,350
10	Poona .. ..	18,760	..	8,160	6,782	..	..	..	33,578	..	15,550
11	Satara .. ..	..	..	2,786	4,782	..	16,191	..	10,154	2,199	..
12	Sholapur .. ..	37,400	15,435	314	3,992	..	7,130	2,15,000	75,311	40	108
13	Belgaum .. ..	5,85,862	..	..	34,454	..	9,839	10,58,750	9,565	59,592	3,615
14	Bijapur .. ..	20,48,428	..	..	4,820	..	896	..	55,680	..	116
15	Dharwar .. ..	..	48,69,327	..	3,548	..	19,677	..	24,000	1,68,300	1,646
16	Kanara .. ..	..	..	..	..	..	..	..	..	1,09,100	514
17	Ratnagiri .. ..	..	..	..	..	..	..	..	..	54,800	2,000

## STATEMENT No. 4.

*Land Development.*

Serial No.	Name of the District.	Length of the bunds constructed during the year. (in feet).	Area of land protected by bunds. (in acres)
1	2	3	4
1	Ahmedabad .. ..	5,000	100
2	Broach and Panch Mahals .. ..	2,30,300	1,490
3	Thana .. ..	9,150	15
4	Ahmednagar .. ..	..	4,043
5	West Khandesh .. ..	2,75,127	5,094
6	Nasik .. ..	..	3,774
7	Satara .. ..	..	1,297
8	Sholapur .. ..	1,42,125	2,002
9	Belgaum .. ..	33,000	362
10	Bijapur .. ..	3,95,952	5,589
11	Dharwar .. ..	3,05,850	1,406



# Annual Report of Rural Development Activities in the Province of Bombay

*For the Year 1943-44*



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1945

No. RUL/15 of 1944

Poona, the 4th November 1944.

From

S. M. IKRAM, Esq., I.C.S.,

Registrar, Co-operative Societies, and

Director of Rural Development, Bombay Province,

POONA.

To

THE SECRETARY TO GOVERNMENT,

Revenue Department, Secretariat, Fort,

BOMBAY.

SUBJECT.—*Rural Development.*

Report of — Activities.

I submit herewith the Report of the Rural Development Activities in the Province of Bombay for the period beginning on the 1st April 1943 and ending on the 30th June 1944.

*General Observations.*—During the period under report, the officers of the Revenue Department, who co-ordinate the rural development activities in the districts were preoccupied, among other things, with the work arising on account of the war, and a very difficult food situation in the province, while various other Departments, connected with rural development, were working under many serious handicaps. It will, however, be seen from the following pages that these difficulties were not allowed to interfere with the normal rural development work. As a matter of fact food shortage in this province brought home the need for fully husbanding the agricultural resources of the Province, and the steps, which were taken by the Government for the purpose, led to an enormous increase in the activities of the Agricultural Department. At the same time, the arrangements which were made by Government for distributing food-stuffs and the controlled articles in the rural areas helped the co-operative movement. These arrangements were left to the Collectors and differed from district to district, but on the whole, the co-operative societies got a substantial share of the distribution work in the rural areas and many village co-operative societies were able to enlarge their functions and take up other activities besides supply of rural credit. Activities of the irrigation section of the Public Works Department also received an impetus owing to the need for growing more food crops and bringing the maximum area under irrigation.

Another important feature of the work during the year was the preparation of post-war plans of Government. They have been drawn up with very special attention to the needs of rural areas and will vitally affect the course of rural development in this province, but as the brochure outlining these schemes was published after the close of the period under report, they have not been described here.

## I. AGRICULTURE.

### (1) LAND DEVELOPMENT.

The progressive and permanent improvement and development of agricultural, forest and waste lands and the prevention of soil erosion in areas liable

to famine received great impetus during the period under report, as a result of the acute famine conditions in some areas of the Province, particularly Bijapur and portions of Sholapur.

In April 1943, Government sanctioned as a famine measure, schemes of large scale experimental bunding in two circles viz. the South Circle comprising the Bijapur district and other parts of the Karnatak and the North Circle including Sholapur and the other Deccan districts. In the South Circle, the area contour-banded and trenched in the Bijapur district alone was 1,25,000 acres, of which 20,000 to 30,000 acres were under contour trenching. Of the total banded area, about 10,000 acres are included in 12 Village Developmental Projects subsidised by the Sir Cusrow Wadia Trust Fund, the remaining area of well over a lakh of acres being contour-banded at Government expense in connection with large scale experimental bunding projects at 27 centres. Including such large scale bunding projects, Village Developmental Projects and block bunding for private owners, contour-banding work has been carried out in no less than 75 villages in the Bijapur district. In the North Circle, about 37,000 acres have been banded under large scale experimental bunding projects and 3,000 acres under Village Developmental Projects sanctioned in different districts.

The introduction of scientific dry farming methods on the banded areas is now being carried out simultaneously with the actual bund constructions. About 8,000 acres have already been cultivated in accordance with the improved methods, out of which 6,000 acres were in the Bijapur district. The results in better crop production were most noticeable and attracted much attention from the cultivators. The Bombay Land Improvement Schemes Act, 1942, is being applied to all areas in which land development work has been or is being carried out with Government assistance or through Government agency.

Under the modified scheme, which came into force from 1st April 1944 Government will carry out the work through the agency of the Land Development Section of the Agricultural Department and will bear 25 per cent. of the total cost which is estimated to be Rs. 12 per acre on an average. The remaining 75 per cent. will be recovered from the holders of the lands in 12 annual equated instalments of annas 12 per acre, free of interest. In addition Government has agreed to bear the cost of day farming operations which works at Rs. 3 per acre.

In addition to the work done by the Land Development Section of the Agricultural Department, many District Rural Development Boards interested themselves in anti-erosion measures and maintained staff and spent money for the purpose. Information regarding the length of the bunds constructed with the help of Boards and the area protected is furnished in statement No. 4 appended to this report.

## (2) INTRODUCTION OF :

### (i) IMPROVED TILLAGE METHODS.

Activities under this head consisted of efforts to persuade the cultivators to take up to grading of seed with suitable sieves, dibbling of seed, wider sowing of crops, ploughing with iron ploughs, interculturing etc. The Taluka Demonstration Centres, which now number 174 in the province, have been of considerable help in introducing the improved tillage methods in villages round about the centres. The work has been particularly noticeable in the Panch Mahals Sub-division and the districts of Bijapur, Sholapur and Belgaum.

## (ii) IMPROVED IMPLEMENTS.

In several districts there was a growing recognition of the need for the use of improved implements, as a result of which the demand for the use of these implements has greatly increased. In this field of activity, Taluka Development Associations, Taluka Demonstration Centres, Co-operative Implement Societies and Better Farming Societies rendered useful service by giving on hire various types of implements like Allan Gandhi harrows, iron levellers, improved iron ploughs, Sayan harrows, groundnut drills, Jenkins Clod crushers, etc., to the cultivators. These activities were further supplemented by the Rural Development Boards, which also made arrangements for stocking implements in some cases or arranged for supply of some implements at concession rate. The Rural Development Board, Belgaum, maintained 15 implement Depots in the district where about 500 implements such as iron scrappers, iron ploughs, dust guns, cane-crushers etc., were stocked and given to the cultivators on a nominal rent. The areas, which have reported noteworthy activity under this head, apart from Belgaum, are Kaira, Sholapur, Ahmednagar and Panch Mahals.

As cultivators were experiencing difficulty in many areas in obtaining iron for plough shears, Rahat buckets, gul-boiling pans etc., Government instructed the Agricultural Engineer to collect information about the estimated requirements of iron per each district. As a result, a part of the required quantity of iron has been purchased as released by the Deputy Controller of Iron and Steel and supplied to Taluka Development Associations, Co-operative Implement Supply Societies, approved agents etc., for supplying the requirements of the cultivators.

## (iii) MANURE.

Intensive propaganda was made for the use of various manures to increase the fertility of the soil and the need for using sann green manure, compost-making etc., was stressed. In many districts, digging of improved manure pits was advocated and the use of sann and Ikad seed for green manuring and groundnut cake, as top-dressing to irrigated crops, was emphasised. Preparation of compost by using farm refuse was done in some areas and concentrated manures such as bone meal and groundnut cake were supplied to the cultivators for use on various crops.

*Oil cakes.*—In order to increase the production of rice and irrigated wheat, groundnut cake was distributed to the cultivator of these food crops at a concession of Rs. 50 per ton. In all, 10,169 tons of groundnut cake were given to the cultivators and the total amount of subsidy given by Government was approximately Rs. 4 lakhs. There was a great demand for Karanja and castor cakes in some districts.

*Compost Manure.*—Composting of farm wastes has received great impetus by the announcement of a subsidy of Rs. 3 per pit, of which Re. 1 is made available for digging the pit and Rs. 2 when compost has been prepared in it and supplied to food crops in the fields. The Kamgars of all Taluka Demonstration Centres were asked to get 20 pits dug out and filled with farm wastes by the cultivators within a radius of five miles round each Taluka Demonstration Centre. In all, 4,970 pits are dug—2,530 in Northern Division, 1,200 in Central Division, 236 in Southern Division and 1,004 in Konkan. Preparation of compost from the town refuse purchased from the Municipality was also advocated to the cultivators in the vicinity of the towns. About 500 cart-loads of fine compost were prepared by the cultivators around Belgaum in this way.



A scheme for the encouragement and extension of composting of town refuse by the municipalities has been in progress with the financial assistance of the Bombay Government and the Imperial Council of Agricultural Research. The staff appointed under this scheme has received the necessary training at Pandharpur where about 5000 cart-loads (2,500 tons) of compost have been prepared. Most of this compost has been, however, utilized by the sugarcane growers as the cultivators of dry crops round about Pandharpur did not take to its use. It has been thus found necessary to demonstrate the value of compost to these cultivators. Similar work of preparing compost has been undertaken by five other Municipalities viz. Nadiad, Broach, Sholapur, Ahmednagar and Dharwar.

*Chemical Fertilizers.*—One thousand and nine hundred tons of sulphate of ammonia and 2,000 tons of ammonium phosphate have been allotted to the Bombay Province for manuring of paddy, potatoes, other vegetables and sugarcane. The above quantity has been stocked at the various depots of the Imperial Chemical Industries (India), Ltd., and is being distributed to the cultivators under the supervision of the staff of the Agricultural Department. In Nagar, 3,440 lbs. of bone manure for fruit trees were supplied to the cultivators through co-operative societies and Taluka Development Associations and the use of chemical fertilizers was increasingly made in the areas under vegetable cultivation. In the Karnatak districts and in the Konkan, 177 tons of bone meal was distributed at concessional rate for manuring rice crop and the total amount of subsidy borne by the Government was approximately Rs. 7,500.

### (3) SEED MULTIPLICATION AND DISTRIBUTION.

According to the model scheme prepared by the Director of Agriculture, departmental farms are utilized for the production of pure pedigree seeds of improved crops like paddy, jowar, wheat, bajri, maize, gram etc. In the case of certain farms, especially the Rice Farms at Mugad, Kunta, Karjat and Igatpuri, additional land has been taken for this purpose. These pedigree seeds are distributed to the Taluka Demonstration Centres and other approved cultivators for further multiplication. In Jalgaon and Amalner talukas, a special scheme has been launched for the multiplication of Gulab wheat and during the year 8,220 lbs. of pedigree Gulab wheat seed were distributed. At the end of the second stage the seed is normally handed over to the Rural Development Department for distribution and further multiplication of these improved strains. The work which is being done by the various Rural Development Boards under this head has been eclipsed during the period under report by the intensified activity of the Agricultural Department under the "Grow More Food Campaign", of which the distribution of improved seed formed an important part, but the scheme remained in operation, and almost all the District Rural Development Boards assisted, in various degrees, in the supply of improved seeds for the crops grown in their areas.

During the year under report, under the "Grow More Food Crops" Campaign, the Agricultural Department opened depots at different centres in the districts for the supply of improved seeds and in all Rs. 12,26,469 were expended in this work of purchase and distribution of improved seed, out of which Rs. 2,55,372 were irrecoverable, being absorbed in concessions and expenses for storage, distribution etc. The above amounts do not include the finance made available by Government for seed distribution in the areas affected by famine.

The figures for the total quantity of improved seed distributed among the cultivators and the area covered are given below for the important food crops :—

Crop.	Total quantity in maunds.	Area covered in acres.
Paddy ... ..	35,540	46,103
Bajri ... ..	7,902	1,11,881
Jowar ... ..	30,313	1,53,858
Wheat ... ..	32,600	50,318
Maize ... ..	3,206	8,464

The schemes of increased vegetable cultivation, entrusted by Government to the Department of Agriculture, increased the demand for vegetable seed and this demand was met partly by growing vegetables on the farms for seed production and partly by supply obtained from abroad under lease-lend.

#### (4) CROP PROTECTION AGAINST :

##### (a) INSECT PESTS.

Extensive propaganda was carried on by the officers of the Rural Development and the Agricultural Departments for the use of various control measures for insect pests and diseases. In several districts, where crops were affected by insect pests, suitable measures to deal with them were adopted.

*Caterpillars, Hoppers, etc.*—In the Bombay Suburban district, remedial measures were explained to the villagers against cocoon caterpillars. In Ahmednagar the work of controlling the grass-hoppers in the canal area was continued and measures like spraying of crude oil, dragging coal tarred iron sheets etc. were adopted. In Belgaum, the Collector sanctioned a sum of Rs. 2,000 from his discretionary grant to provide for the use of tarred tin sheets to control the attack of grass-hoppers. There was also an attack of grass-hoppers on paddy and the Rural Development Board took measures to control about 300 acres of paddy. Similarly, 1,550 acres under vegetable were protected by spraying and dusting operations from time to time.

*Other pests.*—In the Panch Mahals, the Assistant Collector sanctioned a sum of Rs. 100 for supply of 10 lbs. cynogas dust for killing white ants and field rats. In Kaira, the kharif season was marred by the ravages of rats, which also attacked wheat and jowar crop. Nearly 10 lakhs poison baits were supplied free of charge and rats burrows were fumigated in some talukas. In Ahmedabad, the Rural Development Board spent a sum of Rs. 362 to deal with the ravages of field rats in Dholka, Dhandhuka and Dascroi talukas.

##### (b) PLANT DISEASES.

*Use of Sulphur Dust.*—The main protection against smut on jowar and various other plant diseases is the use of sulphur dust. It has become difficult to apply this on large scale on account of shortage of sulphur, but in areas where old stocks existed or some sulphur was available it was distributed at concession rate. Work under this head is reported, from Ahmedabad, Kaira, Broach, Dharwar and Bijapur, but the most remarkable work was done in East Khandesh, where the Central Co-operative Bank distributed 12,000 sulphur dust packets to prevent black smut on jowar and 5,000 santra and mosambi plants and 15 mango trees were treated against stem-borer. In Panwel taluka of Kolaba, insecticides and fungicides were supplied free for use on garden crops.

*Use of Bordeaux Mixture.*—In Ahmednagar, bordeaux mixture was used against mildew on grapes and in East Khandesh, use of creosote oil was made for 3,000 mosambi plants. In Kanara spraying of bordeaux mixture against koleroga was continued and 10,000 acres under betelnut were sprayed.

#### (c) WILD ANIMALS.

The Shikar Officer, with his Assistants, continued to carry out the work of protecting crops from the ravages of the wild animals through the organisation of gun clubs in various districts. In all, there were 71 gun clubs and 2,458 wild animals were destroyed during the period under report. Other organizations like co-operative crop protection societies and fencing societies also made useful contribution in some districts in tackling this problem.

In Kaira, the District Rural Development Board sanctioned Rs. 500 by way of rewards to gun clubs for killing wild pigs. Two new gun clubs were started during the year. The Shikar Officer received considerable assistance from the Police Department in protecting crops against wild animals and 672 nilgai were killed during the year.

In Ahmednagar, a Special Shikar Officer was engaged to organize gun clubs in Kopergaon, Rahuri and Sangamner talukas and help the cultivators in killing bats who had become a great menace to fruit trees. Other areas, where energetic measures were taken against wild animals, were East Khandesh, Kolaba, Belgaum, Dharwar and Bijapur. In Dharwar, in addition to gun clubs, this activity is carried out through the co-operative fencing societies. The Supervisor of the Fencing Societies' Union was responsible for killing 84 wild pigs.

#### (5) HORTICULTURAL DEVELOPMENT.

During the year, there has been a great demand for grafts, seedlings, suckers, etc., of reliable fruit trees and also of vegetable seed in almost all districts. In most districts the propaganda for the development of fruit culture was made.

*Supply of Plants, etc.*—In addition to many commercial concerns, the Ganeshkhind Fruit Farm, maintained by the Agricultural Department, made large supplies of fruit-tree stocks available to growers. In Kolaba, North Kanara, Belgaum, Dharwar, Kaira, East Khandesh and Bijapur, the Rural Development Boards assisted in supply of plants, often at concession rates, to the agriculturists.

*Maintenance of Nurseries.*—District Nurseries for growing fruit have been established in the six districts of Ahmednagar, Bijapur, Nasik, Kolaba, Panch Mahals and Ratnagiri, and on some of the agricultural departmental farms. The Horticulturist to Government is maintaining shade tree nurseries on some of the departmental farms and Taluka Demonstration Centres and during the year, over one lakh seedlings were distributed for planting on "Arbor Days" in the districts. The Wilson Anti-famine Institute, Bijapur, Kolaba Rural Development Board and Ahmednagar Rural Development Board gave Rs. 630, Rs. 830 and Rs. 1,000 respectively for maintenance of nurseries for raising shade trees and other plants. Good work in this connection is also reported from Kaira and North Kanara.

*Tree Planting days.*—Tree planting days were celebrated in the districts of Sholapur, Satara and Ahmednagar.

## (6) ANIMAL HUSBANDRY.

*Premium bulls.*—The most important activity of the Livestock Section of the Department of Agriculture is that of cattle improvement, and it has got over 650 premium bulls and 18 gift bulls on its working list. The majority of the gift bulls are working in East Khandesh district. The gift bull fund has now been converted into the "District Livestock Advance Fund" and the amount allotted to each district will be used for the issue of premium bulls. There are over 300 premium cows on the records of the Livestock Section.

The District Rural Development Boards have done a lot to supplement the work of the Agricultural Department. The Surat Board, last year, sanctioned a scheme for purchase of pre-bred kankrej cows from Ahmedabad district and now there are 239 cows with 90 pre-bred calves, out of which 27 typical male calves are selected for rearing as future stud bulls. The Broach District Rural Development Board gave financial help of Rs. 2,000 for purchase of premium bulls and premium cows of kankrej breed. The Rural Development Board also spent Rs. 600 for supply of kankrej cows to poor cultivators free of cost and a further amount of Rs. 1,200 in supplying kankrej cows and stud bulls to the villagers of Halدار at half cost.

In several other districts viz. Kaira, Thana, Nasik, East Khandesh, Sholapur, Satara, Poona, Bijapur and Dharwar, the District Rural Development Boards interested themselves in these activities and made contributions on a varying scale for the purchase of breeding bulls and cows which were supplied to selected villages at various concessions.

*Cattle Breeding Organizations.*—Cattle Breeding Associations working in Ahmedabad (for Kankrej breed), Sholapur (for Khillar breed) and East Khandesh (for Nimar breed) were responsible for tattooing and registering 1,500 pure bred animals. The Rural Development Boards assisted these and other organizations interested in cattle breeding with the help of grants. The Sholapur Rural Development Association sold cows to Harijans at 50 per cent. and to soldiers' families at 75 per cent. concessional rates.

The Livestock Improvement Act has been applied to over 100 villages and about 30 were surveyed with a view to seek Government permission for application of the Act to those villages. For the preservation and improvement of fodder, 10 cattle breeders' societies were formed mainly for collective and rotational grazing besides improvement of cattle.

*Cattle Rallies.*—Amongst other measures, cattle shows and cattle rallies, which were held in several districts, served a useful purpose in bringing home to the agriculturists the need for maintaining good breeds of cattle. Three All India Regional Cattle Shows were held at Mahud in Sholapur district for khillar breed from 5th to 9th December 1943, at Sanand in Ahmedabad district for Kankrej breed from 9th to 11th January 1944, and at Nasik Road in Nasik district for Dangi breed from 1st to 3rd February 1944. The show at Sanand was opened by His Excellency the Governor of Bombay. All the shows were largely attended and a large number of cattle was exhibited thereat. Twelve other (District) Cattle Shows were held during the period under report. All these shows were partly financed from the All India Cattle Show Fund. Amongst the District shows, the District Agricultural and Cattle Show at Sarangkhedra in West Khandesh held from 10th to 12th December 1943, deserves special mention. The show was opened by the Commissioner, Central Division, and at the show 198 cattle heads of different breeds were exhibited.

The cattle rallies held at Haldar (in Broach and Panch Mahals district), Nadiad (Kaira), Savargaonpeth and Puntamba (in Ahmednagar district) and at Naitala (in Nasik district) call for special mention. In East Khandesh, Pola days were held in 10 selected villages of each taluka and peta, where programmes of cattle improvement were organised. Leaflets were distributed and speeches on care of the cattle were made.

*Veterinary Work.*—Amongst other measures, the Veterinary Department took steps for protecting a large number of cattle against outbreak of Rinderpest in various parts of the Province. Similar steps for vaccination or serum inoculation of cattle were taken against Hæmorrhagic Septicæmia and black quarter and anthrax. Foot and mouth diseases appeared in many districts and the officers of the Veterinary Department did their best to cope with the problem. At Veterinary Dispensaries throughout the Province, over 2½ lakhs of animals were treated for medical and surgical diseases and about a lakh of animals were treated in villages by the officers of the Veterinary Department while on tour. The Department has placed 47 village medical chests for treatment of animals in the villages of the Province.

*Poultry Farming.*—The three Government Poultry Farms at Kirkee, Dharwar and Dhulia rendered valuable help to all the Rural Development Boards in promoting this activity. In Sholapur, Satara, West Khandesh and Poona districts, the poultry extension work has been so extensive and has so far penetrated into the villages that the big demand of the Military both for birds and eggs for their units was met from these districts.

In Kaira, Thana, Panch Mahals, Ahmednagar, East Khandesh, Sholapur, Belgaum and Kolaba also the District Rural Development Boards encouraged poultry farming by various items of assistance. In East Khandesh, the Rural Development Board maintained a poultry kamgar to supervise and guide the poultry improvement work, while in Sholapur, the Rural Development Association maintained a poultry farm at Kurduwadi.

*Sheep Farming.*—The sheep improvement work mainly aims at the introduction of better woolled white sheep in the selected sheep breeding areas of the Province. Two sub-stations under main Sheep Breeding Research Scheme at Poona have been established at Javale in Sangola taluka in Sholapur district and at Anagwadi in Bagalkot taluka of Bijapur district, with the object of extending the benefit of the research work to the rural areas. At these centres the co-operation of the local shepherds has been obtained and rams with superior white wool are introduced into their flocks for grading up of the local sheep population. In the Sheep Breeding area of Sangola taluka there are now 52 selected rams heading flocks of the local breeders with about 1200 white breeding ewes. Recently 10 flocks of better woolled type have been located in the vicinity of the sub-station near Anagwadi. The work of introduction of white woolled rams to head the flocks of the Backward Class agriculturists of Bijapur district is now undertaken and 20 rams are placed among the flocks owned by the Lamadis.

#### (7) GRASS LAND AND FODDER SUPPLY.

In many districts steps were taken to introduce new varieties of grass and fodder and to train agriculturists in proper methods of conservation of grass and the rightlines of grazing. The work done in Broach, Dharwar and Bijapur deserves special mention. In Bijapur, where scarcity of fodder was greatly felt during

the year owing to the failure of crops, the Bijapur Famine Relief Committee, Bombay, helped in saving the cattle by opening mass feeding centres in the district and cattle camps at suitable centres.

The construction of silos is an important step in the proper storage and preservation of fodder and during the period under report, 32 silo pits were filled and demonstrations made in different parts of the province. Most of these were financed by the Rural Development Boards.

## II. CO-OPERATION AND MARKETING.

### RURAL CREDIT.

Most of the co-operative societies in the rural areas aim at supplying credit on easy and reasonable terms to the agriculturists. Out of a total number of 6135 co-operative institutions in the Province, 4094 are primary agricultural credit societies. In recent times, however, a large number of well-managed agricultural credit societies have widened their sphere of activities and are taking up additional items of work, like supply of seed, manure, implements and domestic requirements etc. in addition to the supply of finance. During the period under report, this tendency received a fillip on account of the recent Government policy of utilising efficient and well-managed co-operative societies as agencies for distribution of food-grains and other controlled articles in rural areas and has afforded them a useful opportunity to prove their utility not only to their members but to the general public.

*The Bombay Agricultural Debtors Relief Act.*—The Bombay Agricultural Debtors Relief Act has been in operation in 16 talukas and petas of the Province for some time past. A committee was appointed to review the working of the Act and to suggest improvements. As a result of the report of the committee, Government proposes to amend the Act and to extend its working to 76 talukas and petas of the Province. With the extension of the Act, arrangements for provision of finance to debtors of their cultivation needs are being made, and Government expects that this will be done mainly by the co-operative societies. Steps are being taken to organise, in the areas selected for the extension of the Act, a net work of co-operative credit societies which would be able to finance debtor at a reasonably low rate of interest. With a view to link up credit for crop finance with the marketing of produce of the debtors, steps to organize sale organisations in the areas where the Bombay Agricultural Debtors Relief Act would be extended, are also in progress.

### NON-CREDIT WORK IN RURAL AREAS.

The number of agricultural non-credit societies undertaking agricultural propaganda and activities of Rural Development like marketing of agricultural produce, supply of improved seed, etc., increased from 441 to 570.

#### (1) TALUKA DEVELOPMENT ASSOCIATIONS AND BETTER FARMING SOCIETIES.

*Taluka Development Associations.*—With the registration of 2 Taluka Development Associations in Nasik and Belgaum districts, the number of Taluka Development Associations rose from 113 to 115. In addition to their usual activities of propaganda for and demonstration of quality seed, improved methods and improved implements to raise the agricultural production of

cultivators, these associations continued to take a prominent part in the "Grow More Food Crops Campaign". They were utilized by the Agricultural Department and the Rural Development Boards as agencies for distribution of improved seed and manure at concessional rates.

A few Taluka Development Associations, particularly those in the East Khandesh district, were, owing to their well built financial position, able to undertake some of the additional activities like maintenance of cattle breeding farms and running of poultry farm. The Jalgaon Taluka Development Association graded 7,812 eggs, of which 2,460 were given for hatching purposes. It maintained a cattle breeding farm at Pimple for improving Nemar breed of bulls. The Raver Taluka Development Association did useful work in protecting crops from the ravages of wild beasts by arranging for the killing of 70 wild animals. The Indi Taluka Development Association in Bijapur district supplied 1000 banana plants to cultivators and has maintained a nursery at Indi. The Taluka Development Associations at Khed and Junnar concerned themselves with the work of distribution of food-grains and sale of standard cloth. The Dhulia Taluka Development Association paid special attention to digging of manure pits and in its area of operations 2131 pits were dug during the year. The Shahade Taluka Development Association is reported to have supplied 11,785 grafts of fruit trees.

*Better Farming Societies.*—The number of better farming societies increased from 46 to 52, during the period under report. These societies supplement the work undertaken by Taluka Development Association. In view of their compact areas and smaller membership, they are able to help their members in realizing better results from definite items of agricultural improvements selected for being carried out by them. In addition to their usual activities, like supply of improved seed, manure, hiring implements, many of them concentrated on specific items of work like mass bunding or cattle breeding. The Tharpudi Better Farming Society in Poona district, which has been concentrating on land development work only, has been able to protect 717 acres of land by means of bunds. The total length of the bunds constructed measures 1,07,597 feet. Better Farming Societies in Dharwar district concentrated on cattle breeding work. During the year under report, many of the Better Farming Societies were granted a non-recurring grant of Rs. 250 for purchase of agricultural implements.

## (2) SALE SOCIETIES, AGRICULTURAL REQUISITE SOCIETIES AND IMPLEMENT SOCIETIES, ETC.

The number of co-operative marketing societies increased from 124 to 189 during the year.

*Bombay Provincial Co-operative Marketing Society.*—One of the principal objects of the Bombay Provincial Co-operative Marketing Society has been to sell the produce of the agriculturists. The restrictions on the movement of food grains and the difficulties in securing transport have made the realization of this object very difficult, but the Society was able to undertake the sale of fruits and vegetables as well as supply of ration and non-rationed articles to consumers societies and the distribution of charcoal to consumers in Bombay through authorised dealers. The Society was appointed by Government as its authorised agent for the purchase and despatch of groundnut oil cake for distribution to the cultivators in the province in connection with the "Grow More Food Crops" Scheme. The quantity of oil cake supplied during the period under report was more than 10 thousand tons valued at over Rs. 10 lacs. The work of distribution of charcoal resulted in an increase of

authorised charcoal dealers' shops from 100 to 300 during the year. The quantity of charcoal distributed was 47,127 tons valued at over Rs. 43 lacs. The Society also supplied some iron and steel required by the co-operative organisations for their members' use. The Society has recently been recognised as Central Purchasing Agency of the co-operative organisations in the province by the Controller General of Civil Supplies, Bombay and the Provincial Textile Controller, Bombay.

The Society suffered a serious setback last year owing to certain sales on credit, but now all its losses have been made up, and at the Registrar's suggestion, it has created a special Reserve Fund for extending the functions of the Society and dealing with the problems, which will arise in the post-war period. This Fund, which cannot be spent except with the permission of the Registrar stood at Rs. 50,837 on the 30th June 1944.

*Cotton sale Societies.*—The cotton sale societies in Gujerat and Karnatak continued to assist agriculturists in securing better prices for their cotton. The number of cotton sale societies organized in the East Khandesh under the Scheme for multiplication of jarilla seed and marketing of jarilla lint, increased from 8 to 15. The cost of secretarial and other staff for managing these societies continued to be borne by Government.

A similar scheme for organising cotton sale societies in West Khandesh on the lines of the scheme undertaken in East Khandesh was inaugurated and three cotton sale societies were organized during the year. Government has rendered the same assistance to these societies by way of provision of secretarial and other staff as in the case of the East Khandesh district.

*Other Sale Societies.*—An all round increase in the prices of agricultural commodities and comparative improvement in the economic position of the agriculturists have greatly helped the co-operative movement, and in spite of the restrictions on transport and on dealing in food grains, co-operative marketing fared very well during the year under report. Sale societies in the canal area like Baramati, Kopergaon and Malsiras, which mainly deal with gul, showed a tremendous increase in their working during the period under report. These societies were utilized by the Agricultural Department for sale of groundnut cake and manure at concessional rates to agriculturists in the area. The Nira Canal Purchase and Sale Society sold 1,247 tons of groundnut cakes. The supply of adequate quantities of vegetables to the military have helped the vegetable sale societies in Nasik, Nagar and Belgaum districts. The Ahmedabad Potato Growers' Association continued to show good progress. The Association imported from Simla seed potatoes of the improved variety valued at Rs. 97,227 and received a Government grant of about Rs. 1,500. It sold potatoes worth Rs. 3,33,862 and earned a commission of Rs. 11,000. The Belgaum Gardeners' Sale Society sold vegetables valued at Rs. 70,000 during the period under report. The Nandurbar Purchase and Sale Union which has been only recently started, made good progress and has opened a number of branches and depots in the Bhil area in Nandurbar taluka and Navapur Peta. Kaira District Purchase and Sale Union, which acted as agent for Government for purchase of paddy and bajri, was responsible for making purchases valued at over Rs. 10 lacs from the agriculturists.

*Agricultural Requisite and Implement Societies.*—The Shevgaon and Pathardi Societies in the Nagar district and those at Madha and Malsiras in the Sholapur district, which possess a large stock of iron ploughs and other implements, did very good work during the period under report. The Pathardi Implement Society has now extended its sphere of working and has been functioning as a sale society also.



### (3) MULTI-PURPOSE SOCIETIES, CREDIT SOCIETIES AND CENTRAL BANKS.

The number of multi-purpose societies increased from 79 to 105. This large increase was due to the need for having suitable co-operative organisations at the grain distribution centres in rural areas under the rural grain distribution scheme of Government. The existing multi-purpose societies, particularly those at minor market places, have shown a varied degree of success. The Nabipur and Haldar Multi-purpose Societies in the Broach district did useful work in the supply of pure cotton seed. The Mirajgaon Multi-purpose Society in the Nagar district sold members' produce valued at Rs. 2,625 and also supplied cloth and other domestic requirements valued at Rs. 2,615. The Vatwa Multi-purpose Society in Ahmedabad district did valuable work in the year. The purchases made by the Society amounted to Rs. 44,000 and it sold standard cloth valued at Rs. 1,987.

### (4) OTHER ACTIVITIES.

Amongst other activities undertaken by the co-operative societies in promoting rural development work, could be mentioned the work done by some agricultural societies in construction of roads, distribution of medicine chests, maintenance of libraries, running of fair price shops, etc. Kyadagi Multi-purpose Society of the North Kanara district distributed quinine pills free of cost and also helped the bee keeping industry by maintaining 22 bee-hive boxes. The Society also undertook encouragement of cane industry and assisted in repairing the roads. It also supplied fruit plants and paddy seeds. The Haliyal Multi-purpose Society distributed about 400 bags of bone meal manure. The Kallabe Rural Reconstruction Society distributed 150 fruit plants and improved paddy seed of 250 lbs. The Society is also running a village hospital. The Arge Better Farming Society is running one adult school at Shahakarbag which was attended to by about 30 adults. Three dam construction and irrigation societies in North Kanara district, which were able to irrigate about 930 acres of land, are said to have assisted in raising crops valued at Rs. 6,23,000. The work of distributing medicine chests was undertaken by rural Co-operative Societies in Nagar district and about 100 medicine chests were distributed.

### (5) GENERAL MARKETING WORK.

The Chief Marketing Officer and the staff under him continued to attend to the work relating to the establishment of regulated markets, development of co-operative marketing, grading and preparation of survey reports. The services of the Marketing Inspectors in several districts were utilised by the Collectors for the work of price control and for kindred work relating to purchase and distribution of food grains.

### (6) REGULATED MARKETS.

There has been an increasing demand for regulation of markets in several districts but owing to the limited staff at the disposal of the Director of Rural Development and also the need for watching the working of the Act in the initial stages before its large scale expansion, the pace of development has been unavoidably slow. During the period under report, 6 new markets were established under the Bombay Agricultural Produce Markets Act at Hubli, Gadag, Viramgam, Bavala, Sanand and Karad-Umbraj. Except at Karad-Umbraj where purchase and sale of groundnut was regulated, the commodity regulated in all other markets was cotton.

### (7) GRADING AND STANDARDISATION.

The work of grading and marking of cotton—1027 A.L.F. and Suyog cotton in Surat district in Gujerat and Jayawant in Karnatak was continued under the supervision of the Cotton Superintendents. As a result of this process, 26,817 bales of cotton were certified under Agmark.

Out of the seven persons authorised by the Agricultural Marketing Adviser to the Government of India for grading and marking of gul at different centres, e.g. Sankeshwar, Nipani, Kopergaon, etc., only five graded and Agmarked gul weighing 1414 Bengali maunds valued at Rs. 22,860. The policy of issue of Certificates of Authorisation to individuals has, however, been recently revised by the Government of India and it has been decided to issue authorisation certificates for grading only to co-operative producers' societies and to those who would undertake to grade at least 10,000 maunds of gul during one season.

Amongst other grading activities, the grading of Santras and Mosambis, which was continued on a large scale in Ahmednagar and Poona and to a smaller extent in Khandesh, deserves mention. During the period under report, Mosambis worth nearly Rs. 1½ lacs and Santras valued at Rs. 18,330 were graded in these districts.

The grading and marking of Alphonso mangoes was also undertaken, particularly in Surat and Ratnagiri districts. The District Rural Development Boards subsidised these activities. In Surat, fruits numbering over a lac were graded while in Ratnagiri, the total number graded was 91,131.

The grading of ghee, butter and eggs was also continued during the year, but conditions for promoting grading were not favourable on account of shortage of commodities and high prices.

### III. GRAIN DEPOTS.

The policy of Government to provide grain advances to the people in backward areas by a simple system of grain banks, worked by village Talaties or Patils was continued during the year, but there was a small modification in the lines of approach. Ordinarily all grain depots are under the control of the Revenue Department but in order to meet the needs of the areas where there are no grain depots organised by the Revenue Department and where the Commissioners have no objection to registration of the depots on a co-operative basis, Government has withdrawn the ban imposed on the registration of grain banks under Bombay Co-operative Societies Act. These grain depots formed on the co-operative model are, however, to be styled as "Co-operative Grain Stores" and not "Grain Depots".

During the period under report, grants amounting to Rs. 1,18,360 in aggregate were placed at the disposal of the Collectors of Thana, Poona and Satara and West Khandesh, Broach and Panch Mahals for opening grain depots in the areas inhabited by backward classes. A special grant of Rs. 6,000 was also placed at the disposal of the Collector of Broach and Panch Mahals for opening grain depots in Godhra taluka.

In Ratnagiri, where there are no Revenue Patils or Talaties working in the areas where the khoti system of tenure prevails, rules for management of grain depots were suitably amended to provide for appointment of Police Patil as Ex-officio Chairman of the Village Grain Depot Committee.

As in the past, the Thana district continues to lead in this type of activity. 24 new grain depots were started in the partially excluded areas of the district bringing the total number of grain depots to 194. In Kolaba, there are

146 grain depots which were responsible for distributing 14,000 maunds of paddy. The need for organising grain depots is increasingly felt in partially excluded areas and this led to a large increase in their number in West Khandesh and Broach and Panch Mahals districts.

Statement No. 5 appended to this report indicates the number of grain depots in this province as on the 30th June 1944 and the value of grain distributed by them.

After the close of the year Government passed orders approving in principle the conversion of grain depots and recently started distribution centres in the Aboriginal and Hill tribes tracts of West Khandesh and other similar areas into grain-cum-commodities depots. The ultimate aim is to have one grain-cum-commodity depot in each saza in the Aboriginal and Hill tribes tracts of the Province.

In so far as the Aboriginal and Hill tribe tracts of West Khandesh are concerned, Government has already approved conversion of 30 selected grain depots and distribution centres into grain-cum-commodities depots which would be linked up with the Nandurbar Co-operative Purchase and Sale Union and its branch at Nawaapur, so that the surplus grain of the depots would be sold and the commodities required by the depots would be obtained through the Union.

#### IV. RURAL INDUSTRIES.

In the sphere of rural industries, the work of the Industries Department consisted chiefly of experiments to devise improved appliances and training of the artisans and others in the use of these appliances. In addition, subsidies were sanctioned in some cases and other assistance was offered to the trained artisans by grant of loans for buying appliances, and marketing of the finished products. Arrangements, as usual, were made to train villagers in use of improved oil ghani designed by the Department and manufacture of glass and glass bangles on improved lines at the Village Industries Experimental Workshop, Poona. The trainees were given free instruction with the benefit of scholarships of Rs. 20 each per month and facilities of free dormitories for stay in Poona during their course of training. The rural workers, who received training at the various demonstrations, were further helped by way of loans and subsidies. During the year, 170 artisans were sanctioned grants and loans amounting to Rs. 47,404.

*Sales Depots.*—The sales depots, maintained by the Industries Department at Bombay, Surat, Belgaum and Nasik helped in the marketing of articles prepared by village artisans. The Depot at Bombay received goods on consignment basis from the District Co-operative Industrial Associations, Leather Working School, Honawar Sandalwood Workers' Co-operative Society, etc. Sales amounting to Rs. 73,500, effected by the Belgaum Sales Depot, deserve special mention.

*Co-operative Industrial Associations.*—As regards marketing of handloom products, this was done under the Government of India scheme through the agency of the District Industrial Associations. The working of these Associations was hampered by many difficulties during the period under report, but on the whole, they continued to work successfully and with one exception made good profits.

*Work of Rural Development Boards.*—Various Rural Development Boards supplemented the work of the Industries Department and took an increasing interest in making arrangements for the training of the artisans in various

types of industries and in organising the demonstration classes. The Boards also rendered financial assistance by grant of scholarships for these purposes on a varying scale. The Surat Rural Development Board, for example, spent a sum of Rs. 2,000 in organising a tanning demonstration class at Kachholi. The Kaira Rural Development Board made a grant of Rs. 200 each to Kaira Stree Mandal and Mehamadabad Jyoti Mandal for conducting sewing, knitting and embroidery classes. In Nagar, a class for women was opened to give instruction in preparing fancy articles from sisal fibre. The expenses of the class were met from the sum of Rs. 175 given by the Collector from his discretionary grant. The Nasik Rural Development Board sent 13 students from Peint Mahal to Poona for training in cane bamboo, fibre wool tufting, boot lace, pottery etc. A wool weaving training centre was also organised at a cost of Rs. 840 at Naigaon to train wool weavers in the manufacture of rugs and blankets. The Belgaum Rural Development Board gave scholarships amounting to Rs. 1,130 for getting artisan trained in glass and bangle making, pottery making, cane and bamboo works, lacquer work, wool weaving etc., at different institutions.

The rural industries, which receive concentrated attention, apart from handloom weaving, were poultry farming, bee-keeping and the coir industry.

*Bee Keeping.*—The work done to promote poultry farming has been described in Chapter II, but so far as bee-keeping is concerned, the progress has been most marked in North Kanara. The Kanara Rural Development Board undertook the scheme of extension of bee-keeping industry in collaboration with the similar scheme of the Agricultural Department in Karwar and Yellapur talukas. The Honawar Bee-Keeping Co-operative Society showed good progress. In Ratnagiri and Kolaba also, the Rural Development Boards gave assistance to the bee-keeping industry.

*Other Items.*—The coir industry also continued to make headway in Kanara. The Coir Spinning and Weaving Co-operative Society at Honawar manufactured and sold goods mostly door mats. The rural industries in Kanara have received valuable help from Mr. Kallapur, District Honorary Organiser of Co-operative Societies, who has now organised a Carpenter's and Blacksmith's Co-operative Society at Honawar for manufacturing and repairing agricultural and village industries implements within a short period of 2 months, the Society was able to manufacture articles valued at Rs. 3,400.

To encourage the use of vegetable oil for lighting purposes, the Industries Department has encouraged the manufacture of a specially suitable lamp known as "Nur Imdad" lamp. Government has authorised the Industries Department to make a free distribution of such lamps to villagers at an estimated cost of Rs. 10,000. In Surat, large number of Nur Imdad lamps were distributed throughout the district with the help of the Rural Assistants. In Nasik, since 1942, 400 such lamps have been distributed and have proved very popular and useful. The Ratnagiri Rural Development Board gave a grant of Rs. 200 to Mr. Vaidya of Dapohi for manufacture of sweet oil lanterns including petrolaxes.

## V. COMMUNICATIONS.

The responsibilities for looking after the communications in this province are primarily that of the Public Works Department, and the District Local Boards. During the period under report, these organisations carried on their work in the normal course and their activities were supplemented by the various Rural

Development Boards. In almost all districts, the Collectors, and the District Rural Development Boards encouraged propaganda amongst the villagers for effecting improvements in communications particularly by construction of and repairs to village approach roads and also gave grants for this purpose on a varying scale. The villagers in most places rendered financial assistance and supplied free labour for carrying out the work. "Better Communication Weeks", which were celebrated in a number of districts, also helped to promote this activity. The Surat, Kaira and Broach and Panch Mahals district Rural Development Boards spent particularly large sums on construction of and repairs to village roads.

## VI. IRRIGATION AND WATER SUPPLY.

The arrangements for irrigation of agricultural lands received great impetus owing to the need for growing more food crops and fodder. On a representation made by the Agricultural Department, Government has made canal water available at concession rates to irrigators for food crops production. Water charges for kharif food crops were reduced from Rs. 3 to Re. 1 per acre and for rabi crops from Rs. 5 to Rs. 3 per acre.

*Irrigation.*—The main activities under this head could briefly be summarised as under :—

In Broach, the Public Works Department constructed, repaired and investigated schemes of drainage channels in water-logged areas and of protective bunds, and considerable work was done in several talukas of the district. In the Panch Mahals, 20 irrigation works of the Special Development Programme were under progress during the period under report. These works were likely to provide facilities to the irrigators, and would when completed help the "Grow More Food Campaign".

In the Central Division, an amount of Rs. 1,75,481 was spent on construction of and repairs to "Minor Irrigation Works". In order to increase the water supply further, investigation of 14 Irrigation Works has been approved by Government.

In the Southern Division, the Commissioner, S. D., sanctioned a sum of Rs. 5,000 for maintenance and repairs to "Minor Irrigation Works", only a small part of which was utilised for the works of repairs. The Commissioner, S. D., also sanctioned a sum of Rs. 70,000 for "Minor Irrigation Works" through the agency of P. W. D., of which Rs. 57,601 were utilized by the Executive Engineers, Belgaum, Bijapur, Dharwar, Kanara and Ratnagiri districts for repairs of about 250 tanks.

*Village Water Supply.*—A subsidised scheme for the construction of new wells and improvement of old wells of the agriculturists in the dry and scarcity areas of the province has been started during this year under the supervision of the Agricultural Engineer to Government of Bombay and during the period under report, 33 applications for construction of wells and 141 for improvement of wells were approved.

The problem of village water supply received attention in almost all the districts and several village water supply works were executed through the agency of the Rural Development Boards.

The following is a synopsis of the work done in this field of activity :—

In Ahmedabad, Government sanctioned a scheme of providing water supply in the Bhal tract, comprising portions of Dholka and Dhanduka talukas and allotted a sum of Rs. 10,000 for carrying out the scheme in 1944-45. The Public Works Department was also entrusted with 7 water supply works out of which 3 were completed at a cost of Rs. 13,445. Several

other projects were surveyed with the help of grants from the Rural Development Board. In Broach and Panch Mahals, the Public Works Department carried out on behalf of the Rural Development Boards, works relating to conversion of step wells into draw wells in several talukas. In Thana, 150 projects of village water supply have been completed for Wada, Shabapur, Mokhada, Dahanu and Umbergaon talukas at a cost of Rs. 51,700.

The Commissioner, C. D., allotted a sum of Rs. 1,40,000 for village water supply works in his division but the entire amount was not utilised. In view of the increase in prices of materials required for water works, Government empowered District Local Boards to accept tenders for village water supply works up to 25 per cent. in excess of the estimated cost or even higher in some cases.

In the Southern Division, an allotment of Rs. 1,70,000 was made for expenditure on village water supply works to be executed through the agency of Rural Development Boards. Out of this amount, Rs. 84,879 were spent by P. W. D. and District Local Boards for construction of new wells and repairs of old ones and also for carrying out improvements to other minor water supply works. The progress of work in the districts of Belgaum, Bijapur, Dharwar and Ratnagiri was appreciable. In Bijapur, apart from about 45 wells dug by the P. W. D. at a cost of Rs. 86,600, several village water supply works in different talukas were constructed during the famine period at a cost of Rs. 7,50,000.

In addition to the activities of the Public Works Department, fairly substantial work was done in various districts by the Rural Development Boards.

## VII. PUBLIC HEALTH AND SANITATION.

In the sphere of public health and sanitation, various agencies e.g. the Public Health Department, the Medical Department, the Health section of the District Local Boards, Rural Development Boards and other institution interested themselves in the adoption of measures beneficial to the health of the rural population.

The following is a brief account of the activities carried out during the year:—

*Health Propaganda.*—In most districts steps were taken to carry on propaganda to promote village sanitation and rural health. Lectures were delivered by the Civil Surgeons, Health Officers, or Subsidised Medical Officers, illustrated with cinema films obtained from Bombay Presidency Baby and Health Week Association, or with magic lantern slides.

A Health Unit has been started in collaboration with the International Health Division of the Rockefeller Foundation, New York, since 1st December 1939. An area comprising 32 villages in Sirur Peta of the Poona district is served by the staff of the Unit. The staff of the Units consists of:—

- 1 Medical Officer of Health.
- 1 Lady Doctor.
- 4 Sanitary Inspectors.
- 8 Midwives.
- 1 Clerk.
- 1 Peon.
- 4 Orderlies.
- 4 Health visitors.

The intention in starting the Unit is to do concentrated health work in a compact area to serve as a model to Public Health workers.

The Bombay Mofussil Maternity, Child Welfare and Health Council has, in the past, been subsidizing various welfare centres in the province and lately it has itself opened in rural areas elaborate welfare units. The first unit of this kind was started in 1942 at Chakan in Poona district with a Lady Medical Officer, Health Visitor, 2 Midwives and one Certified Senior Dai. The unit contains various sections like Maternity Home, out-patient departments, Ante-natal and Post-natal departments, Infant and Child Welfare Centres, etc. The activities of the unit, during the period under report, consisted of carrying out anti-plague vaccination, anti-cholera inoculations, propoganda against opium-drugging of infants and lectures and demonstrations on infecticous diseases and nutrition. Twelve maternity cases were conducted at the Maternity Home of the unit and sewing classes were also started for mothers.

After the close of the year, the Council started a similar unit at Bhilwali with a centre at Walva in Satara district, for which Government gave a grant of Rs. 50,000.

In Bijapur, the Health Officer of the Public Health Department carried out extensive relief measures and epidemic preventive measures which were largely responsible for keeping the incidence of death statistics low in spite of the severe famine conditions prevailing in the district in 1943.

*Preventive Measures against Epidemics.*—Both the Public Health and the Medical departments received considerable assistance from the Local Boards and Rural Development Boards in taking prophylactic measures against epidemics. The work under this head consisted mainly of supplying quinine for malaria vaccination and revaccination against small-pox, inoculation against cholera and plague, and disinfection of wells and water supply. This work was carried on in a varying degree in all districts, but the work done in Dharwar and Sholapur calls for special mention. In Dharwar, where cholera spread to 109 villages of 6 talukas, the Epidemic Officer of the Public Health Department helped to bring it under control by carrying out systematic disinfection of soiled clothes, etc. In Sholapur, plague broke out in certain villages of Madha, Pandharpur and Barsi talukas. To check its spread, inoculation, fumigation with cynogasing and disinfection by kerosene oil soap emulsion were carried out on a large scale. In Kanara, the upghat talukas were got surveyed for preventive measures against malaria by the All India Malaria Institute.

*Child Welfare.*—Problems relating to promotion of child welfare received increased attention in almost all the districts of the province. The Public Health Department paid the annual grant of Rs. 5,000 to the Bombay Presidency Baby and Health Week Association to carry on public health propoganda and made handsome grants to various voluntary associations such as the Bombay Mofussil Maternity, Child Welfare and Health Council and the Bombay Presidency Infant Welfare Society for doing valuable work in this direction. The department also appointed Health Visitors in Ahmednagar, Sholapur and Khandesh for carrying on propoganda against the administration of opium to children.

The Rural Development Boards also assisted in the work by making grants.

In the Sirur Peta of Poona district, 4 new maternity and child welfare centres and a day creche for the children of working mothers were opened with the help of villagers.

In Bijapur, the Health Officer of the Public Health Department assisted by Epidemic Medical Officers carried out a nutrition survey of more than 50,000 children from 72 schools of 43 villages. Advice on diet was given.

*Training of Dais.*—The training of Dais under the rural medical relief scheme was carried on vigorously in the Kaira district where 8 nurse midwives were appointed at various medical dispensaries.

In Thana, a new scheme was introduced under which every cottage hospital is provided with a trained Dai to assist the Medical Officer in his work.

*Table Dispensaries and Medicine Chests.*—The Thana district continued to pay special attention to the question of providing medical relief in rural areas. Arrangements for taking indoor patients were made at 11 Allopathic Centres where there is a Medical Officer in charge of each centre assisted by a trained Dai. In addition, there were 50 table dispensaries which received supplies of Ayurvedic medicines worth Rs. 2,500 from the Rural Development Board. All these dispensaries are working satisfactorily and rendered useful assistance to the villagers. These dispensaries are in charge of primary school teachers who have been trained by the Civil Surgeon, Thana.

The subsidised dispensaries in Bijapur, numbering 15 treated 1,89,293 patients during the year. The Collector granted a sum of Rs. 400 out of his discretionary grant to the village dispensaries at Kamatgi and Chadchan run by private medical practitioners for supply of medicines and purchase of surgical instruments.

As in the past, in many districts medical relief was provided in those areas where there were no qualified practitioners, by supply of small medicine chests containing standard medicines like quinine, boric-acid, tincture of iodine etc. Many Rural Development Boards made handsome grants for supply of these medicine chests and maintenance of table dispensaries.

*Other Activities.*—Special mention deserves to be made of the research work on the incidence of malaria and causes of and measures against malaria and guinea-worms conducted by Prof. P. W. Gideon of the Biological Department of the Karnatak College, Dharwar. A pilot survey of some villages of Bankapur taluka was made to investigate the effect of malaria on the dwindling of population. Similarly, investigations were carried out in Masur village of Kod taluka into examination of all spots likely to breed mosquitoes and for taking steps in the draining, oiling and stocking with larvivorous fish of all breeding places of malarial mosquitoes. The Dharwar Rural Development Board gave a grant of Rs. 2,100 for this purpose.

## VIII. EDUCATION.

### (1) ERADICATION OF ILLITERACY.

*Primary Education.*—The problem of primary education in rural areas continues to be tackled through the establishment of schools by local authorities in villages with a population of over 700 and by encouraging private enterprise to open voluntary schools in villages with a population of less than 700. The schools under the latter category are entitled, under recent orders of Government, to receive a maximum grant of Rs. 350 direct from Government. The number of primary schools recorded an increase of 620 during the year ended 31st March 1944, bringing the total to 13,250, of which the number of voluntary schools in villages with a population of less than 700 was 5,375.



Some of the Rural Development Boards encouraged primary education by payment of handsome grants to the schools.

*Adult Education Classes.*—Another direction in which attempts are being continued to reduce illiteracy in villages is by encouraging adult education. Unfortunately, owing to the difficulties in obtaining adequate supplies of kerosene for night work, the progress of the scheme was considerably impeded, but in spite of this handicap, 520 classes were maintained and were attended by over 13,000 adults. These classes received over Rs. 30,000 in grant from Government. In addition, about 115 teachers and workers of adult schools were trained at 3 centres at a cost of Rs. 2,500.

The Rural Development Boards at Dharwar, Kanara, Satara and West Khandesh sanctioned small grants to assist adult education.

(ii) *Provision for school buildings and play grounds.*—The building activities, which are under the guidance of the District Building Committees (with Divisional Educational Inspectors as Chairmen), have also unfortunately received a setback during the last 2 years owing to the difficulties in obtaining building materials and the rise in prices. These activities, however, are not entirely at a standstill and during the year, over 120 buildings were under construction.

(iii) *Village Libraries.*—Under the Post-literacy scheme, introduced in the year 1941-42, 300 new libraries were registered, bringing the total number of village libraries under the scheme to 1,500. In addition to the initial grant ranging from Rs. 30 to Rs. 50 for purchases of equipment, these libraries receive an annual subsidy of Rs. 10 each. The libraries receive news-sheets and other reading materials published by the Adult Education Committee. Special subsidies are also given to certain papers which publish suitable material for the new literates.

In the Panchmahals, the Rural Development Board financed a scheme of touring village libraries. Under the scheme, 32 centres received books which are transferred from one centre to another at an interval of 3 months.

The village libraries and reading rooms received grants on a varying scale from Dharwar, Bijapur, Kanara, Panchmahals, Ahmedabad, Satara, Ahmednagar and Kaira District Rural Development Boards, while the Belgaum Rural Development Board gave a sum of Rs. 200 for a library building in the district.

(iv) *Physical Training.*—Physical instruction now forms an integral part of general education and arrangements for physical training and games were made in all the primary schools. Of the total number of 13,250 primary schools, 3,800 maintained play grounds and over 7,500 stocked adequate physical apparatus. The Educational Department made a grant of Rs. 30,000 to the Local Authorities for meeting expenditure on physical education. During the year, the Educational Department held short term courses in physical education at various centres for the benefit of primary teachers. In addition, arrangements were made by a number of local authorities for medical examination of children attending the primary schools through the medical officers of the subsidised local bodies' dispensaries.

## IX. GENERAL PROPAGANDA.

*Grow more food Campaign.*—The period under report was characterised by the strenuous efforts which were continued to be made by the Agricultural Department, the Revenue Department, the Co-operative Department, Rural Development Staff and other agencies in intensifying the "Grow More Food" campaign.

In the organization and conduct of the campaign, numerous village meetings were arranged in all parts of the province to impress upon the agriculturists the necessity for increased crop production and to bring directly to their notice, the concessions and facilities, which Government had made available to encourage the cultivation of the food crops. In all 15,573 such meetings were held during the year 2,426 in the Northern Division, 5,272 in the Central Division, 6,069 in the Southern Division and 1,806 in the Konkan. In addition to the large number of meetings, a number of leaflets and striking pictorial posters were issued and over 20 ballad singers and non-official agents were employed to help in the work. The campaign was a great success but it was found that in spite of intensive propaganda, in some areas there was still some scope for increased replacement of non-food crops i.e. cotton, tobacco, etc. by food crops. It was felt that propaganda work in this direction had reached the limit of its achievement and legislation would be essential to bring about further reduction in non-food crops. A "Growth of Food Crops Act" has been promulgated on the 29th April 1944 to achieve this object.

*Shows, publications, Demonstrations, Classes, etc.*—In addition to the special measures taken to popularise the "Grow More Food" campaign, the propaganda in favour of adoption of improved methods of agriculture was carried on, on a vigorous scale. Steps were taken in almost all districts to organise demonstrations, agricultural shows, village improvement weeks, lantern lectures, cinema shows, etc. Jamabandi Darbars were also taken advantage of for explaining the advantages of using improved varieties of seeds, implements, manures, to the agriculturists and Taluka Demonstration Centres were also utilised for holding demonstrations in the cultural methods of crops, use of pedigree seeds, and improved implements. Officers of the various departments also utilised their tours in giving lectures on various subjects.

Agricultural and Cattle shows were organised in the districts of Ahmedabad, Kaira, Thana, Poona, Nagar, Nasik, East Khandesh, Satara and Dharwar. The shows at Ahmedabad, Kaira and Nasik were opened by His Excellency the Governor of Bombay and the District Agricultural Show at Satara was opened by the Adviser (Finance) to the Governor of Bombay. All these shows were largely attended and proved a great success. Lectures on subjects bearing on fruit and vegetables, different varieties of grain, hand-crafts of ladies, crop exhibits, industrial projects, cattle, land development, cottage industries, etc., were delivered by officers of different departments.

"Farmers' Weeks" were a noteworthy feature of the propaganda activities in the districts of Surat, Broach and Panchmahals, Nagar, West Khandesh and Belgaum and attracted a large number of visitors.

*Village Uplift Vans.*—The Village Uplift Vans continued to tour in almost all districts and proved an effective medium for carrying on propaganda in favour of village improvement activities. Officers of the various departments co-operated in giving lectures on various subjects during the itineraries of the van.

*Village Film Scheme.*—The village film scheme was in operation in all the districts. The cinema operators stationed in the districts carried out demonstrations on various subjects such as hygiene, sanitation, education, agriculture, etc. The scheme has proved successful in attracting the masses as it combines instruction with amusement.

**Rural Broadcasting Scheme.**—An interesting feature of the period under report was the inauguration of the rural radio scheme in this province. The scheme came into operation on the 17th April 1944 and will form an integral part of the plans for rural development. Government of India has made available about 800 radio sets of which over 100 have already been installed in Thana, Bombay Suburban, Nasik and Kolaba districts. The radio service is intended to keep the villagers in touch with the latest ideas in agriculture and similar occupations, keep them informed of what Government is doing in all matters affecting their daily life. The villagers will also have latest news about the war and happenings in Bombay city and other parts of India and would also have a daily programme of entertainment to brighten their leisure after the day's work is finished.

A daily programme lasting 35 minutes and containing market rates, news, talks of rural interest and of entertainment are given every day between 7-30 p.m. and 8-5 p.m. When the installation of all sets is complete, daily broadcasting lasting an hour in each of the regional languages is proposed to be taken up.

#### X. TRAINING CENTRES FOR RURAL ASSISTANTS.

The Scheme for training of Rural Assistants for propaganda and rural development work, sanctioned under Government Resolution, Revenue Department, No. 15/33, dated the 8th March 1939, was terminated with effect from the 30th April 1944 and the four official centres at Broach, Dhulia, Devihosur and Manjri as well as one non-official centre at Bordi were closed. The arrangements, under which the Rajapur Centre supplied 10 trained students each year for employment as Rural Assistants, however, continue as these boys undergo agricultural course at the school for 2 years before selection for the Rural Assistants' course and they can after little more tuition be usefully employed in the Agricultural Department.

During the period under report, 158 candidates received training at the various centres. On completion of the training, 64 were allotted to the Agricultural Department, 43 to the Co-operative Department and the remaining 51 were utilised for the Revenue Department—26 for the Rural Development Boards and 25 Village Panchayats.

#### FINANCE.

Statement No. 1 appended to the report shows the expenditure incurred on rural development during the period under report. These figures, however, relate to the work carried on by or with the assistance of the Rural Development Boards and do not indicate the expenditure incurred by various autonomous departments on their work in rural areas.

(Signed) S. M. IKRAM,  
Registrar, Co-operative Societies,  
& Director of Rural Development  
Bombay Province, Poona.

## STATEMENT No. 1.

*Expenditure on Rural Development during the year 1943-44.*

		Rs. a. p.		Rs. a. p.	
General Administration—					
W.—1—Rural Development staff—					
(1)	Pay of Establishment	1,61,195	6 0		
(2)	Allowances and Honoraria	69,200	12 0		
(3)	Contingencies	20,583	5 0		
				2,50,979	7
Discretionary grants to Collectors for Rural Development		1,56,469	7 9		
District Rural Development Boards—					
(1)	Pay of Establishment	36,203	5 0		
(2)	Allowances and Honoraria	12,925	0 0		
(3)	Contingencies	7,000	7 3		
				56,128	12 3
Prizes in connection with Village improvement Scheme		18,000	0 0		
Economic development and improvement of rural areas (Government of India Grant)		26,582	13 0		
Special Development Programme—		2,25,862	4 9		
Agriculture—				7,31,022	12 9
Grant-in-aid, contributions—					
(a)	Subsidies to Taluka Development Associations	53,991	0 0		
(b)	Cotton Seed Distribution Scheme	1,26,928	0 0		
Agricultural Demonstration and propaganda, etc.—					
(1)	Taluka Demonstration Centres	558	0 0		
(2)	Seed Multiplication and Distribution	6,970	0 0		
(3)	Cotton Transport Check Stations				
Special Development Programme—					
(a)	Training of Rural Assistants	1,05,451	0 0		
(b)	Bunding and Dry Farming Survey Scheme	9,52,291	0 0		
(c)	New Additional Taluka Demonstration Centres	1,13,854	0 0		
Co-operation—				13,60,043	0 0
Grant-in-aid—					
(1)	Grant-in-aid to Co-operative Marketing Co-operative Production and Better Farming Societies.	18,600	0 0		
(2)	Grant-in-aid to Multi-purpose Societies	3,930	0 0		
(3)	Grant-in-aid to Local Bodies Cotton Market Committees				
Scheme for improvement of Agricultural Marketing in India—					
(1)	Pay of Officers	11,387	0 0		
(2)	Pay of Establishment	4,973	0 0		
(3)	Allowances and Honoraria	7,263	0 0		
(4)	Contingencies	1,993	0 0		
				48,146	0 0
Grant Total				21,42,222	12 9

## STATEMENT No. 2.

Subject.—*Distribution of Manures.*

Serial No.	Name of the District.	Total amount spent by District Rural Development Boards, other societies and Taluka Development Associations for supplying manure.		Main kinds of manure supplied.
		Quantity.	Amount.	
			Rs. a. p.	
1	Ahmedabad ...	3,844,920	.....	Sann-seed, Amonium Sulphate.
2	Kaira ...	3,584,120	.....	Groundnut cake, Bone-meal, Sann-seed.
3	Surat ....	1,083,800	.....	Groundnut cake, Bone-meal, Fish manure, Sann-seed.
4	Broach and Panch Mahals.	114,800	.....	Oil-cake and Groundnut cake.
5	Thana ...	6,525,120	.....	Groundnut cake.
6	Bombay Suburban District.	247,000	.....	Sulphate of Amonia, Oil cakes, Groundnut cake, Castor cake, Pits, etc.
7	Poona ...	15,761,678	.....	Groundnut cake, Castor cake, Sulphate of Amonia, Sann-seed, Red-label Mixture and other manures.
8	Ahmednagar ...	260,551	.....	Sulphate of Amonia, Oil cakes, Groundnut cakes, Castor cakes, Sann-seed, Bone-meal, Pits, Compost.
9	Satara ...	2,455,649	66,923 0 0	Groundnut oil cake, Sann-seed and Bone meal.
10	Sholapur ...	13,581,200	.....	Sulphate of Amonia, Oil cakes, Groundnut-cakes, Castor cakes, Sann-seed, Bone meal, Pits, Compost.
11	Nasik ...	22,983,008	.....	Groundnut cake.
12	East Khandesh ...	7,425	.....	Groundnut cake, Sulphate of Amonia, Bone meal, Red-label Mixture, Sann-seed.
13	West Khandesh ...	.....	5,622 15 9	Groundnut cake, Sulphate of Amonia, Bone meal, Sun-Brand Mixture, Sann-seed, Red-label Mixture.
14	Dharwar ...	914,720	.....	Sulphate of Amonia, Oil cakes, Groundnut cakes, Castor cakes, Sann-seed, Pits, Compost.
15	Belgaum ...	5,133,100	.....	Sulphate of Amonia, Oil cakes, Groundnut cakes, Castor cakes, Bone-meal, Compost, Karaj cakes and Fish Manure.
16	Bijapur ...	250 lbs. 200 pits.	.....	Sulphate of Amonia, Oil cakes, Groundnut cakes, Castor cakes and Compost.
17	North Kanara ...	4,588,168	.....	Sulphate of Amonia, Bone-meal, Pits, Red-label Mixture, Denatured Salt and Fish Manure.
18	Kolaba ...	14,806	904 14 0	Groundnut cake.
19	Ratnagiri ...	3,588,168	.....	Denatured Salt, Groundnut cake, Bone-meal.

STATEMENT No. 3.

Subject.—SEED DISTRIBUTION WORK.

Serial No.	Name of the District.	Benilla Cotton and other cotton varieties.	Jarilla cotton.	Akala Bajri and other varieties.	Wheat of different varieties.	1027 A. L. F. cotton.	Groundnut of different varieties.	Sugar-cane.	Jowar of different varieties.	Rice of different varieties.	Other seeds.
1	2	3	4	5	6	7	8	9	10	11	12
1	Ahmedabad	.....	.....	24,163	22,750	...	.....	.....	2,62,180	.....	6,37,155
2	Kaira	.....	.....	50,801	1,57,209	40,799	.....	.....	8,12,220	11,985	41,449
3	Surat	.....	.....	.....	1,56,257	...	.....	.....	13,745	.....	75,041
4	Broach and Panch-Mahals.	.....	.....	.....	1,12,635	...	.....	.....	56,116	45,670	2,87,311
5	Tbana	.....	.....	.....	600	...	10	.....	.....	1,06,372	1,540
6	Bombay District.	Suburban	.....	.....	150	...	.....	.....	.....	11,640	27,240
7	Poona	.....	.....	1,58,700	1,84,500	.....	.....	.....	4,29,120	95,000	3,12,240
8	Ahmednagar	.....	230	98,296	1,93,027	...	2,325	160	1,19,528	19,500	41,441
9	Satara	.....	.....	43,801	57,327	...	1,500	1,67,500	90,128	30,665	10,85,814
10	East Khandesh	.....	50,04,250	72,225	1,81,109	.....	.....	.....	11,250	.....	.....
11	West Khandesh	.....	3,59,343	1,43,650	3,09,084	62,440	1,70,200	2,40,240	1,16,764	4,21,625	51,165
12	Sholapur	.....	12,939	4,725	1,68,750	.....	.....	.....	15,65,800	4,848	.....
13	Nasik	.....	2,64,320	9,06,775	2,09,875	.....	.....	.....	53,490	400	4,95,855
14	Dharwar	.....	37,30,860	20,25,720	.....	.....	5,481	1,44,400	4,531	1,95,920	2,63,340
15	Balgaum	.....	2,500	9,500	.....	.....	45,000	.....	23,550	89,400	60,050
16	Bijapur	.....	11,719	.....	2,51,567	15,80,632	.....	.....	7,66,792	1,500	5,07,571
17	North Kanara	.....	.....	.....	.....	.....	.....	2,75,000	.....	9,43,920	(Rs. 5,500)
18	Kolaba	.....	.....	.....	.....	.....	.....	.....	.....	.....	78,560
19	Ratnagiri	.....	.....	.....	.....	.....	.....	.....	.....	4,96,920	.....

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## STATEMENT No. 4.

Subject.—Land Development.

Serial No.	Name of the District	Length of Bunds constructed during the year (in feet).	Area of Lands protected by bunds (in acres).
1	Ahmedabad	90	50
2	Kaira	Nil	Nil
3	Surat	Nil	Nil
4	Broach and Panch Mahals	5	4
5	Thana	Nil	Nil
6	Bombay Suburban District	1,790	11½
7	Poona	304,752	1,949½
8	Ahmednagar	669,500	5,702
9	Satara	2,358,72	19,056½
10	Sholapur	640,600	6,400
11	Nasik	2,402	6,200
12	East Khandesh	367,525	7,682½
13	West Khandesh	328,057	6,651½
14	Dharwar	.....	1,407½
15	Belgaum	619,586	6,099
16	North Kanara	Nil	Nil
17	Kolaba	Nil	Nil
18	Ratnagiri	.....	4½
19	Bijapur	.....	.....

## STATEMENT No. 5.

Serial No.	Name of the District.	Grain Depots.	Value of grains distributed.	Quantity of grains distributed.
1	Ahmedabad	1	Rs. 1,000	
2	Thana	194	1,12,552	
3	Broach and Panch Mahals	67	.....	
4	Bombay Suburban District	5	5,975	
5	Surat	18	12,071	
6	North Kanara	17	22,000	
7	Bijapur	6	.....	4,000 maunds.
8	Belgaum	19	.....	
9	Kolaba	146	.....	14,000 do.
10	Ratnagiri	29	.....	8,000 do.
11	Poona	3	44,266	
12	West Khandesh	62	41,503	
13	Nagar	4	10,000	
14	Nasik	24	60,000	
15	East Khandesh	11	.....	
16	Satara	3	.....	
		609	3,10,067	

(Sholapur, Kaira and Dharwar—Nil).