



SCHEME

FOR

DEVELOPMENT OF SUGARCANE

IN THE

UNITED PROVINCES

Scheme for Development of Sugarcane in the United Provinces.

The proposals outlined in the following scheme have been drawn up in response to the allotment of Rs.30 lakhs for the promotion of sugarcane development in the United Provinces during a period of five years, vide letter no. 3-60/46 of January 21, 1947, from the Secretary, Indian Central Sugarcane Committee, to the Secretary, Government of the United Provinces, Agriculture Department.

Introduction.

The Province has about 20 lakh acres under sugarcane, and if the allotment of Rs. 30 lakhs is distributed for development over the entire area under cane, the amount available per acre comes to less than 5 annas per year. The reserved area under the Cane Development Department is 9 lakh acres, and the grant of 30 lakhs spread over this area gives 10 annas per acre per year. These amounts even in addition to the funds contributed by the Provincial Government are very inadequate for bringing about any perceptible improvement in cane, and it is, therefore, proposed to utilise the grant in developing about 30 to 40 per cent. of the total cane acreage of the reserved areas, whereby a tangible amount per acre of cane can be made available, and where with suitable additions to the existing staff, the fullest economy and efficiency in the operation of the scheme can be ensured. In the entire area in general, development work in cane is being carried on by the Cane Development Department at an annual expenditure of about Rs. 2 lakhs on subsidies for seed and manures and Rs. 14 lakhs on staff, apart from the work of the Co-operative Societies organised by the Department.

Incidence of development work.

The acreage which thus comes within the scope of the proposed intensified development under this scheme forms a part of the area which has already been under development work for several years and considerable development has already been effected to date. The cane yield in these areas varies from field to field, and grower to grower, and ranges between 200 maunds to 900 maunds or more per acre, according to the facilities available to and the progressive outlook of the grower. Due to inadequacy of funds it has not been possible in the past to effect a uniformly high level of cultivation in the entire area, and even the efforts made in the past for intensive cultivation of cane had to be restricted to concentrated blocks of cane.

The present scheme aims at intensifying development in areas which are not at present under intensive development and whose low yield of cane seriously brings down the average yield of the zone. The target is proposed to be achieved by diverting the available funds to and intensifying development in these low yielding areas and fields, and for every rupee spent in development, the improvement will be the greatest where the present yield is the lowest. The aim is to strengthen the weaker links in the chain, so that the general level of yield may be brought up to a high and more uniform level. It is proposed therefore to specially administer to the needs of about one thousand acres in the zone of each factory, where the yield is not delimited by natural and uncontrollable factors, and where fields, under proper development, are capable of giving good yields. This would cover an acreage of about 1,00,000 acres for intensive development.

Objective.

In this connexion, the development of cane meant for *gur* purposes is not overlooked. At present out of a total of about 30 crore maunds of cane produced in 0.9 million acres of the reserved area only about 14 crore maunds are being utilised by factories for the production of sugar and a large part of the remainder is being used for production of *gun* and *khandsari* sugar. As is well known, *gur*-making and *khandsari* sugar manufacture compete seriously with sugar production in the reserved areas, and as the crushing capacity of the factories is limited, a considerable part of the additional cane produced by the intensification of development will be available for *gur*-making while at the same time easing the position of the factories in the matter of their normal supplies of cane.

Development of cane for *gur* purposes.

The proposed development will be carried out along the following lines :

Proposed lines of development.

- (1) An increase in facilities for irrigation.
- (2) Distribution of seed-cane of improved, higher cane and sugar-yielding and disease-resistant varieties.
- (3) Manuring, both basal manuring and top-dressing.
- (4) Disease control through Watch and Ward against diseases and pests.
- (5) Provision of trained personnel for translating the results of research into development.

Zonal trials already in progress.	<p>Thus the scheme will cover the first five and most important items laid down by the Indian Central Sugarcane Committee. In order to ensure proper and efficient functioning of the scheme and the effective application of the proposed measures for development the training of the lower staff engaged in development will also be taken. Zonal trials on sugarcane in this province are already being carried out by this department in collaboration with Research Section and in addition, the Cane Development Department is also conducting a large number of cultivator's field trials, which have for their objective the testing out and demonstration of the improvements in yield which can be obtained through the adoption of new varieties and various recommended practices in the improved system of cane cultivation. Along the same lines, in order to further carry the main results of research to the cultivator's field, a large number of demonstrations of the different improved practices will now be carried out in the area of intensive development. Within the allotted funds, it will not be possible to set up a soil extension service, but soil survey work in cane areas is already in progress in the province and fairly detailed soil-maps of the Gorakhpur and Deoria districts have been prepared by the Research Station. It is understood that the 5-year extension proposals of the Research Section include a provision for an additional unit for soil survey in the western tract, and the existing staff of the soil survey section have started work in the Basti and Gonda districts in the current year. The results which will be obtained in the course of the next 3 or 4 years will provide soil-maps for about more than 2/3 of the cane area under the Cane Development Department, and a soil advisory service can be set up immediately thereafter without additional expenditure. No provision has therefore been made in these proposals either for zonal trials or for a soil extension service. Duplication of work has been carefully avoided and with the collaboration of the Research and Cane Development Sections it will be possible to utilise the detailed tractwise information collected by the two Sections to the maximum advantage and benefit of the cultivators and the sugar factories in the Province.</p>
Demonstration of improved cane cultivation.	
Soil extension service at a later date.	
Improvement of ratoons.	<p>The average yield of cane in the reserved cane areas of the Province varies from 300 to 500 maunds per acre the yield varying from year to year and from tract to tract. The most important factor which depresses the average yield and acts as a drag on the progress of development is the persistent low yield of ratoons. While the cultivator is fully aware that cane crop needs good manuring, irrigation and interculture, he believes in giving these benefits only to plant-cane, and is totally indifferent to ratoons. The result is a low yield of cane in ratooned fields which cover over 30 per cent. of the cane area. Pending the completion of experiments on ratooning and the adoption of a policy towards the advisability of keeping ratoons, no steps were so far taken for the special improvement of ratoons, and ratooning itself was being discouraged, as far as possible. In view of the recent decision to encourage well-cultivated first ratoons, it is now possible to undertake and go ahead with the improvement of ratoons in this scheme. The response of ratoon crops to good cultivation, manuring and irrigation has been observed to be at least as good and often better than that of plant-cane and the priority for intensive development work proposed to be given to ratoons is consistent with the avowed object of strengthening the weaker links and ensuring the maximum return for every rupee spent in development.</p>
Target yields.	<p>The margin between the existing level of yield which is at least about 350 maunds per acre and the target yield of 700 maunds per acre in the areas to be developed is proposed to be covered, as stated above, by the provision of irrigation and manures for the cane crop and the replacement of old varieties by new. In regard to irrigation research results indicate that one irrigation in addition to the basic level of two gives about 70 maunds increase in the yield of cane, and two additional irrigations give an increase of about 120 maunds. The cultivator generally gives at least one or two irrigations to plant cane, but ratoons are mostly rainfed. Although therefore a higher average increase in yield may be expected, the conservative estimate of the increase in yield due to two irrigations may be taken to be about 120 maunds per acre.</p>
Yield increase through irrigation.	
Yield increase through manuring.	<p>On the manurial aspect, the results of research work show that 1 lb. of nitrogen gives about 1 to 3 1/2 maunds of additional cane, the quantity of additional cane depending upon the form in which nitrogen is applied. <i>Sanaï</i> green manuring, oil cakes and sulphate of ammonia are three forms in which the cane-producing values of nitrogen are high. The manuring is proposed to be done at 100 lbs. nitrogen per acre. At a very conservative estimate, this is expected to increase the yield by 200 maunds per acre.</p>
Yield and sugar increase through varieties.	<p>In varieties, a great deal of progress has already been made in the United Provinces and the area under <i>desi</i> canes in the reserved areas is negligible. Replacement of the existing improved varieties by new varieties is also in progress, so that the scope of work in this direction is in the organisation of healthy seed-nurseries for supplying good seed of new varieties to cultivators. While this will help to replace the varieties which are at present affected or liable to be affected by red-rot and thus prevent losses in cane production, the new varieties being markedly higher in their yielding capacity the yield per acre will also be improved to some extent by the replacement. However, varietal replacement at present in the United Provinces is not expected to improve the average yield by more than 5 or 10 per cent. i.e. by about 20—30 maunds per acre. The</p>

replacement of old varieties by new and diseased crops by healthy crops together with progress in variety-wise supplies will also improve the sugar recoveries. The progress towards the target yield will be thus shared by the three factors as follows :

Assumed Basic Yield .. .. .	..	..	..	..	350 maunds per acre
(i) Through 2 or 3 (additional) irrigations .. .. .	..	..	..	..	120
(ii) Through manuring with 100 lbs. nitrogen per acre .. .. .	..	..	..	..	200
(iii) Through varietal replacement and propagation of healthy seed .. .. .	..	..	..	..	30
Total .. .. .	..	..	..	..	<u>700</u>

Irrigation—The main need is additions to the source of irrigation itself, particularly in the eastern half of the province, where there are neither canals nor tube-wells to supply water for irrigation. It is most essential to aid the construction of at least 1,500 wells in these areas. The cost of digging and masonry constructions per well is estimated to be about Rs.1,500 and it is proposed to aid the construction of wells by an advance of 50 per cent. of the cost of the well, out of which half the amount (25 per cent. of the total cost) will be recovered from the grower in the first year following construction of the well. The net cost to the scheme per well thus comes to Rs.375. If each well is used for irrigating as little as 5 acres of cane it will mean an increase of about 600 maunds of cane valued at present Rs.750 so that with the very first two irrigated cane crops, the cultivator should be in a position to recover almost the entire cost of the well apart from his increased income in other crops. The 25 per cent. aid given in the construction of these wells cannot be considered as the promotion of a costly irrigation project. The benefit to be derived from such wells is as quick and prompt as that of manures, and at the same time, unlike manures, the initial cost with a small recurring cost brings perennial benefit. The construction of wells has therefore to be given the first preference in the programme of development. A sum of Rs.5,62,500 therefore has been provided in the scheme for aiding the construction of 1,500 wells in five years.

Proposals regarding irrigation.

Construction of wells.

An alternative plan for improving irrigation facilities and increasing the yield is the construction of tube wells to be worked by diesel oil engines in some of the areas where electricity is not available. This project will primarily be undertaken by Cane Co-operative Societies as a part of their development activities. It is not, however, possible for them to invest the large amount required for this purpose and the societies will have to be liberally subsidized. It may be done out of the savings of the provision for the construction of masonry wells, if any, as a trial in the first instance at selected places. The cost of construction and working such tube wells (see Appendix IV) works out to Rs.21,979 per well which includes both non-recurring Rs.11,800 and an annual recurring expense of Rs.10,179. If any of the unions are prepared to invest their money in such irrigation projects, the subsidy will have to extend over as much as 50 per cent. of the total cost per annum in the form of equipment for working the wells whereas non-recurring expenses will have to be met by the unions themselves. The secondary advantage of organising such societies will be that after liquidating the investment the annual profit can be utilised towards further development of irrigation facilities like *pucca* channels and in improving other agricultural aspects of the union wherein the well is situated.

The provision of wells alone will not ensure the proper and timely irrigation of cane. It is necessary to provide waterlifts for facilitating irrigation. Waterlifts are proposed to be provided for these new wells as also for wells which are not now provided with lifts in the areas meant for development. Further a great deal of the cane crop in canal areas is at present insufficiently irrigated for want of labour-saving waterlifts, either bullock-driven or hand-worked. Where the level of the field is higher than the level of canal water delivered at the silt, waterlifts like Egyptian screws, etc. will help in irrigation. The lifts will be supplied to the cultivator at 75 per cent. of the cost price the remaining 25 per cent. being borne from out of the funds of the scheme. The waterlifts supplied will be of different types to suit the different requirements but will be mainly Persian wheels. It is not possible to assist in the installation of power-driven waterlifts from out of the funds of the present scheme. A sum of Rs.3.54 lakhs has been set apart for aiding the provision of waterlifts. About 4 to 5 thousand waterlifts will be put into operation, to facilitate irrigation of between 20 and 25 thousand acres of cane.

Provision of waterlifts.

Manuring—The proposed level of manuring in the areas to be developed is 95 to 100 lb. nitrogen per acre as follows :

Proposals regarding manuring.

Sanal green manuring .. .. .	..	..	..	..	..	60—65 lb. N.
Oilcake .. .. .	..	..	..	..	..	20 ..
Sulphate of ammonia .. .. .	..	..	..	..	..	15—20 ..

Sanai green manuring.

These forms are among the most suitable ones for intensive development of cane. At present the cultivator needs only some persuasion to use oil-cakes and sulphate of ammonia for his cane crop, but the benefits of *sanai* will have to be proved to him through half-field demonstrations with adequate monetary inducement and *sanai* seed is therefore proposed to be offered to him at a concession of Rs.2-8 per maund. A sum of Rs.5 lakhs which has been provided for this purpose will enable about 250,000 acres to be green-manured during the five year period. In the first year the target acreage for subsidized growing will be only 15 thousand acres, but as supplies of *sanai* seed are developed locally and demonstrations become more and more effective attempts will be made to increase the acreage to 25, 40, 60 and 80 thousand acres respectively in the four succeeding years. One or two crops of cane each grown after *sanai* green manuring generally convince the cultivator of the utility of green manuring and a grower who has tried out *sanai* once or twice does not usually give up the practice. It is expected, therefore, that the cultivator whose green manuring has thus been subsidized will thereafter purchase *sanai* seed at full price, and the actual acreage of green manured cane will be considerably more than the total acreage of 2.2 lakh acres subsidized in this five year scheme.

Oilcakes and Sulphate of Ammonia.

A subsidy on fertilizers for top-dressing is necessary on account of the present high prices and transport charges of the fertilizers. The fertilizers proposed to be distributed are, as stated earlier, oil-cakes and sulphate of ammonia, but in special cases superphosphate or ammonium phosphate will also be distributed. Oil-cake will be mixed with sulphate of ammonia in the ratio of 5 maunds of cake to 1 maund of sulphate of ammonia. Six maunds of this mixture will contain 57 lb. of nitrogen which together with about 60 lb. of nitrogen supplied by green manuring or other bulky organic manures will make up the 100 lb. N. per acre dose. The rates of subsidy including the incidental transport and other charges on this mixture will be as follows :

1st year—Rs.6-12 per acre dose or Re.1-2 per maund.

2nd year—Rs.4-8 per acre dose or annas 12 per maund.

3rd year—Rs.3 per acre dose or annas 8 per maund.

4th year—Re.1-8 (incidental charges only) annas 4 per maund.

5th year—Re.1-8 (incidental charges only) annas 4 per maund.

Graded subsidies.

The rate of subsidy will be gradually reduced in the successive years and in the 4th and 5th years only incidental charges averaging to about annas 4 per maund will be allowed. The purpose of grading the subsidy as above is three-fold. Firstly in the early stages, a higher subsidy is necessary in order to encourage the cultivator to use the fertilizer mixture. When the cultivator has used the fertilizer and reaped its benefits, preferably in a half-field demonstration plot, he will be willing to purchase the fertilizers. But in order to habituate the cultivator to the practice and to introduce other cultivators to the practice of top-dressing, the subsidy will have to be continued during the ensuing years, albeit at lowered rates. Secondly, the price of oil cake and sulphate of ammonia may come down markedly during the next few years and with a fall in prices subsidies may not have to be as high as during the earlier period. Thirdly, with the expected increase in acreage of manured cane the available funds may not be sufficient to subsidize the distribution unless the rate of subsidy is also correspondingly reduced. The total cost of subsidizing the manurial programme drawn up with due regard to these factors is given in Appendix I.

Economics of the manurial schedule.

The economics of manuring need no discussion. *Sanai* alone will increase the income by Rs.150 to Rs.200 the cost of cultivation being about Rs.25 per acre. The 6 maunds of the mixture at full price is expected to cost about Rs.30 while the increased yield will fetch about Rs.125 per acre. *Sanai* will leave a slight residual effect on ratoons where the latter are kept and this will have to be supplemented by bulky organic manures, which should be applied to the ratoon at about 40 or 50 lb. N. per acre, besides the top-dressing.

Bulky organic manures.

While it was highly desirable to promote the manufacture of compost, cattle urine earth, etc., in the cultivators' holdings by small monetary inducements, it is not possible to undertake this within the limits of the allotted amount. Besides, the checking of the quantities of manure produced and of the subsidy to be paid thereon is not very feasible task, and therefore the following steps are proposed to be taken instead :

Factory compost.

- (1) A large amount of cattle dung, trash, cattle urine soaked earth collects in the factory yards. It may be roughly computed that every day of working of a factory of 800 tons capacity provides about 400 maunds of trash, 400 maunds of cattle dung and substantial quantities of cattle urine soaked in the earth. The total amount of nitrogen thus collected (excluding that soaked in the earth with the urine) per day would be roughly 80 lb. This material would lend itself excellently for the manufacture of compost ; it is only necessary to collect it in heaps, stir it occasionally by employing 2 or 3 sweepers in each factory. In the manufacture of compost the quantity of N. will be reduced to about 60 lbs. for one day's collection. In a crushing season of 120 days, each factory will be able to produce about 14,000 maunds of compost containing about 5,000 lb. of nitrogen. This compost can be offered to cultivators.

(2) In addition to this, each sulphitation factory of 800 tons capacity in a crushing season of 120 days produces about 2,000 tons of press mud containing about 15 tons or 30,000 lb. of nitrogen. This is already being offered to cultivators in certain factories free or at a nominal price for use as manure and the practice can be adopted at all factories and the material can be mixed with compost.

Filter Press mud.

(3) Side by side with this, propaganda and instruction to cultivators to produce bulky organic manures in their own holdings by the conservation of cattle dung and urine, manufacture of compost from crop wastes, will be continued and efforts will be made to increase the output.

Farm compost.

The total supply of N. in the above form at each factory site will be roughly 40,000 lb. The cost of producing this compost will not exceed Rs.500 per factory, and the compost can be sold to cultivators at a cost of less than one pice per maund.

Union study.

The quantity of this compost can possibly be increased by the addition of superfluous bagasse from the factory and the night-soil available in the factory colony during the crushing season. Further at certain of the factories at least, it would be possible to obtain town compost in wagon loads from such municipalities in the United Provinces as at present manufacture it. All this compost, together with press mud should be "rationed" to cultivators bringing cane to the factory, the quantity to be sold to each cultivator being proportional to the quantity of cane supplied to the factory by the cultivator. The special advantage of the system of this supply is that transport of this material to the cultivator's holding costs nothing and the availability of the manure will be an added attraction to the cultivator to bring cane to the factory. The quantity available per cultivator is about 20 lb. N. and this will be sufficient to supplement the bulky organics which the cultivator can manufacture on his own holding.

Seed supply—The varietal position in the reserved areas during the year 1945-46 is given in the statement below. Of the varieties mainly Co. 312 and another variety known as Manchua which is widely prevalent in the Eastern areas, are to be replaced as they are susceptible to red-rot and are giving steadily decreasing yields. Two new varieties, Co. 453 and Co. 527 which are giving higher yields are now approved for cultivation in certain ranges, and one or two new varieties, viz., Co. 464 and Co. S. 245, are expected to be released in the western and other tracts in the course of the next one or two years. These varieties together with Co. 421, Co. 313, Co. 356, Co. S. 109, Co. 395, Co. 398, Co. S. 76, etc. will make up the programme of varietal replacement during the next five years.

Proposals regarding seed supply.

New varieties.

Statement showing the existing varietal position for plant cane (1945-46) and the proposed acreages for varietal replacement

Range	Variety	Acreage 1945-46	Acreage to be replaced	Acreage to be replaced annually in the present scheme
Western	Co. 312	100,438	Acres.	
	Co. 421	21,562		
	Co. 313	6,996		
	Others	11,278		
	Total	140,274			112,000	30,000 acres (for 4 years).
Bhilkhand	Co. 312	44,118		
	Co. 421	34,749		
	Co. 343	8,352		
	Co. 527	1,194		
	Co. 290	14,048		
	Co. 356	1,195		
	Co. S. 146	704		
	Others	9,996		
Total	114,356	70,000	15,000 acres (for 4 years).	
Central	Co. 312	39,176		
	Co. 313	12,006		
	Co. 331	700		
	Co. 421	15,088		
	Co. 527	729		
	Others	9,500		
Total	77,200	50,000	17,000 acres (for a year).	
Mid-eastern	Co. 312	1,119		
	Co. 313	11,254		
	Co. 381	1,114		
	Co. 356	8,060		
	Co. 370	16,652		

Range	Variety	Acreage 1945-46	Acreage to be replaced	Acreage to be replaced annually in the present scheme
	Co. 385	..	2,053	
	Co. 393	..	5,833	
	Co. 421	..	15,215	
	Co.s. 109	..	2,002	
	Others	..	1,732	
	Total	..	65,114	20,000
				10,000 acres (for 2 years)
Eastern ..	Co. 313	..	10,303	
	Co. 356	..	15,322	
	Co. 109	..	4,845	
	Co. 370	..	14,344	
	Co. 395	..	13,573	
	Co. 393	..	6,676	
	Co. 453	..	41	
	Others	..	8,193	
	Total	..	73,297	23,000
				12,000 acres (for 2 years)
	GRAND TOTAL	..	275,000	

Seed nurseries.

Out of the total acreage to be so replaced, about 150,000 acres are expected to come within the scope of this scheme. For the varietal replacement of this acreage, a system of registered nurseries consisting of 1,200 secondary seed growers each will be about 2 acres under seed-cane will be started. The number of such secondary growers in each zone will be about 15. These 1,200 secondary growers will be supplied with seed-cane by 80 primary seed-cane growers, each of whom will have about 3 acres under seed-cane. The system will be as outlined below.

Seed Supply system

Seed growers	Number proposed	Acreage under seed cane with each grower	Expected net yield per acre	Sugarcane produced per grower	Total seed cane produced	
					Total Quantity	Sufficient to plant
Primary	..	80 3 acres	500 mds.	1,500 mds.	120,000	2,440
Secondary	..	1,200 2 ..	500 ..	1,000 ..	1,200,000	24,000

Watch and Ward.

The crops and the seed raised in these nurseries will be checked and certified for freedom from disease by Plant Protection Inspectors in each range.

Thus in the 2nd year non-approved and low yielding varieties will be replaced in about 24,000 acres, in addition to the acreage in which seed-replacement is carried out with locally-raised pure seed-cane, which will also be reserved with a subsidy. Since the 24,000 acres planted out with the subsidized seed will be in practically every village, the cane raised from this seed will to a large extent spread to the remaining area in the village under the guidance of the supervisor in the village. In four years, the entire area will be planted to new seed, and areas under the new varieties also will increase considerably.

The primary growers will be offered a subsidy at two annas per maund of cane sold as seed while the corresponding rate for secondary growers and other reservations will be one anna per maund. This subsidy is necessary in view of the fact that the crop meant for seed will have to be maintained in a disease-free condition, and the seed is generally taken by cultivators in the later part of the crushing season, when standing cane undergoes a considerable reduction in weight due to dryage. The acreage to be replaced under this scheme will be about 10,000 in the 1st year and about 34,000 acres annually during the next four years, including the seed growers' acreages. The seed supplies from seed growers will be supplemented by approved seed cane from Government farms, Factory farms and Research stations. The amounts set apart on this basis in appendix I include incidental charges for transport of seed cane as well as subsidies.

Half field demonstra-
tions.

Demonstrations—As stated in the foregoing paragraphs, about 40,000 half-field demonstrations will be carried out in the Cane Development zones. These will consist of the following demonstrable items of improved cultivation :

- (1) *Sanai* green manuring *versus* non-manuring.
- (2) Top-dressing by oil cakes and sulphate of ammonia mixture *versus* no top-dressing.
- (3) Early planting *versus* cultivator's practice.
- (4) Improved system of cultivation of plant cane, incorporating all the important recommendations *versus* his old method of sugarcane cultivation.
- (5) Improved system of cultivation of ratoons, incorporating all the important recommendations *versus* cultivator's present method of ratooning.

No subsidy or compensation of any kind will be paid on these demonstrations. These demonstrations will be carried out by the existing, as well as by the small staff which is proposed to be added to the existing organisation for securing full conviction and whole-hearted co-operation of the growers in intensifying development work.

Training of personnel—At present, short refresher courses are given to the Assistant Cane Development Officers and Junior A. C. D. Os. in cane cultivation, co-operation, marketing and development. It is very essential to give a good training to *kamdars* and supervisors also. It is, therefore, proposed to have six instructors two in the Eastern tract and two in the Western tract and two in the Central tract whose duty will be to train annually about 120 *kamdars* and supervisors in two batches of about 30 each at each of the three training centres. The course of instruction will include general agriculture principles, the improved system of cane cultivation, demonstration and marketing. Each course will last about two months and the instructors will be engaged in this work for about four months in the year, during the off-season. For about one month thereafter they will be themselves visiting the research stations to acquaint themselves with the results achieved and varieties selected for out-station trials or released for cultivation, and in general to increase and refresh their knowledge of sugarcane in its various aspects. During the remaining period they will carry out propaganda in the cane zones; this work will include attendance and demonstration in agricultural exhibitions, supply of propaganda material to various zones, cinema shows, lectures and inspection of demonstration plots. A substantial amount of exhibition material like charts, posters, sign-boards, show cases and models have to be prepared for intensifying propaganda and a good stock of such material will be built up in the course of the next three years. A cinematographic film showing improved cane cultivation and disease-control is under preparation, and this instructor-staff will be trained for lecturing and demonstrating this film in the factory yards and villages every year, along with general publicity work. This staff will meet a long-left need of the department, which has been handicapped in the past for want of suitable publicity and propaganda among the growers.

aining centres.

Propaganda among cultivators.

Watch and Ward against Diseases and Pests—It is proposed to have one Cane Protection Inspector attached to the Cane Development Officer in each range. This inspector will maintain a close watch on all cane crops with a view to locating all isolated cases of disease. He will carry out this work by his personal inspections and with the help of information received from time to time through Assistant Cane Development Officers, supervisors and other sources in the various zones. He will keep the Cane Development Officer well posted regarding the condition of the cane crops in the zones, organise campaigns for control measures on the appropriate scale in the event of outbreak of an epidemic, under the supervision of the Cane Development Officer and with the co-operation of the staff of the factory, society and the other allied departments. With the assistance of the factory staff he will check up as many crops reserved for seed as possible for freedom from disease-infection, he will also give lectures and demonstrations and hold exhibitions in connexion with the prevention and control of diseases and pests in his range and will in all aspects work in close collaboration with the staff of the Provincial Plant Protection Service and the research section. Many factories maintain some staff for this work, and others are anxious to find off season employment for their employees in cane development and disease control, and it is expected that with the assistance of such staff and the existing staff of the Cane Development Department, together with such staff as may be provided by the Co-operative Societies from time to time, an efficient watch and ward service will be organized in the province.

Plant Protection Service.

Staff—Within the limits of the allotted grant only the barest minimum of additional staff can be entertained. The categories of lower staff are proposed to be strengthened by the addition of 120 *kamdars* and 30 supervisors. To assist in the control of the work 10 A. C. D. Os. will be necessary. The above framework of the proposed development scheme makes necessary that in order to ensure the faithful execution of the plan from year to year the entire scheme should be conducted and properly co-ordinated by one officer in Class I Service who should have nothing to do with the administrative problems of the factories and the cane co-operative unions or the inter-departmental problems that necessarily arise. The departmental administrative work at the headquarters is itself exceedingly heavy, in addition innumerable problems arise in the day to day work concerning the regulation of cane supplies, deficiencies and surpluses, quality of cane, location of weighment centres, fixation and adjustments of prices, supply of wagons, detentions of carts, resolution of strikes and lock-outs, factory breakdowns, disputes between factories and societies or between factories themselves, offences against the Factory Control Act and a host of other problems. The execution of the 5-year plan can be a success only if a Development Co-ordination Officer is provided to co-ordinate all the development work conducted by the range staff. He will organize, conduct, and control the entire development work in all its aspects and will also be liaison officer for purposes of those development problems, which are common to other departments including the Research Station. The officer will have the following duties :

Staff.

Development and Co-ordination Officer.

- (1) Organization of seed supplies and distribution. Payment of subsidies and controlling the purity of seed.
- (2) Watch and Ward against diseases.
- (3) Distribution of manures and payment of subsidies thereon.
- (4) Training of personnel.
- (5) Field demonstrations.
- (6) Zonal trials in factory farms.

- (7) Milling tests of new varieties.
- (8) Propaganda, exhibitions and shows.
- (9) Publications, leaflets and circulars.
- (10) Advisory work on agriculture and development.
- (11) Zonal cane surveys.
- (12) Crop-cutting experiments.
- (13) Statistics of sugarcane; cane acreage crop-production and production of sugar, gur and *khandsari* sugar.
- (14) Development plans for individual zone, ranges and for the whole province.
- (15) Work of Supervisory Committees in zones, Cane Advisory Committees in ranges, etc.
- (16) Liaison work with the Research Section and the Agriculture Department.
- (17) Soil Extension Service.
- (18) Other allied responsibilities.

This officer should be a man of wide experience and ability with special knowledge of sugarcane in all its aspects but he need not have extensive administrative experience, to ensure a proper working of the co-ordinated development plan. As he will have to tour throughout the Province for the aggregate of several months in the years to ensure a proper working of the co-ordinated development plan, he should be provided with one technical assistant and one statistical assistant in Group I of the S. A. S. who will share the eighteen items of work noted above for giving assistance to the officer. For the necessary office work one Stenographer clerk and one Accountant will be needed. The need for six instructors in Group II S. A. S. for training the personnel and publicity work has already been emphasized. For the Watch and Ward work and the local checking of seed purity and disease eradication and control, one Cane Protection Inspector in Group I S. A. S. in each range is required.

The staff thus required is—

- (1) One Development Co-ordination Officer, Agricultural Service, Class I.
- (2) One Technical Assistant, Group I, S. A. S.
- (3) One Statistical Assistant, Group I, S. A. S.
- (4) Five Cane Protection Inspectors, Group I, S. A. S.
- (5) Six Instructors, Group II, S. A. S.
- (6) Ten Assistant Cane Development Officers, Group II, S. A. S.
- (7) Thirty supervisors.
- (8) One hundred and twenty *kamdars*.
- (9) One Stenographer clerk.
- (10) One Accountant.
- (11) One Senior Assistant.
- (12) One Office Assistant.
- (13) One Routine clerk.
- (14) Six Zonal clerks.
- (15) Two orderly peons.
- (16) Fifteen peons.
- (17) Thirty porters.

The estimate of pay, allowances, etc. of the above staff and the estimated figures for yearwise expenditure on each of the subsidized items of development are given in the appendices. The total expenditure of the scheme for the entire period of five years is approximately Rs.1,16,45,000 of which the share of the Indian Central Sugarcane Committee is approximately Rs.30,00,000 and that of the Provincial Government approximately Rs.86,45,000. The contribution of the Provincial Government includes a subsidy (Rs.10,00,000) and an expenditure on staff for development work (Rs.76,45,000). This staff is mostly engaged in development work; for general administration, reservation and bonding of cane for supply and the inspectorate of sugar-cum-sugarcane, the Provincial Government spends annually a sum exceeding Rs.2,43,000 or about Rs.12,15,000 in five years. The existing budget of the Cane Development Department which includes the staff engaged in development as well as that provided for the work of reservation, bonding, marketing, supply and inspection under the Factory Control Act, is shown in Appendix III. In addition to this, the Cane Development and Supply Unions maintain a large staff during the cane-crushing season for arranging the daily supplies of cane to the factory. From this, it is clear that portion of the Provincial Government's expenditure on the Cane Development Department which has been shown in this scheme as the Provincial Government's share in the present scheme goes almost solely to meet the costs of development work, and is itself well in excess of Rs.30 lakhs for five years even after making a liberal allowance for such of the other duties as are done by the staff indirectly towards development work, namely the organization of co-operative societies, improvement of communications, rural welfare, etc. which are not strictly among the items of development proposed in this scheme.

It may further be stated here that at the meeting of the Planning Sub-Committee of the Indian Central Sugarcane Committee held on the 22nd—24th of November, 1945, the nature of cane development work already being carried out by the Provincial Government in the United Provinces was discussed in relation to the conditions of equal

contribution to the scheme from the Provincial Government (*vide* Proceedings of the fourth meeting of the Indian Central Sugarcane Committee page 67) and the sub-committee agreed to the grant being given to the United Provinces against its present development programme, subject to certain conditions which the present scheme has fully met. It may be explained with reference to condition (a) of sub-committee that the factory zones are themselves situated in the most predominant cane areas where the largest quantities of *gur* and *khandsari* sugar are manufactured, and hence the proposals made in the present scheme aim at assisting both directly and indirectly in the development of cane for *gur* and *khandsari* sugar as well as for factory sugar, while at the same time facilitating and economizing this development work through the provision of the existing organization. With regard to condition (b) a watch and ward service for the protection of cane crops has been provided in the scheme. Finally with regard to (c) as has been explained above the staff and funds shown as the Provincial Government's share in the present self-contained scheme are almost entirely engaged in development work.

The scheme thus satisfies all the conditions and embodies the five most important items of development outlined by the committee, the remaining two items being under the purview of the Research Section. The cost estimates given in the appendices are subject to modification in the light of the recommendations of the United Provinces Pay Committee which are expected to come into force in the near future.

A. D. PANT
Cane Commissioner,
United Provinces

N. B.—*Vide* U. P. Government Rural Development (Cane) Department's notification no. 1560-S/XII-IC—16-1948, dated August 12, 1948 (Appendix V) the formation of Zonal Development Councils has been authorised with a view to implement the above plan.

APPENDIX I—Subsidies

	1st year	2nd year	3rd year	4th year	5th year	Total
<i>Irrigation wells</i>						
Number of wells proposed to be constructed	200	300	500	500	Nil	1,500
Subsidy Thousand rupees ..	75.0	112.5	187.5	187.5	Nil	562.5
Advances " "	75.0	112.5	187.5	187.5	Nil	562.5
Recovery of advances. " "	Nil	75.0	112.5	187.5	187.5	562.5
Net amount required. " "	150.0	150.0	262.5	187.5	—187.5 (minus)	562.5
<i>Water lifts</i>						
	Nos.					
Number of lifts to be provided approximately.	500	500	1,000	1,250	1,250	4,500
Subsidy Thousand rupees ..	40.0	40.0	80.0	97.0	97.0	354.0
<i>Manures</i>						
Sanai seed to be distributed Thousand maunds.	15	25	40	60	80	..
Total subsidy Thousand rupees ..	37.5	62.5	100	150	200	550
Oil cake and sulphate of ammonia mixture to be distributed Thousand maunds.	195	267	320	480	424	1,686
Total subsidy including incidental charges Thousand rupees.	220	200	160	120	106	806
<i>Seed supply</i>						
Subsidy on seed cane Thousand rupees ..	45	120	120	120	120	525.0
Total ..	492.5	572.5	722.5	674.5	335.5	2797.5

APPENDIX II

Existing and additional staff, contingencies, etc. and totals for the scheme

Serial number	Designation of posts and particulars	Number of posts		Scale of pay	1st year 1948-49	2nd year 1949-50	3rd year 1950-51	4th year 1951-52	5th year 1952-53	Total for 5 years	
		Exist- ing	Addi- tional							Existing	Additional
				Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<i>A.—Pay of staff—(a) General Development—</i>											
<i>1. At the Headquarters.</i>											
1	Cane Development and Co-ordination Officer	1	500—50—1,200	.. ..	6,000	6,600	7,200	7,800	8,400	..	36,000
2	Technical Assistant	1	200—15—350	.. ..	2,400	2,580	2,760	2,940	3,120	..	13,800
3	Senior Statistical Assistant	1	200—15—350	.. ..	2,400	2,580	2,760	2,940	3,120	..	13,800
4	Stenographer No. 1	1	100—5—125—E. B.—5—160— E.B.—10—200.	.. ..	1,200	1,260	1,320	1,380	1,440	..	6,600
5	Accountant	1	150—10—250—E.B.—10—350	.. ..	1,800	1,920	2,040	2,160	2,280	..	10,200
6	Senior Assistant	1	80—6—110—E.B.—6—140—E.B.— 10—200—E.B.—20—240.	.. ..	960	1,032	1,104	1,176	1,248	..	5,520
7	Office Assistant	1	80—6—110—E.B.—6—140	.. ..	960	1,032	1,104	1,176	1,248	..	5,520
8	Routine clerk	1	60—3—90—4—110	.. ..	720	756	792	828	864	..	3,960
9	Orderly peons	2	25— $\frac{1}{2}$ —30	.. ..	600	612	624	636	648	..	3,120
<i>(ii) In Factory Zones and Ranges</i>											
10	Cane Development Officers	5	200—650	.. ..	20,760	21,504	22,248	22,992	23,906	1,11,410	..
11	Assistant Cane Development Officers	143	140—220	.. ..	1,58,399	1,66,321	1,74,263	1,82,195	1,90,127	8,71,305	..
12	Assistant Cane Development Officers	10	120—6—210—E.B.—10—250	.. ..	14,400	15,120	15,840	16,560	17,280	..	79,200
13	Supervisors	402	30—40	.. ..	1,63,528	1,67,146	1,70,764	1,74,382	1,78,000	8,53,820	..
14	Supervisors	30	30— $1\frac{1}{2}$ —39— $1\frac{1}{2}$ —45—2—65	.. ..	10,800	11,340	11,880	12,420	12,960	..	59,400
15	Kamdars	1,082	20—25	.. ..	3,22,140	3,632	3,35,124	3,41,616	3,38,108	16,75,620	..
16	Kamdars	120	20— $\frac{1}{2}$ —25	.. ..	28,800	2,520	30,240	30,960	31,689	..	1,51,200

17	Peons	..	..	..	..	10	20-1/2-25	..	..	2,400	2,460	2,520	2,580	2,640	..	12,600
						5	25-1/2-30	..	..	1,500	1,530	1,560	1,590	1,620	..	7,800
18	Servants	..	..	..	..	198	7-13	..	..	36,348	36,348	36,348	36,348	36,348	1,81,740	..
19	Porters	..	..	..	..	30	7	..	..	2,520	2,520	2,520	2,520	2,520	..	12,600
20	Zonal clerks	..	..	..	..	6	60-3-90-4-110	..	..	4,320	4,536	4,572	4,968	5,184	..	23,760
21	Clerks (Zones Ranges and Headquarters)	..	..	..	..	121	25-160	..	..	67,148	70,104	73,060	76,016	78,972	3,65,300	..
<i>(b) Zonal Trials</i>																
22	Junior Agroinomical Assistants	..	..	..	..	12	120-6-210-10-250	..	..	17,280	18,144	19,008	19,872	20,736	..	95,040
23	Senior Entomological Assistant	..	..	..	..	1	200-15-350	..	..	2,400	2,580	2,760	2,940	3,120	..	13,800
24	Senior Mycological Assistant	..	..	..	..	1	200-15-350	..	..	2,400	2,580	2,760	2,940	3,120	..	13,800
25	Senior Statistical Assistant	..	..	..	..	1	200-15-350	..	..	2,400	2,580	2,760	2,940	3,120	..	13,800
26	Senior Fieldmen	..	..	..	..	12	75-5-120	..	..	10,800	11,520	12,240	12,960	13,680	..	61,200
27	Attendants	..	..	..	..	12	20-1/2-25	..	..	2,880	2,952	3,024	3,096	3,168	..	15,120
						2	25-1/2-30	..	..	600	612	624	636	648	..	3,120
<i>(c) Soil Extension</i>																
28	Senior Chemical Assistant	..	..	..	..	1	200-15-350	..	..	2,400	2,580	2,760	2,940	3,120	..	13,800
29	Junior Chemical Assistant	..	..	..	..	4	120-6-210-10-250	..	..	5,760	6,048	6,336	6,624	6,912	..	31,680
30	Laboratory Attendants	..	..	..	..	5	25-1/2-40	..	..	1,500	1,530	1,560	1,590	1,620	..	7,800
<i>(d) Training of staff</i>																
31	Instructor	..	..	..	..	6	120-6-210-10-250	..	..	8,640	9,072	9,504	9,926	10,368	..	47,520
<i>(e) Plant protection service (Watch and Ward)</i>																
32	Cane Protection Inspector	..	..	..	..	5	200-15-350	..	..	12,000	12,900	13,800	14,700	15,600	..	69,000
<i>B.—Allowances</i>																
	T. A. and other allowances (Existing)	..	..	..	..					2,28,492	2,28,492	2,28,492	2,28,492	2,28,492	11,42,460	..
	Cost of Living Allowances (Existing)	..	..	..	..					4,66,681	4,66,681	4,66,681	4,66,681	4,66,681	23,33,405	..
	Travelling Allowances and other allowances (Additional).	..	..	..	..					39,000	45,500	45,500	45,500	46,000	..	2,21,500
	Cost of Living Allowance and Dearness Allowance (Additional).	..	..	..	..					28,938	27,474	27,496	28,218	31,088	..	1,43,214

Serial number	Designation of posts and particulars	Number of posts		Scale of pay	1st year 1948-49	2nd year 1949-50	3rd year 1950-51	4th year 1951-52	5th year 1952-53	Total for 5 years	
		Existing	Additional							Existing	Additional
				Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<i>C—Contingencies and Miscellaneous</i>											
	Contingencies and Miscellaneous (Existing) .. .. .	..	..	..	22,000	22,000	22,000	22,000	22,000	1,10,000	..
	Contingencies and Miscellaneous Development .. .. .	..	..	..	1,600	1,600	1,600	1,600	1,600	..	8,000
	Contingencies (Zonal Trials) .. .. .	..	..	..	1,400	1,400	1,400	1,400	1,400	..	7,000
	Contingencies (Soil Extension) .. .. .	..	..	..	3,250	3,250	3,250	3,250	3,250	..	16,250
<i>D—Non-recurring expenditure</i>											
	Office equipment including 2 Calculating Machines .. .. .	..	..	..	12,000	..	..	..	..	..	12,000
	Equipment for Zonal Centres .. .. .	..	..	..	3,500	..	..	..	..	..	3,500
	Equipment for Soil Extension .. .. .	..	..	..	2,000	..	..	..	..	..	2,000
	Total ..				17,28,024	17,44,948	17,74,378	18,04,498	18,37,436	76,45,060	12,44,224
	Total of Appendix I ..				4,92,500	5,72,500	7,22,500	6,74,500	3,35,500	10,00,000	(c) 17,97,500
					22,25,524	23,17,448	24,96,878	24,78,998	21,72,936	(a) 86,45,060	(b) 30,41,724

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Grand Total of (a) and (b) Rs. 1,16,86,784.
(c) Excluding Rs.10 lakhs existing subsidy from the Provincial Government.

APPENDIX III

L.—Budget estimates under Cane development and regulation of Sugar Industry

	Numbers		Actuals 1944-45	Budget estimate 1945-46	Revised estimate 1945-46	Preliminary budget estimate 1946-47	
	1945-46	1946-47					
				Rs.	Rs.	Rs.	Rs.
(a) Cane Commissioner (headquarters)—							
1. Pay of officers—							
Cane Commissioner (1,400 +150)	{	Voted ..	1	..	..	..	18,700
		Charged ..	..	16,805	15,900	..	..
Total	{	Voted ..	..	..	..	14,700	18,700
		Charged ..	..	16,805	18,900	2,100	..
2. Pay of establishment—							
Clerks (35—250) and servants (10—14)	23	28	15,119	15,200	16,000	17,300	
3. Allowances and Honoraria—							
Travelling and other allow- ances	{	Voted ..	..	..	2,400	..	8,490
		Charged ..	..	..	..	6,000	..
Compensatory dearness or war allowance	..	..	..	3,900	..	8,709	
Total	{	Voted ..	..	7,561	6,300	16,100	17,100
		Charged ..	..	4,559	6,000	300	..
4. Contingencies—							
Office rent	..	..	..	2,600	..	2,600	
Miscellaneous office contingencies	..	..	..	5,700	..	5,700	
Total	..	..	7,193	8,300	8,000	8,300	
Total, Cane Commissioner (headquarters)	{	Voted ..	..	30,173	29,800	54,600	61,400
		Charged ..	..	21,364	24,900	2,400	..
(b) Cane Commissioner (supervising) staff—							
1. Pay of Officers—							
Cane Development Officers (200—650)	5	5	..	19,000	..	21,500	
Deputy Cane Development Officers (175— 650)	3	3	..	9,400	..	9,700	
Total	..	..	26,036	28,400	36,000	31,200	
2. Pay of establishment—							
Assistant Cane Development Officers and supervisors (40—230)	564	564	..	2,96,400	..	3,14,400	
Kamdars (15)	1,082	1,082	..	1,89,800	..	1,94,800	
Clerks (25—160)	121	121	..	59,506	..	65,100	
Servants (7—13)	198	198	..	24,500	..	24,500	
Total	..	..	6,75,833	5,70,200	5,70,200	5,98,800	
3. Allowances and Honoraria—							
Travelling and other allowances	..	..	..	1,40,000	..	1,90,000	
Compensatory dearness or war allowance	..	..	..	2,56,000	..	2,50,000	
Total	..	..	3,86,837	4,06,000	5,00,000	5,40,080	

	Numbers		Actuals 1944-45	Budget estimate 1945-46	Revised estimate 1945-46	Preliminary budget estimate 1946-47	
	1945-46	1946-47					
4. Contingencies—							
Miscellaneous office contingencies	50,000	..	50,000	
Tour charges	500	..	8,500	
Office rent	8,100	..	8,100	
Subsidy for zones	2,00,000	..	2,00,000	
Miscellaneous zonal contingencies	22,000	..	22,000	
Total	2,68,043	2,80,600	2,60,600	2,60,600	
Total, Cane Commissioner (supervising staff)	12,66,769	12,85,200	13,86,800	14,80,600	
(c) Staff for reservation and bonding—							
1. Pay of Officers—							
Assistant Cane Commissioner (370—810)	1	1	6,009	7,300	4,700	4,500	
2. Pay of establishment—							
Cane Assistants (50)	..	30	30	9,000	..	9,000	
Clerks (35—44)	..	2	2	1,300	..	1,400	
Servants (10—1/2—14)	..	2	2	300	..	300	
Total	9,409	10,600	10,600	10,700	
3. Allowances and Honoraria—							
Travelling and other allowances	8,000	..	10,000	
Compensatory dearness or war allowance	3,600	..	4,000	
Total	10,780	11,800	11,500	14,000	
4. Contingencies—							
Miscellaneous office contingencies	300	..	300	
Cost of printing of <i>khasras</i> , etc.	4,600	..	4,600	
Cost of <i>partial</i> of cane	38,300	..	38,300	
Total	43,665	43,200	70,000	43,200	
Total, Staff for reservation and bonding..	69,863	72,600	70,000	72,400	
(d) Sugar-cum-sugarcane Inspectorate—							
1. Pay of Officers—							
Cane Inspectors (300—550)	..	6	6	11,163	31,900	22,000	21,300
2. Pay of establishment—							
Clerks (35—44) and servants (10—1/2—14)	18	18	1,334	4,000	4,000	5,400	
3. Allowances and Honoraria—							
Travelling and other allowances	33,000	..	28,500	
Compensatory dearness or war allowance	5,300	..	8,509	
Total	14,884	38,300	95,000	63,700	
4. Contingencies—							
Miscellaneous office contingencies	825	2,400	2,400	2,400
5. Deduct—Amount transferred to 63— Extraordinary charges.	14,103	38,300	26,700	33,000
Total, Cane-cum-sugarcane Inspectorate..	14,103	38,300	26,700	33,100	

APPENDIX IV

Expenses for the construction and working of Tube-wells (worked by Diesel Oil)

	Approx. Rs.
<i>Non-recurring—</i>	
(1) Cost of sinking 7" well	6,600
(2) Cost of crude oil engine and its setting up	2,200
(3) Pump set	500
(4) Masonry work (well, tank, shed, etc.)	2,500
Total	11,800

Irrigation channels have not been taken in account in the above estimates. The expenses for this will vary according to channel lengths which will depend on the situation of tube well.

Recurring, annual—(1) *Staff expenses—*

(a) Engine drivers—3 at Rs.60 + Rs.27 dearness allowance each per month each Rs.261 × 12	3,132
(b) Cleaners 3 at Rs.30 + Rs.22 dearness allowance per month each Rs.156 × 12	1,872
Total	5,004

Rs. a. p.

(2) *Oil and lubricants—*

(a) Crude oil 5 gallons for 8 hours working at Re.1 per gallon	5	0	0
(b) D. T. Oil 4 lbs. per 8 hours working at annas 8 per lb.	2	0	0
(c) Grease, 1 chhatak	0	1	0
(d) Cotton waste, 2 chhatak	0	2	0
Total	7	3	0

8 months expenses on 24 hours' working Rs.7-3 × 3 × 30 × 8 5,175
 Grand total of expenses 10,179

Income—

	Rs.
Annual income on 8 months' working for 24 hours daily at Rs.2 per hour—24 × 30 × 8 × 2	11,520
Profit	1,341

In case of cane, water would be allowed on credit and charges realized during the season from cane supplies. In case of other crops charges will be realised daily in cash.

APPENDIX V

GOVERNMENT OF THE UNITED PROVINCES

RURAL DEVELOPMENT (CANE) DEPARTMENT

No. 1560-S/XII-C—16-1948

Dated Lucknow, August 12, 1948

NOTIFICATION
MISCELLANEOUS

IN exercise of the power conferred by section 30 of the United Provinces Sugar Factories Control Act, 1938 (U. P. Act I of 1938) the Governor is pleased to make the following amendments to the United Provinces Sugar Factories Control Rules, 1938, published with notification no. 7135-A/XII-A, dated October 6, 1938 :

Amendments

1. For the existing rule 4-B the following shall be substituted :

Rule 4-B—Cane Development Councils

- 4-B. (1) The Cane Commissioner may by order establish a Cane Development Council for the reserved area of a factory or for any area specified in the order.
- (2) The Council shall consist of two representatives each of the factory and the cane growers, Chairman of the District Development Association, Development and Co-ordination Officer and the Secretary of the Council.
- The Chairman of the District Development Association may nominate in writing any other non-official member of the Association representing the interests of the local area, to function as a member of the Council in his absence and such nomination shall remain in force until it is rescinded and intimation thereof is given to the Secretary of the Council in writing.
- (3) The Council will elect its own Chairman. The Cane Development Officer, or the Deputy Cane Development Officer or the Additional Deputy Cane Development Officer of the Range shall be the Secretary and the Assistant Cane Development Officer of the zone shall be the Assistant Secretary of the Council.
- (4) The Chairman, Secretary and members of the Council shall hold office for such period (not exceeding 2 years) as the Cane Commissioner may in his order specify.
- (5) The functions of the Council shall be—
- (i) to consider and approve the programme of development for the zone ;
 - (ii) to devise ways and means for the execution of the development plan in all its essentials such as cane varieties, cane seed, sowing programme, fertilizers and manures ;
 - (iii) to undertake the development of irrigation and other agricultural facilities in the zone ;
 - (iv) to take necessary steps for the prevention and control of diseases and pests and to render all possible help in the soil extension work ;
 - (v) to administer the funds at its disposal for the execution of the development plan in its various aspects or any other approved development scheme subject to the general or special directions of the Cane Commissioner and
 - (vi) to perform other functions pertaining and conducive to the general development of the zone.
- (6) The funds of the Council shall consist of—
- (i) grants from the Indian Central Sugarcane Committee ;
 - (ii) grants from the Provincial Government including subsidies, etc. ;
 - (iii) contributions from the factory, especially from the unpaid commission on direct purchases ;
 - (iv) contributions from Cane-growers Co-operative Society as fixed by the Cane Commissioner, subject to a maximum of 33 per cent. of the income of the society from commission ,
 - (v) contributions from other departments or organizations or funds, if any.

- (7) (i) (a) An annual budget shall be drawn up by the Council and submitted to the Cane Commissioner for sanction before the end of each financial year, and no expenditure shall be incurred unless it has been provided for in the budget. Expenditure under the sanctioned items in the budget shall not be exceeded without obtaining prior approval of the Cane Commissioner for the amended budget or specified item thereof.
- (b) The Cane Commissioner may at any time during the currency of the budget order expenditure on specified items and enforce payment therefor from the funds of the Council, where due to any unusual circumstances of default of the Council such a course is considered necessary for meeting any sudden, emergent or unforeseen contingency.
- (ii) The funds of the Council shall be kept in a Scheduled Bank or a Co-operative Bank approved by the Cane Commissioner and shall be operated by the Secretary under the control of the Chairman subject to the directions of the Cane Commissioner regarding any special or general item or items of income or expenditure. The Secretary will maintain proper accounts, registers and vouchers of all income and expenditure. The accounts will be audited to by a duly appointed auditor. The Audit Notes will be submitted to the Cane Commissioner (exercising the powers of the Registrar, Co-operative Societies, United Provinces).
- (8) (i) The Council shall be bound to carry out the instructions issued by the Cane Commissioner from time to time. The Cane Commissioner may veto or vary any resolution or decision of the Council after assigning reasons.
- (ii) When the Cane Commissioner is satisfied that the Zonal Development Council constituted for the reserved area of a factory, or any member of the Council, is not functioning properly or is conducting its affairs in a manner prejudicial to its interests which is likely to hinder the furtherance of the objects of the Council, he may suspend the Council in whole or in part as a temporary measure and make suitable arrangements for the performance of the functions at the Council and custody of its records and assets as he deems fit, pending the establishment of a fresh Council or the restoration of the old Council as the case may be.
- (9) The Secretary may, subject to the control of the Chairman, convene meetings of the Council as often as may be necessary and shall do so when required by any two members of the Council. He shall circulate agenda, keep minutes of the meetings, carry on correspondence on behalf of the Council and discharge such other functions as may be necessary for the proper performance of his duties. He shall forward a copy of the proceedings of the meetings to the Cane Commissioner within a week of the date on which a meeting is held.
- (10) The Cane Commissioner may from time to time frame subsidiary rules not inconsistent with any of the provisions of the United Provinces Sugar Factories Control Act or Rules framed thereunder.
- (11) The procedure prescribed in Appendix I-A to these rules shall be followed at the meetings of the Council.
2. In Appendix I-A for the word "Committee" wherever it occurs the word "Council" shall be *substituted*.

By order,
A. N. JHA,
Secretary.

No. 1560-S(i)/XII-C—16-1948

COPY forwarded, for information to—

- (1) The Cane Commissioner, United Provinces, with reference to his demi-official letter no. 251/C, dated June 19, 1948.
- (2) The Chairman, Sugar Commission, United Provinces and Bihar, Kanpur.
- (3) The Director, Indian Institute of Sugar Technology, Kanpur.
- (4) The Secretary to the Government of Bihar, Development and Employment Department, Patna.
- (5) The Secretary, Indian Sugar Syndicate Ltd., Tilaknagar, Kanpur.
- (6) The Secretary, Indian Sugar Mills Association, 102-A, Netaji Subhas Road, Calcutta.

By order,
R. N. MATHUR,
*Additional Under Secretary to Government,
United Provinces.*

OFFICE OF THE CANE COMMISSIONER, UNITED PROVINCES

No. 57/C-II—1-46

Dated Lucknow, August 21, 1948

COPIES forwarded for information to—

- (1) All Cane Development Councils in the United Provinces.
- (2) All Sugar Factories in the United Provinces.
- (3) Chairmen, District Development Associations concerned.
- (4) District Magistrates concerned.
- (5) Development Commissioner, United Provinces, Civil Secretariat, United Provinces.
- (6) All C. D. Os. and Dy. C. D. Os.
- (7) All Co-operative Cane Development and Marketing Unions.

A. D. PANT,
Cane Commissioner.