FOOD CROPS OF GUJARAT,

Do The Director, The Cokhle Instituté of Polities Economies, Poong

COITA BOST Compliments of the PEOPLE'S PROVINCIAL FOOD COUNCIL, BOMBAY.

VORA & CO. (PUBLISHERS) LTD.,
3. Round Building, Bombay-

FOREWORD |

The People's Provincial Food Council, Bombay, was started about two-and-a-half years ago mainly with a view to securing the redress of the people's grievances regarding food procurement and distribution. Thanks to the co-operation both of the people of the province and of the Bombay Government, the Council has been able to do some good work in its brief existence. Conditions in the province have now greatly changed. Procurement and distribution operations have been systematised. The future scope, therefore, for the Council's work in the original direction is limited. On the other hand the problem of production of sufficient foodgrains and other foods to feed India's millions in such a way as to sustain them at fair level of efficiency has now become very pressing. The Executive Committee of the Council has therefore decided to convert the Council into a permanent body dealing specially with the problems of growing more food and of nutrition in the Province. The consequent organisational and other changes in the Council are being carried out.

The Council has been very fortunate immediately after this decision was taken to get a very interesting study on "Grow More Food" campaign in British Gujarat, prepared by the Agricultural Economics Section of the University School of Economics and Sociology. This pamphlet points out in a very succinct way the limitations of the "Grow More Food" campaign as conducted by Government and tries to analyse the difficulties of this campaign.

Our great thanks are due to the Agricultural Economics Section of the University School of Economics and Sociology whose co-operation has made it possible for us to publish this pamphlet and to launch on our new work. We hope that it will be possible for us to forge even closer links between the People's Provincial Food Council and the Agricultural Economics Section of the University School of Economics and Sociology, which has been formed mainly with a view to encouraging the study of the agricultural and rural problems of the Bombay Province.

MANILAL B. NANAVATI,

Chairman,

Bombay, 25-2-1947.

. People's Provincial Food Council.

PREFACE

. This small pamphlet attempts to present the results of an inquiry into the working of the Growth of Food Crops Act, 1944 and other efforts of the Government of Bombay to increase the production of foodcrops in the Province. It is a very modest effort, the first undertaken by the newly created Agricultural Economics Section in the Department of Economics of the Bombay University School of Economics and Sociology.

Mr. C. H. Shah, our Investigator for Gujarat, has done much of the spadework and Dr. M. B. Desai, Lecturer in Agricultural Economics, has given the brochure its present shape.

Statistics are difficult to obtain and Government Departments, as much as the lay public, look with suspicion on anyone who tries to pry into their business. But even this little work would have been impossible without the assistance of Government Departments. We thank all the officers who have helped us in our attempt.

We are grateful to the People's Provincial Food Council, Bombay, for publishing this pamphlet.

School of Economics and Sociology, University of Bombay, Bombay, 25-2-47. M. L. DANTWALA

FOOD

PRODUCTION AND REQUIREMENT:

In the matter of food, Bombay is a deficit Province. A province is considered deficit, if in normal times it had to supplement its own production of foodcrops with imports either from other provinces or from abroad. In pre-war years, Bombay imported on an average 7,11,000 tons of foodgrains annually. Figures of imports of foodgrains are available only for different "trade blocks":—

Net Imports of Foodgrains in Bombay 'Trade Block'

		19	37-38 to 1939-40. ('000 tons)
Wheat			210
Rice		٠.	446
Jowar and Bajra	••	• •	55
	Total		711

Before the War the Province produced (average of 1935-36 to 1939-40) 3.4 million tons of cereals. Deducting 12½ per cent. of the production for seeds, wastage, etc., Bombay's average production of cereals available for consumption came to 2.55 million tons. According to the 1941 Census, the population of the Province was 20.8 millions. This gives us 16.64 million adult units. At the rate of 1 lb. per adult unit, the Province grew food enough only for 15.6 million adult units. Thus, broadly speaking, on the eve of the War, there was no food grown in the Province for nearly 1.3 million or 6.5 per cent. of its population.

In British Gujarat—which includes the five districts of Surat, Broach, Kaira, Ahmedabad and the Panchmahals—the deficit was proportionally much bigger.

Region	Po	pulation	Area under food crops (cereals and pulses)	Outturn of food crops
		(as % of	pulses) f the whole prov 12	vince)
Gujarat		20	12	12
Deccan	• • •	40	55.6	50
Karnatak		17	24	24
Konkan	••	17.5	8.4	14
		94.5	100*	100†

^{*} Excludes population of Bombay city.

[†] Figures of area and output relate to 1939-40.

Thus within the province itself, Gujarat's shortage of food supply is likely to be much greater than that of any other region. The reason is not far to seek. Like its merchants, the farmers of Gujarat prefer commerce to food. During the last 40 years, Gujarat has undergone a continuous commercialization of its agriculture. Between 1900-1940, 19,92,519 more acres of land were brought under cultivation. But out of these only 5,22,141 acres went for the cultivation of food-crops, the bulk of the remaining being devoted to cotton, tobacco and oilseeds.

Cultivation in Gujarat between 1900-1940

Year .		Food crops (acres)	Cotton (acres)	Tobacco (acres)	Oil-seeds (acres)
1900-1901	• •	2,007,986	369,078	25,735	110,693
1910-1911	• •	2,184,322	820,875	31,926	145,747
1920-1921	••	1,912,219	1,012,321	45,354	135,151
1930-1931	••	2,545,095	927,305	55,345	227,541
1939-1940		2,324,188	1,011,102	98,876	285,570
% increase between 1900-1940		. 111	266	384	258

On a further scrutiny we find that the districts of Surat and Kaira do not show proportionate increase in food crops compared to other crops. Surat and to a lesser extent Broach were allured by cotton, while Kaira took to tobacco. Between the quinquennia ending 1901 and 1940 Surat added 2,93,676 acres of cultivated land, 1,34,239 or 44.9 per cent. of this was devoted to cotton; the cultivation of food crops actually declined by 84,072 acres. In Kaira during the same period 2,12,933 more acres came under cultivation; 25.2 per cent of these were devoted to tobacco. The area under food crops went down by 1,05,601 acres. During the period under review areas under cotton, tobacco and oilseeds in Gujarat increased by 166,284 and 158 per cent respectively, while that under food crops rose by 11 per cent only. The decline in the area under food crops

per head in different districts between 1900-1940 is seen in the table below.

•	190)1	1941				
District	Popula- tion	Area under	Popula- tion.	Area under	Per car		
		food crops	•	food crops	area under food crops (acres)		
		(acres)		(cereals			
	-			and pulses) (acres)	1901	1941	
Ahmedabad	7,95,967	6,71,534	13,72,171	9,71,279	.84	.71	
Broach	2,91,763	1,84,243)		٥.		
Panch Mahals	2,61,020	2,86,311	9,24,527	7,06,384	.85	.77	
Kaira	7,16,332	5,11,837	9,14,957	5,29,121	.71	.58	
Surat	6,37,017	3,50,061	8,81,058	3,23,343	.55	.37	
Br. Gujarat	27,02,099	20,07,986	40,92,713	25,30,127	.74	.62	

No wonder when the food crisis developed in India and imports from outside areas became difficult, Gujarat was faced with an unenviable situation. An attempt is made below to show what happened to its food economy during the war.

"Grow More Food" Drive

VOLUNTARY EFFORT:

We saw that Gujarat is a deficit food producing region. We also found that the trend towards commercialization of agriculture on the one hand and the progressive increase in population on the other added to this deficit with the passage of time. During normal times this gap between total foodgrains requirements of the population of Gujarat and actual production used to be met by imports from other regions in the country as well as from overseas. With the outbreak of the hostilities in 1939 and particularly after the entry of Japan into the war in 1942, foreign supplies were cut off and internal movements became difficult due to pressure on transport. As a result of these developments the country was confronted with a first rate problem of devising ways and means of procuring enough food to feed its population. The situation was made more difficult by the need of feeding the large number of troops that were stationed in the country. The responsibility of finding enough food for the people devolved primarily on the Provincial Governments, as the Central Government limited their activities to evening out the surpluses and deficits of food in different regions and to equitably distributing the available imports among the units. Both to make the work of the Centre easy and to lend strength to the case for allotments

to the provinces from the stocks acquired from surplus foodgrains producing provinces and imports, the provincial administrations were advised to adopt measures to increase as much as possible the production of food grains in their respective areas. As a part of the All-India policy, the Government of Bombay launched their "Grow More Food" campaign in 1942. All possible methods of persuasion were employed to bring home to the agriculturist the gravity of the food problem and to induce him to devote as large a part of his holding as possible towards raising food crops. Cotton is by far the most important commercial crop in Bombay as also in Gujarat. The Continental countries and Japan which were the main customers of the Indian variety of cotton were now enemy countries and could no longer absorb our crop. dangers of the disappearance of the market for a substantial portion of their cotton crop and other non-food crops were brought home to the farmers and they were advised to reduce their cultivation, particularly of the short staple cotton, to the minimum. Farmers were also asked to bring all the wastes and as much of grasslands as possible under the plough. In order to lend vigour to the campaign and to ensure intensive exploitation of agricultural resources with a view to producing as large a quantity of food as possible, Government arranged to supply seeds and oil cake manures to the farmers at concessional rates. Measures were taken to improve the irrigation facilities available to the farmers and to supply water from Government canals to lands raising food crops at reduced rates. Revenue free grants of waste lands under Government management were made to farmers who would grow food crops on them. The Government's voluntary effort was pursued during the years 1942 to 1944 and it was claimed that although the outcome was not phenomenal, it was not barren of results. It will be instructive to examine the success of the campaign with particular reference to British Gujarat. The table below summarizes the net cropped area and fallow lands in the five districts of Gujarat during the years 1942-43 and 1943-44. The quinquennial averages of acreages under the two heads for the years 1935-36 to 1939-40 are also given for the sake of comparison.

Period				Net	(000 acres) Fallows
				cropped	1.4110.42
				area	
Average,				•	
1935-36 to	1939-4	40		44,02	4,30
1941-42				44,80	3,55
1942-43		• •		45,22	3,43
1943-44	• •	• •	• •	45,50	3,06

Similar figures relating to the districts are given below.

							(000. acı	res)
District	Average, 1935-36 to 1939-40		1941-42		1942-43		1943-44	
	Net crop- ped area.	Fal- lows.	Net crop- ped area.	Fai- lows.	Net crop- ped area.	Fal- lows,	Net crop- ped area.	Fal- lows
Ahmedabad	15,98	2,85	16,49	2,34	16,55	2,31	16,85	2,88
Kaira	8,37	24	8,50	14	8,49	15	8,53	13
Broach and Panch Mahals	11,98	1,01	12,20	76	12,51	72	12,41	74
Surat	7,69	21	7,60	31	7,67	25	7,70	21

These figures indicate that in 1941-42, the net area under the plough was slightly higher by about 1.7 per cent. than the pre-war quinquennial average. This, however, cannot be attributed to factors created by the war as upto the year under discussion the impact on the economy of the country arising out of the changed situation may be said to be negligible. cropped area in 1943-44 was higher by 70,000 acres than that in 1941-42. The current fallows declined from 3,55,000 acres to 3,06,000 acres during the same period. What little addition has been made to cultivated area has been more or less evenly distributed in all the districts. The favourable monsoons during these years may partly account for this. The figures of the areas under food and non-food crops will be examined a little later in order to assess correctly the achievements of the "Grow More Food" campaign, but these figures will broadly bring out that in so far as extension of cultivation was concerned the position had not improved much. Another fact that emerges from these figures is that the increase in the net cultivated area and the fall in current fallows are more or less balanced indicating thereby that the exploitation of virgin lands for the purpose was not undertaken to any appreciable extent. It should also be added that the scope for such a development in Gujarat is not unlimited, if not altogether absent. This leads us to the discussion of the Government's efforts to induce farmers to add to the cultivated area by the allotment of the public waste lands for the purpose. The figures below relate to the forests and culturable waste lands brought under the plough in British Gujarat in the years mentioned against them.

Year	,			Forests and vaste lands (acres)
1938-39				7,000
1941-42	• •	• • •	• •	4,000
1942-43		• •		35,000
1943-44	• •	, .		14,000
1944-45		• •		20,000

The table indicates that during the first year of the campaign an appreciable area of forest and waste lands was cultivated. In the year subsequent to 1942-43, however, there was a considerable decline. A slight recovery again was recorded in 1944-45. The contrast brought out by the figures for the years 1942-43 and 1943-44 may indicate that most of these lands that might have been cultivated as a result of Government inducement turned out to be unprofitable for cultivation. Thus, on the whole, the results achieved are not very impressive.

To judge how far the campaign succeeded in making agriculture intensive, it is necessary to examine the figures of double cropped and irrigated lands. The figures of areas on which more than one crop are raised in the year are given below.

	Average, 1941-42 1935-36 to 1939-40	1942-43	1943-44	(000 acres) 1944-45
Ahmedabad	16 9	18	16	25
Kaira	19 . 13	35	28	29
Broach and Panch Mahals	68 62	69	78	1,15
Surat	54 3	56	66	67
Br. Gujarat	1,57 87	1,78	1,89	2,36

In Gujarat approximately 96 per cent. of the agricultural lands are unirrigated. It is not possible to raise a second crop over these areas except in parts of the Panch Mahals and Ahmedabad where a second irrigated crop of wheat or maize is reaped. Elsewhere a second crop is a possibility on rice beds only, provided there is sufficient rain towards the closing phase of the

monsoon to facilitate their cultivation for a second time. This is the main reason why area under double-cropping fluctuates widely from year to year. During the years 1940 to 1946, the region received enough rainfall. Therefore, one is inclined to attribute a steady increase in the double cropped area from year to year to this factor rather than regard it as an outcome of the Government's "Grow More Food" campaign.

Farmers were also offered a subsidy of Rs. 15 per every acre on which a second food crop was raised in the summer of 1946. Seeds of crops which would mature before the monsoon were distributed at concessional rates. It was estimated that about 8,484 acres were sown with bajri, maize, jowar, cheno and other irrigated food crops throughout Gujarat under the scheme and the total foodgrains production was estimated at 40,601 Bengal maunds. One of the reasons why good results could not be achieved under the scheme was that the seeds supplied, particularly in Surat, did not yield the crops before the monsoon set in with the result that they only produced fodder for the cattle.

The following are the statistics of areas under irrigation farming in Gujarat for the years 1941-42 to 1944-45 along with the quinquennial averages for the years 1935-36 to 1939-40.

					(Figure	es in acres)
Region		Average, 1935-36 to 1939-40	1941-42	1942-43	1943-44	1944-45
Ahmedabad		62,320	67,451	82,905	73,400	87,122
Kaira		39,756	49,518	36,331	33,898	38,588
Broach and			,	3		
Panch Mahals	i	4,867	9,626	9,977	7,023	8,085
Surat		7,802	7,549	7,519	6,264	6,690
Br. Gujarat		1,16,523	1,34,144	1,36,732	1,20,585	1,40,481

These figures indicate that over the entire period, area under wet farming expanded by about 11 per cent. A part of the increase may be due to extension of paddy cultivation arising out of favourable monsoons during these years. Researches that have already been carried out have shown that the scope of expanding area under irrigation farming in Gujarat is not unlimited. In actual fact over a large number of years there has been a steady decline in acreage under wet farming. Apart from these factors it will be agreed that irrigation facilities cannot be increased at short notice.

Besides, it is only after a careful examination of the question that efforts towards this end can be undertaken. Because of this and in view of the unavailability of data regarding measures taken by the Government to expand irrigation farming, these figures cannot serve as a clear cut pointer to the results of the "Grow More Food" campaign.

The extent of diversion of agricultural lands from the cultivation of non-food crops to growing food crops would perhaps serve as an important measuring rod for assessing the success of the campaign. As already mentioned markets for cotton which is the most important non-food crop in Gujarat were greatly curtailed and although propaganda was directed towards achieving a reduction in acreage under non-food crops in general, special stress was placed on cotton. In addition to this, a corresponding increase in the area under food crops was also aimed at. Thus the campaign not only aimed at expanding production of food, but also at curtailing the cultivation of those commercial crops for which customers were not forthcoming. We give below areas under food, non-food and fodder crops both for the district and the whole region for the years 1939-40, 1941-42, 1942-43 and 1943-44.

•		1939-40.	į		1941-42,			1942-43	,		·1943-44.	•
District.	Food* crops.	Non- food crops.	Fodder crops.	Food crops.	Non- food crops.	Fodder crops.	Food crops.	Non- food crops.	Fodder† crops.	Food crops.	Non- food crops.	Fodder crops.
Ahmedabad	965	494	98	990	592	76	982	426	265	973	469	257
Kaira	486	228	143	207	· 249	108	589	161	135	579	178	119
Broach and Panch Mahals	630	489	108	685	487	110	809	400	111	754	444	119
Surat	273	214	295	228	249	286	357	183	284	362	188	. 282
British Gujarat	23,55	14,25	644	24,10	15,77	580	27,37	11,70	795	26,67	12,80	777

^{*} Include areas under cereals, pulses and fruits and vegetables.

[†] The sudden increase in the acreage of fodder crops is largely accounted for by the transfer of area under jowar fodder from jowar cereal, which was hitherto the case, to this head:

These figures show that the campaign succeeded in creating a trend in the desired direction although the results achieved cannot be said to be remarkable. The ratio of food, non-food and fodder crops which stood at 53:34:13 in 1941-42 was altered slightly and stood at 58:25:17 in 1942-43, the first year of the campaign. The year 1943-44, however, presented a different picture in that the area under food crops declined by about 3 per cent., lands under non-food crops increased by approximately 9 per cent. and the ratio of the three types of crops stood at 57:27:16. Cultivation of cotton alone expanded by 13 per cent. This sudden swing towards the cultivation of non-food crops in 1943-44 may be explained by the high prices of cotton, tobacco and groundnuts, but more particularly of cotton, in that year.

The Growth of Food Crops Act, 1944:

By the year 1943 it was realised that the "Grow More Food" campaign did not go far in curtailing the cultivation of non-food crops and expanding the area under food crops. Particularly when during 1943-44 cultivation of non-food crops increased at the cost of both food and fodder crops the Government viewed the situation with concern. It was further realised that unless the undesirable development was arrested, the food crisis would be aggravated in due course. To prevent this and, in addition, to bring a larger area under food crops the Growth of Food Crops Act was promulgated in May 1944 after obtaining the necessary sanction from the Government of India. The sole responsibility for the outcome of the measure was to be that of the Government of Bombay. Sections 3 and 4 of the Act aim at regulating acreage under different classes of crops. For this purpose crops were grouped into scheduled food crops and scheduled non-food Under the first head were included the major cereals of rice. wheat, jowar, bajri and maize together with minor cereals like kodra, bavto, vari, etc., and pulses. Cotton and were the two main scheduled non-food crops. Vegetables, groundnuts, sugarcane, etc., were excluded from both these categories. Every farmer in the areas where section 3 of the Act was applied was required to maintain the same portion of his holding under food crops in 1944 and subsequent years as in 1943. Section 4, on the other hand, goes further and lays down minimum and maximum proportions of holdings of farmers in different regions that are to be under scheduled food and non-food crops during 1944 and subsequently. The farmers are left free to grow non-scheduled crops on the remaining areas of their holdings. The attached statement gives the areas in which Sections 3 and 4 were applied in 1944 and the alterations made and exemptions allowed later on in their working. It will be found from it that in certain areas where food crops are predominantly raised and where additional diversions towards raising them are not feasible; Section 3 has been applied, while in areas predominantly under commercial crops section 4 has been made operative.

Instructions were issued for the benefits of the farmers about the major cereals suitable to lands in different districts as also the agricultural practices that might be followed for their successful raising. A special remission of 2 annas in a rupee of the land revenue paid was made to those farmers who fully complied with the provisions of the Act. Besides legal measures, seeds of improved strains and manures like groundnut cakes and sulphate of ammonia were supplied to farmers at concessional rates. Government grants were made available for the construction and repairs of tanks and wells for irrigation. The Government also undertook to purchase foodgrains offered for sale in any quantities at prices preciously notified. This was done with a view to assuring the farmers markets for their crops at prices known to them in advance.

In order to find out the extent to which the application of the Act carried the administration towards the desired objective an examination of the statistics of the areas under food and non-food crops is necessary. Below are given the relevant figures for the years 1943-44 and 1944-45.

(000 acres)

	i	1943-44		1944 -4 5		
Region	Food crops	Non- food crops	Fod- der crops	Food crops	Non- food crops	Fod- der crops
Ahmedabad	9,73	4,69	2,57	9,15	2,45	3,90
Kaira	5,79	1,78	1,19	5,60	1,77	1,45
Broach and Panch Mahals	7,54	4,44	1,19	9,95	2,22	1,27
Surat	3,62	1,88	2,82	4,76	76	2,79
British Gujarat	26,67	12,80	7,77	29,46	7,19	9,41

The table indicates that during 1944-45 approximately 2,79,000 additional acres were brought under foodcrops, while the area under non-food crops went down by 4,90,000 acres. The area under fodder crops rose by 1,64,000 acres. As, however, under the enactment emphasis was laid on the increase in the cultivation of major cereals of rice, wheat, jowar, bajri and maize and a reduction in the acreages under cotton and tobacco, an examination of the variations in the areas under the major and minor cereals, scheduled non-food crops and a few important non-scheduled non-food crops would be useful to get a proper perspective of the results achieved from the piece of legislation. The following table gives figures of acreages of the major cereals for 1943-44 to 1945-46 for Gujarat as a whole.

		•		. (6	000 acres)
Cereal			1943-44	1944-45	1945-46
Rice	••	••	4,24	4,83	4,54
Wheat	••	• •	4,06	5,49	5,37
Jowar		• •	4,81	5,42	5,96
Bajri		• •	4,71	4,28	3,88
Maize .		• •	1,28	1,43	1,01
Total	• •		19,10 \	21,45	20,76

Two things become distinctly clear. While during the first year of the working of the Act, the area under the major cereals rose by 2 lakhs acres, in 1945-46 there was a slight decline. The area under them rose from 19,10,000 acres in 1943-44 to 21,45,000 acres in 1944-45, but declined to 20,76,000 acres in 1945-46. A few remarks about specific cereals may also be offered. cause of the peculiar type of soil required and the nature of its farming, it is not possible to expand the cultivation of rice at short notice. Cultivation of maize is limited to parts of the Panch Mahals and Ahmedabad. Expansion in its area is possible only if a second irrigated crop is raised on the same land. Limited irrigation facilities and the meagre capital equipment of the farmers, however, are important limiting factors. For these reasons cultivation of these two cereals would not expand as much as that of others. But these factors apart, there has been an actual decline in their cultivation, probably accounted for by the partial failure of the season. It may be stated in general that between 1943-44 and 1945-46 area under the major cereals increased by 1,66,000 acres or a little over 8 per cent. Minor cereals on the other

hand, seem to indicate a dissimilar development as shown by the figures of kodra and ragi for which separate figures are available.

•		(Figures in acres)			
District		1943-	44	1944	-45
•		Kodra l	Ragi	Kodra	Ragi
Ahmedabad	• •	7,691	3,353	10,471	4,302
Kaira	• •	83,181	55,062	67,059	53,668
Broach	• •	6,365	130.	12,518	Nil
Panch Mahals	• •	32,210	24,099	31,765	21,409
Surat	• •	11,074	6,912	13,529	5,390
Total		1,40,521	89,556	1,35,702	, 84,469

The area under the minor cereals appears to be on the decline and during 1944-45 their cultivation fell by 11,000 acres or 4.7 per cent. Inferior foodgrains contribute substantially to the food of the poor and are mainly used for local consumption. They are raised by the backward classes of farmers in particular and do not require much tillage or care. The Growth of Food Crops Act does not seek to regulate their acreage. A switch over from their cultivation to the raising of major cereals does not seem probable because they are grown on inferior lands. The seasonal factor, therefore, appears to have played an important part in curtailing their cultivation.

Cultivation of oilseeds is important in Gujarat. We shall mention groundnuts, seasmum and castor seeds and examine the changes in their cultivation, during these years from the figures below. These are the important oilseeds crops in the region and will give us an adequate idea of the trend in regard to this group of crops.

Acreage in British Gujarat

•		1943-44	1944-45
Groundnuts	 	1,37,119	1,32,116
Sesamum	 	60,046	50,623
Castor seeds	 • •	37,573	35,758

During 1944-45 the area under the three oilseeds declined by 6,241 acres or 2.5 per cent. Most of the oilseeds in Gujarat are grown along with other crops and some alterations in their acreage from year to year would normally occur depending on climatic conditions and agricultural practices. In addition to this, the limits laid down for scheduled food and non-food crops are likely to affect their acreage.

them expanded by nearly 9 per cent. during 1943-44 and 1945-46. As a result of the working of the Growth of Food Crops Act, this can be only at the cost of non-food crops, particularly the scheduled ones because our examination has shown that reduction in the areas under minor cereals and non-scheduled pulses and non-food crops was not appreciable. Besides a part of the fall in the cultivation of minor cereals and oilseeds was offset by increase in the area under sugarcane and fruits and vegetables as shown below.

Crop.	; . ;		; { ·	•	1944-45 · (acres).	1945-46 (acres)
Sugarcane	<i>.</i>	•	• •	3,029	3,130	2,839
Fruits and v	eget	ables	***	29,132	45,786	7, J -

now examine their place in Gujarat agriculture following the enactment of the law. The figures of areas under both the crops in Gujarat that will follow indicate the gradual decline in their cultivation.

		Average,			,	(000 acres)
Commodity	{	1935-36 to 1939-40	1942-43	1943-44	1944-45	1945-46
Cotton	• •	10,69	8,23	9,35	3,71	3,57
Tobacco	• •	83	58	60	78	_
£: Total		11,52	8,81	9,90	4,49	* 4 <u>* * * * * * * * * * * * * * * * * *</u>

Tobacco cultivation is largely confined to the Charotar tract of the Kaira district. Cultivation of cotton, on the other hand, is more or less universal in the region. It will be found from the table that there has been a gradual decline in the area under these two crops during 1942-43 and 1943-44, largely as a result of the "Grow More Food" campaign. After the introduction of the compulsory measure regulating crops in 1944 the acreage under them declined by 5,41,000 acres or nearly 55 per cent. in one year, 1944-45. Towards the close of the agricultural season of 1945-46, the cultivation of cotton alone had gone down further by 3.8 per cent. A closer scrutiny of the table will indicate that in spite of the "Gorw More Food" campaign and the Growth of Food Crops Act, 1944 cultivation of tobacco progressively increased upto 1944-45, and although statistics of area under the crop for 1945-46 are not available there is reason to believe that the trend persisted in that year also. A large number of prosecutions launched by the Government against the farmers of Kaira for the breach of the relevant provisions of the

Act indicates that the increase in acreage under tobacco might have been largely contributed by that district*. The fact that emerges from this discussion and from what we saw in connection with non-scheduled crops, therefore, is that reduction in area under scheduled non-food crops was due mostly to the curtailment of the cultivation of cotton. The area under cotton in Gujarat fell from 8,23,000 acres in 1942-43 to 3,57,000 acres in 1945-46 or more than 56 per cent., most of which occurred during 1944-45 and 1945-46. In Broach and Surat lands under cotton decreased by 2,17,000 and 1,15,000 acres respectively in 1944-45. In Ahmedabad too cultivation of cotton fell by 2,19,000 acres.

The Government's target of acreage to be brought under food crops during 1944-45 was 28,46,900 acres while actually a figure of 32,09,400 acres was reached. Similar figures for later years are not available. This shows that the results of the working of the Act in the first year exceeded official expectations. There is, however, another side to the question. The obejet of enacting the measure can be said to have been achieved only when along with increase in the area under food crops there were substantial additions to the production of foodgrains in the region. It is only the latter that will enable the Government to effectively fight the food scarcity. The figures of total foodgrains production in different years would enable us to judge the position in that regard.

Region			1943-44	(000 tons) 1944-45
Ahmedaba	d		1,99	1,61
Kaira	• •	••	1,93	1,35
Broach an	d Panc	h	•	•
Mahals	••	• •	2,00	2,05
Surat	•••	••	1,14	1,33
British Gr	ijarat	••	7,07	6,35

The above figures read in conjunction with those relating to lands under food crops reveal that in the year 1944-45, while the area under food crops rose by a little over 9 per cent., the total foodgrains production was lower by a little over 10 per cent. than that during the previous year. We shall now

^{*}Official sources reveal that approximately 5000 cases were to be instituted against the farmers for the infringement of the Act, during 1944-45 and 1945-46. This was largely corroborated by the farmers from Kaira during our investigation.

examine the position with regard to the major cereals and a few important minor foodgrains from the figures given below.

	Produ	ction	of Cereals	in Gujarat
				(000 tons)
Cereal	·		1943-44	1944-45
Rice	••		1,15	2,04
Wheat	••		76	88
Jowar	•.•	• •	99	1,05
Bajri	41.	• • •	1,14	56
Maize			43	23
Kodra	• •		58	24.
Ragi	••		55	21
Total	• •	•••	5,63	5,21

The table shows that during the first year's working of the Act although area under these cereals increased from 21,41,000 acres to 23,52,000 acres, the actual production fell from 5,63,000 tons to 5,21,000 tons. Similarly while the percentage rise in the acreage under the five major cereals was about 12 per cent., the total yield of all of them fell by about 13 per cent. In the case of pulses also the acreage increased from 4,19,915 acres in 1943-44 to 4,74,737 acres in 1944-45, but the production only rose from 66,441 tons to 72,755 tons over the same period. It may be conceded that during this period seasons were not favourable. But such factors could not have accounted for such a substantial drop in production, particularly when appreciably large additional areas were brought under the cultivation of foodgrains.

On the eve of the war the aggregate requirement of major cereals was 5,32,871 tons. Taking into account the increase in the population of Gujarat during 4 years at the rate of 2.4 per cent. per annum during the previous decade the total needs in 1944-45 would be nearly 5,83,457 tons. As against this the production came to 5,21,000 tons in the same year. After making the usual allowance of 12½ per cent for seeds and wastage, there would be left a net deficit of 1,27,557 tons. It may be broadly stated, therefore, that in 1944-45, inspite of the Act the food situation was more or less unaltered. In the absence of any major crop failures during the course of the war, we are naturally led to believe that there might be serious flaws in the actual application of the Act, the detailed discussion of which we reserve for the next section.

AIDS TO FOOD PRODUCTION

The "Grow More Food" campaign and the Growth of Food Crops Act, 1944 were accompanied by certain tangible help to the farmers from the Government. Thus efforts were made to fight the food crisis on more than one front. Government's help to the cultivators to produce more and better food took three forms: subsidy to cultivators to encourage them to improve irrigation facilities and the supply of seeds and manures at concessional rates.

It is well known that yields from irrigation farming are considerably larger than those obtained from dry cultivation. Extension of the area under irrigated food crops would obviously make a substantial contribution to food production. The Government sought to achieve an extension of irrigated area by agreeing to bear a part of the cost towards construction of new wells and tanks and the repairs of old ones. Subject to the maximum of Rs. 500 a subsidy of 331 per cent. of the total cost in constructing a well or a tank was offered. In regard to the repairs of wells in disuse, the Government agreed to share the cost equally provided it did not exceed Rs. 150 in the case of a well and Rs. 250 in the case of a tank. Statistics relating to the total subsidy given, the number of new wells and tanks constructed and those repaired for Gujarat separately are not available. But some information which is available on the subject will be of interest. During 1943-44, 533 applications were received in the aggregate from farmers in Gujarat for the subsidization of the construction of wells and tanks. They were distributed as follows:

District					No. of applications
Ahmedabad	••		••	• •	. · 3
Kaira		••	•••	• •	20
Panch Mahals	• •				500 °
Surat	٠.	••			10

It is not known how many of these applications were for wells and for tanks. Nor is it possible to find out how many of the applicants received subsidy. But only 600 new wells were constructed in the whole of the province in 1945-46. From this it may be inferred that an appreciable number of them might not have been entertained. Even this meagre data relating to Gujarat is not available for 1945-46. Thus it is not possible to follow up the progress made with the scheme of subsidy. Some idea, however, can

be had from the fact that out of the total expenditure of Rs. 6,46,000 under these heads in the province till 1945-46, about Rs. 1,07,667 were sepnt in Gujarat. The usual complaints of the farmers in connection with the working of the scheme were the serious delays in obtaining the grants which sometimes meant the missing of the agricultural season and the uncertainty of obtaining building materials and iron goods required for the purpose.

Supply of improved seeds of important cereals and pulses to farmers at fair prices was another item in the Government's "Grow More Food" campaign. The cost on the transport and distribution of seeds was borne by the Government. The quantities of seeds of different cereals and pulses distributed to the farmers in Ahmedabad, Kaira and the Panch Mahals under the arrangement during 1944-45 and 1945-46 are indicated below.

in the second of	1944	L -4 5.	1945–46.		
Commodity	Quantity distributed (Mds.)	Area covered. (Acres.)	Quantity distributed (Mds.)	Area covered. (Acres.)	
Paddy	. 1,175	1,532	1,578	1,578	
Wheat	. 8,763	13,203	4,163	7,332	
Jowar	2,477	11,530		<u>·</u> ·	
Bajri	. 635	4,800	1,186	9,488	
Maize	1,605	6,420	2,956	11,824	
Gram	1 7 00 1	1,400		·	
Total .	15,355	38,885	9,883	30,222	

The Growth of Food Crops Act, 1944 was expected to bring a considerably large area under food crops. It was feared that the farmers might not have in store the additional quanties of seeds that would be required in that connection. In addition to the above arrangement, therefore, the Government made special provision to supply seeds of cereals and pulses to the farmers to cover the increased acreage under food crops. The deputy

directors of agriculture were empowered to acquire as much quantity of seeds as possible from the divisions under them for distribution among growers. The following table shows the quantities of seeds of different cereals and pulses distributed in 1945-46.

District.	Wheat (Mds.)	Jowar (Mds.)	Bajri (Mds.)	Maize (Mds.)	Gram (Mds.)
Ahmedabad	_ :;	24,957	* -	<u>.</u> .	· —
Kaira		4,168	-	-	· · <u> </u>
Panch Mahals	3,614	2,332	1,554	1,522	714

Allotments of seeds of paddy, jowar, bajri, maize, bavto, ragi, kodra, barley and gram were made to the tune of 1,55,886 maunds, but the cultivators took up only 38,861 maunds of seeds of wheat; jowar, bajri, maize and gram. Presumably, the farmers did not require seeds of other cereals and pulses. The special scheme of distributing seeds under the Growth of Food Crops Act has been abandoned from 1946-47, although improved seeds will be distributed under the "Grow More Food" campaign and 4,875 maunds of seeds covering an area of 23,100 acres were allotted to Gujarat excepting Broach in that year.*

The complaints of the farmers regarding the distribution of seeds were of many kinds. They stated that seeds supplied to them were not properly preserved. There were again considerable delays in distributing seeds. Seeds were stored at places which were inconvenient to reach for the farmers of very large areas. Farmers of some villages of Ahmedabad and Kaira, for example, had sometimes to cover a distance of as many as 14 Moreover, the seeds contained a large miles to purchase seeds. proportion of foreign matter which imposed further expenses on the farmers. Influential cultivators were also able to obtain seeds in quantities much larger than their actual needs and the surpluses which they were able to command in this way were utilised as food. But of all the defects of the arrangement, one that related to the supply of unsuitable seeds was perhaps the gravest. It was noted that in some parts of Gujarat. the variety of seeds supplied did not suit the land and as a result of that the crops on not a few fields failed either partially or completely. The

^{*} During 1946-47 the Government distributed 4,475 maunds of improved seeds in Gujarat covering 24,588 acres. Figures of the quantity allotted to the region in 1947-48 could not be obtained, but it is expected to cover 3,15,000 acres under the scheme in that year.

variety of jowar which was distributed in the Viramgam taluka of Ahmedabad was an example of the supply of seeds unsuitable to the land.

Government also distributed groundnut cakes, sulphate of ammonia and arranged with important municipalities in Gujarat for the supply of compost to the farmers at cheap rates. The statement below gives an idea of the quantities of groundnut cakes supplied to the farmers at concessional rates and the acres covered during the years 1943–44 to 1945–46. Figures for the year 1946–47 are of the quantity of cakes allotted and the area expected to be covered in that year.

Year	÷	Quantity distributed (Tons)	Area covered (Acres)
1943–44		14,100	_
1944–45	••	7,964	40,906
1945–46	••	12,186	62,028
1946-47*	••	15,048 (a	llotted) 67,465

A limit to the quantity to be supplied was laid down at 1 ton for every five acres of land under paddy and 6 acres of land under irrigated wheat, jowar or bajri. The price charged was Rs. 60/- per ton in 1916-47. The Government agreed to bear the cost on transport, storage and distribution upto Rs. 20/- per ton.

Ammonium sulphate was supplied at a reduced rate to paddy growers only. The figures below give the quantities distributed in Gujarat and the area covered during 1945-46 and the allotment for 1946-47. The scheme was in operation in 1944-45 also but similar figures relating to that year could not be secured.

Year	Quantity distributed (Tons)	Area covered (Acres)
1945–46	370.5	5,557
194 6_4 7	1,405	

^{* 14,643} tons of groundnut cakes to cover 74,208 acres under food crops were distributed in Gujarat during 1946-47. The corresponding figures of the quantity allotted and the area expected to be covered in 1947-48 are 18,500 tons and 1,27,750 acres respectively.

An idea of the extent of subsidy enjoyed by the farmers can be had from the cost of a ton of ammonium sulphate to the Government in 1944-45 and 1945-46 and the amount recovered from the farmers.

Year	Actual cost per ton	Subsidized rate per ton
	(Rs.)	(Rs.)
1944–45	253	130-4-0
1945-46	245	130-4-0

In addition to the distribution of groundnut cakes and sulphate of ammonia at concessional rates, the Government offered subsidies to municipalities to encourage them to construct trenches and preserve the town compost for use as manure by the agriculturists. Details of the subsidy given are not available, but it may be stated that they took the form of lump sum grants in most cases. The figures below relate to the quantity of compost prepared by different municipalities in Gujarat and that distributed to the farmers during the years 1944 to 1946.

Municipality		Quantity prepared (Tons)	Quantity distributed (Tons)
Ahmedabad		300	36
Mehemdabad	• •	207	_
Kaira	••	125	· -
Nadiad	••	477	329
Anand		86	· —
Dakor	••	626	180
Broach	• •	2,709	. 300
Surat	• •	78	_
Rander	• •	201	_
Total	• •	4,809	845

Attempts were also made to encourage cultivators to convert all forms of waste into compost and use it as manure. The Government offered a

subsidy of Rs. 3/- per every pit dug by the farmers of a capacity to store 5 tons of waste; one rupee out of the amount of subsidy was paid at the time of preparing the pit and the balance was made over when the compost was ready in the prescribed form. The results achieved in this connection are summarised below.

	Pits	Pi			
District	allotted	1943-44	1944-45	1945–46	Total
Ahmedabad	800	800		368	1,168
Kaira	700	226	179	618	1,023
Broach	400			—	.—
Panch Mahals	600		196	25	221
Surat	800	144	157	_	301
Total	3,300	1,170	532	1,011	2,713

A few comments on each one of the schemes of increasing the supply of manures and fertilizers to the farmers would be useful. The response from the farmers to the arrangements for the distribution of groundnut cakes was comparatively encouraging, but on account of a few defects in the system of distribution and the wrong use to which some farmers put the material, the effect of the Government's efforts in this direction was to some extent nullified. But before examining them it should be stated that the quantity of groundnut cakes distributed every year was quite insufficient looking to the area under irrigated food crops in Gujarat. Apart from this, there were other serious flaws in the arrangement. It was believed that as the order for freezing of the stocks of groundnut cakes with the producers was not accompanied by the control on the movement of the commodity, a part of the production disappeared into black markets. More or less similar condition arose when instead of weighing each bag of groundnut cakes to ascertain the quantity in it, the content of all the bags was taken to be the same on the basis of the weight of a few samples. This gave an opportunity to those in charge of distribution to remove a small quantity from each bag. The farmers had no alternative but to accept the weight specified and pay the price on that basis, although a part of the contents might have been removed in the process of handling the bags. Groundnut cakes so obtained by the distributing agencies were sold to the textile mills, cultivators and 'rabaris' at black market rates. Groundnut cakes were in heavy demand by the textile mills in Ahmedabad and elsewhere for being used as fuel when there was an acute scarcity of coal. Similarly when fodder was scarce, there prevailed a great demand for groundnut cakes from the cultivators and 'rabaris' for feeding livestock. This was particularly so in North Gujarat. The cultivators too were guilty in some cases of using groundnut cakes for manuring non-food crops, particularly tobacco, instead of food crops for which purpose the commodity was supplied to them at concessional rates.

It will be found from the statistics given earlier that the use of sulphate of ammonia and compost as manure was not much. Sulphate of ammonia could not be used in large quantities because of certain technical difficulties. Besides, the old prejudice of the farmers against using chemical fertilizers might have also been responsible for this. Regarding compost the unscientific manner in which it was prepared was largely responsible for its low popularity with the farmers. Because of the absence of moisture in the waste it could not decompose and acquire manurial value. As such the soil could not assimilate it. Besides, the town waste carried with it materials like, glass, etc., which would be damaging to the land. Added to this was the prohibitive cost on its transport to the fields.

Our discussion has revealed that the official efforts to improve irrigation facilities and to supply seeds and manures were not adequate. A very small number of tanks and wells seems to have been repaired, and still fewer new ones have been constructed. Seeds distributed proved unsuitable many times. The defects in the distributive machinery of seeds and manures gave rise to malpractices like black marketing and their wrong use which prevented them from reaching the right persons in desired quantities. Thus the efforts in this direction were sometimes misconceived and often half-hearted and ill-executed.

Effects:

Our study of the developments that followed the introduction of the Growth of Food Crops Act, 1944 led us to the conclusion that although area under food crops increased by about 10 per cent. during the year 1944-45, the total outturn of foodgrains declined by 10 per cent. over the same period. There were unfavourable agricultural seasons during these years, but they alone cannot explain the decline. It is possible that the actual area under food crops was less than that returned by the village accountant. Influential farmers might have succeeded in persuading the village officials to so enter in the crop register areas of their holdings under food and nonfood crops so as to conform to the provisions of the Growth of Food Crops Act while continuing to cultivate the more paying food crops in larger proportion. The officials themselves might have encouraged the practice to some extent with a view to avoiding the extra work that would arise if proceedings were to be instituted against farmers infringing the Act. Apart from this there are strong reasons to believe that there has been a fall in the production of food due to a fall in the yield per acre arising out of certain new factors introduced by the Act in the agriculture of Gujarat. The Act necessitated many changes in the agricultural practices and land. In addition, it also caused a few hardships to the rural population. We admit, it is difficult to judge the effects of a measure of the kind from its working over only a few years. Our inferences may therefore be treated as tentative.

In the first place, the Growth of Food Crops Act necessitated departures from certain long established practices of crop rotations. Through years of trial and error, certain rotational practices have been evolved by the farmers in Gujarat. They are being followed for a long time and have proved their merit. It would not be possible to enumerate the rotation systems pursued in respect of a large variety of crops, but the instance of cotton and jowar which normally occupy a substantial acreage of the agricultural lands in the region will bring out the basis of our contention. Leaving aside certain exceptional variations, farmers of Surat and Broach commonly devote 25 to 35 per cent of their holdings to jowar and cultivate cotton on the remaining. When the possibility of successfully manuring these dry crops either with cow dung or artificial fertilizers are limited, this practice goes a long way in replenishing the fertility of the soil which gets exhausted

through cropping year after year. The Act upsets this traditional rotation system. Section 4 of the Act which stipulates that an overwhelmingly large proportion (from 50 to 85 per cent.) of the holding shall be under food · crops, disturbs such practices with the result that a tendency towards the exhaustion of agricultural lands is set in motion. Section 3 aims at stabilizing the proportions of area under food and non-food crops on the basis of those that prevailed in 1943-44. In the year previous to the one in which the Act was enforced, the agricultural season over certain areas was such that a much larger acreage had to be sown with food crops, and inasmuch as this section stereotypes the emergency arrangement of that year it disturbs the normal practice of rotation. The instance of the Chorasi taluka of Surat is a case in point, where on account of excessive early rains in 1943-44, cotton could not be sown and a considerably larger area than the usual had to be devoted to raising jowar in that year. The Act -came in the subsequent year and perpetuated the unusual arrangement. The outcome of such a change would not be much dissimilar to that caused by section 4 which aims at a radical readjustment of the proportions of the .holding under food and non-food crops.

Another way in which the Act unfavourably affected the farmers of ·Gujarat was by disturbing the distribution of their work between the khariff and rabi seasons. Cotton is essentially a kharif crop. Jowar which is rotated with cotton, on the other hand, is for the most part a rabi crop. We saw that every year the farmer devoted 60 to 75 per cent of his holding to the cultivation of cotton and raised jowar on the remaining. Thus under the normal system of rotation most of the agricultural operations connected with the cultivation of cotton were put through during the monsoon leaving the peasant free to attend to the jowar crop towards the close of the monsoon and in the winter. In the absence of suitable spare time occupations in which farmers could be gainfully occupied, the prevailing cropping systems of Gujarat in this way evenly distributed the work connected with farming over the kharif and the rabi periods. The farmer was neither overworked at certain times nor absolutely idle at others. Under the Growth of Food Crops Act, the part of the holding that can be devoted to cotton is highly curtailed. Jowar covers most of the area of the holding. The new arrangement brought about in this way leaves much less work for the farmers during the khariff season concentrating it in unmanageable proportion during the rabi season. This is illustrated by the following table giving areas under kharif and rabi food crops during 1941-42 and 1944-45.

(000 acres).

	1941-42				1944-45			
District.	Kha-rif.	Per- cent- age of total area under food crops.	Rabi.	Per- cent- age of total area under food crops.	Kha- rif.	Per- cent- age of total area under food crops.	Rabi	Per- cent- age of total area under food crops.
Ahmedabad	5,69	71.3	2,29	28.7	5,17	58.87	3,09	43.13
Kaira	4,29	93.88	28	6.12	5,00	90.25	54	9.75
Broach and Panch Mahals	4,46	65.5	2,35	34.5	4,58	46.35	5,3 0	53.65
Surat	1,95	92.28	21	7.92	3,32	71.88	1,30	28.12
British Gujarat	16,39	76.3	5,13	23.7	18,07	63.9	10,23	36.1

It will be found from the table that the proportion of areas under kharif and rabi crops which was 76:24 in 1941–42 was changed to 64:36 in 1944–45. Agricultural operations connected with food crops, both monsoon and winter, are largely spread out during the rabi season. The cultivators find it beyond their resources and ability to put through agricultural operations connected with them over very large parts of their holdings. Sowing operations connected with rabi crops have to be put through in a very short time. Even a slight increase in the average of these crops, therefore, would render the task of the farmers more difficult. Failure to carry out these operations in time would mean missing the agricultural season for the year. Domestic labour would prove inadequate and to make the best of the job, farmers had to employ extra hired labour. With the shortage of labour created by the increased demand for it in multifarious lucrative alternative employment available elsewhere on account of the conditions created by the war,

the great difficulty with which the farmers are confronted can easily be appreciated. With a limited supply and increased demand, wages for field labour attained unknown high levels during sowing, weeding, harvesting, etc., of rabi crops. Along with the rise in the other items, wages of field labour also rose. But the more important contributory cause was the prevailing labour scarcity. The farmers were compelled to offer unusually high wages to complete agricultural operation in time. These two factors taken together led to disproportionate increase in expenses on labour as an item of the cost of cultivation.

Moreover, most of the farmers with tiny holdings also found it inconvenient to grow scheduled non-food crops, particularly cotton, over a very small part of their holdings permitted by the Act. Many such farmers are reported to have abandoned the cultivation of cotton altogether. To such farmers the hardships arising out of the concentration of agricultural operations mainly in the rabi season were intensified. Besides, this left no scope for rotation on such holdings. Furthermore, as a result of the abandoning of the cultivation of cotton, an important source of cash income of such farmers dried up.

The system of crop rotation that was normally followed by the farmers had an additional advantage of keeping down the growth of unnecessary vegetation in the fields to the minimum. Besides weeding was frequent and easy when cotton occupied the place in the cycle of rotation. Thus what little of it thrived could be removed while weeding and the fields kept clear of such growth. With the cultivation of food crops year after year both these factors ceased to obtain so that superfluous vegetation began to grow luxuriantly. This sapped the soil of its fertility and damaged the standing crops. Under the circumstances, weedings became frequent and prolonged which added materially to the cost of cultivation. These increased the demand for agricultural labour at a time when there prevailed its scarcity.

The Government issued instructions regarding the various food crops which could successfully be grown in place of non-food crops in different places. These suggestions seem to have not been put to test previously because adjustments in cropping made accordingly resulted in partial or total crop failures. For example, the 'ush' lands of the Viramgam taluka of Ahmedabad is suitable for very light tilling and is fit for the cultivation of

cotton only. Efforts to raise bajri on this soil in accordance with the official, instructions did not succeed as the crop in most cases failed. This also involved the farmers into considerable losses.

Heavy curtailment of acreage under cotton inconvenienced the rural populace in two additional ways. In the black cotton tracts, which cover a very large area of Gujarat, forests do not thrive. People, therefore, use cotton stalks as fuel. When acreage under cotton was reduced to one-third and less of the original, the supply of this type of fuel was highly curtailed and created a problem for the villagers of those areas. Cotton seeds again are an important feed for the dairy animals. In view of the little cultivation of cotton and its limited crop the quantity of cotton seeds available also went down a good deal. Although cotton seeds were rationed in time, the distribution of the meagre rations of the commodity remained highly irregular. This state of affairs adversely affected the milk yields of dairy animals, qualitatively and quantitatively.

In the foregoing pages we have attempted to assess the results of the Government of Bombay's measures, both voluntary and compulsory, for increasing the production of food crops in Gujarat. As will be seen, no striking results have been achieved. All that we need say is that the isolated efforts, however well conceived, will make little headway. Increased production of foodgrains is a part of the bigger problem of increasing efficiency of agriculture, and that, as we all know, will respond only to a total reconstruction of our agriculture.

STATEMENT SHOWING THE AREAS IN WHICH SECTIONS 3 AND 4 OF THE GROWTH OF FOOD CROPS ACT, 1944, WERE APPLIED IN THE YEARS 1944, 1945 AND 1946.

		Proportion of holding to be under				
Year 	Section	Scheduled food crops	Scheduled non-food crops	Areas covered (districts and talukas)	Exemptions	
1944	3	As in 1943-44 season	As in 1943-44 season	Surat: Chorasi, Jalalpore and Chikhli talukas		
				Panch Mahals: All talukas	:	
			1	Kaira: Mehemdabad, Kapad- vanj, Thasra, Nadiad, Matar and Borsad ta- lukas		
	•	·	;	Ahmedabad: City mahal, Daskroi, Dholka, Dhan- dhuka, and Viramgam ta- lukas and Ghogha mahal		
	4	2/3	1/6	Surat: Olpad, Mandvi, aud Bardoli talukas and Valod mahal *Broach: Ankleshwar, Broach, Vagra and Jambusar ta- lukas	Bulsar and Pardi talukas of Surat	
				Kaira: Anand taluka. Ahmedabad: Sanand taluka and Modasa mahal		
			,	* Subsequently the proportion of the scheduled non-food crops was raised to 1/4.		
1945	3	As in 1943-44 season	As in 1943-44 season	Surat: Chorasi taluka		
	4 .	2/3	1/4	Surat: Olpad, Mandvi, Bardoli, Jalalpore and Chikhli ta- lukas and Valod mahal	Bulsar and Pardi talukas of Surat	
				Broach: Ankleshwar,Broach, Jambusar and Vagra ta- lukas		
		2/3	1/6	Kaira: Kapadvanj, Anand and Thasra talukas		
,		'		Ahmedabad: Sanand taluka and Modasa mahal		

					
	Section	Proportion of holding to be under			
Year		Scheduled food crops	Scheduled non-food crops	Areas covered (districts and talukas)	Exemptions
1945	4	3/4	1/8	Panch Mahals: Halol peta.	
. 🔻				Ahmedabad : Dholka, Dask- roi and Viramgam talu- kas	,
		3/4	1/10	Kaira: Nadiad, Matar, Meh- madabad and Borsad ta- lukas.	;
·			,	Ahmedabad : Prantij and Dhanduka talukas and Ghogha and City mahals	
	<u> </u>	7/8	1/100	Panch Mahals: Godhra and Dohad talukas	
		3/4	1/100	Panch Mahals: Jhalod peta	
	}	2/3	_ 1/100	Panch Mahals: Kalol taluka	
1946	3	As in 1943-44 season	As in 1943-44 season	Surat : Chorasi taluka	
				Kaira : 21 lots and Mal Itadi village of Kapadvanj ta- luka and 28 lots of Tha- sara taluka	;
	4	2/3	1/6	Ahmedabad: Sanand mahal except 13 villages	: 1
				Panch Mahals: 16 villages of Godhra taluka, 11 vil- lages of Halol peta and 1 village of Kalol taluka	
-		3/4	1/8-	Ahmedabad : Dholaka taluka except 65 villages	Dholka taluk
				Panch Mahals: Halol peta except 11 villages	in Ahmedaba
	,	3/4	1/10	Ahmedabad: Prantij taluka except 47 villages and City mahal except 1 vil- lage and Ghogha mahal	City mahal o
		7/8	1/100	Panch Mahals : Godhra taluka except 16 villages and Dohad taluka	

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Year Section		Proportion of holding to be under			
		Scheduled food crops	Scheduled non-food crops	Area covered districts and talukas)	Exemptions
1946	4.	3/4	1/100	Panch Mahals: Jhalod taluka	
ı		2/3	1/100	Panch Mahals: Kalol taluka except 1 village	
		2/3	1/3	Ahmedabad: 13 villages of Sanand mahal, 28 vil- lages of Prantij taluka,	· ,
				24 villages of Dholaka ta- luka, Dhandhuka taluka except 44 villages, Vi- ramgam taluka except 44 villages and Modasa peta except 20 villages	44 villages of Dhandhuka ta- luka
		3/5	1/10	Ahmedabad: (a) 19 villages of Prantij taluka	
		3/5	2/5	(b) 44 villages of Viram- gam taluka	
		3/5	1/6	(c) 20 villages of Modasa mahal	,
,		1/2	3/10	Broach: Ankleswar, Broach, Vagra and Jambusar ta- lukas	
		ز		Surat: Mandvi taluka except 31 villages, Bardoli taluka except 1 village, and Olpad, Jalalpore and Chikhli talukas and Valod peta	Bulsar and Pardi taluka
		17/25	4/25	*Kaira: Kapadvanj taluka except 21 lots and Mal Itadi, and Thasara taluka except 28 lots and Anand taluka	
<u> </u>		3/4	4/25	*Kaira : Matar, Mehemdabad, Nadiad and Borsad ta- lukas	

^{*} Land under tobacco should in no case be more than 1/10 of the holding in these areas. Scheduled non-food crops should not be grown on irrigated lands in these areas.

Area upto 1/10 of the holding under 'guvar' should be deducted from the total area while calculating the proportion of different crops on the holding.