

growing on sorghum and sugarcane. Many of the dicotyledonous weeds are killed. But some like *Trianthema portulacastrum* and *T. decandra* common in garden lands are not affected by 'Fernozone', a 2-4-D preparation. "Dicotox" another proprietary preparation containing 2-4-D is however toxic to these weeds. The action on *Cyperus rotundus* is not permanent. The aerial shoots are destroyed, but later new shoots develop from under-ground tubers. Fernozone has not given consistent results with *Spergula arvensis*. On golf links *Centella asiatica* is completely destroyed by these.

These substances are highly toxic to cotton, cabbages and cruciferous vegetables. Hence the use of these substances has to be undertaken with care and air-drifts towards the susceptible crops avoided. It cannot be said with certainty whether these substances will ever enjoy the same popularity in India as in western countries owing to their high cost and uncertain behaviour. Two of the most troublesome weeds in cultivated lands in India are *Cynodon dactylon* and *Cyperus rotundus* and against these, these substances are not satisfactory. They have no effect on the former and only partial effect on the latter. Another word of caution has to be given. The continued use of these substances may lead to other harmful after-effects. It has been found that when they are applied to the soil they prevent the sprouting of weed seeds and crop seeds for over 2 months. This is a pointer towards the cumulative harmful effect if used continuously.

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The Madras City Milk Plan

By

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It is a well-known fact that milk supply in Madras City is not only inadequate but also the quality of milk has no bearing on the very high price paid. From various surveys made with regard to the exact number of milch animals in the City and taking the 2,000 licenses held by the City milkmen into account the total number of animals is computed to be 12,248 cattle and buffaloes. These are distributed in the 50 divisions comprising the City of Madras. Taking an average of about 8,000 female stock in milk and daily average yield at 10 lb. per animal the total milk yield would be about 80,000 lb. The demand of the city is not wholly met by the milkmen. The Government Milk Factory distributes about 8,000 lb. of milk per day. The Co-operative Milk Supply Societies supply about 28,000 lb. collecting from various centres from both within and outside the limits of the city up to 35 miles radius. Added to this, milk is brought by trains, cyclists and buses

and the quantity handled by them would roughly be about 24,000 lb. The total quantity of whole milk distributed within the city would be about 1,40,000 lb. The population of the Madras City was 12.35 lakhs in 1946 according to the City Rationing Officer. It may now be taken as not less than 14 lakhs. Based on the above calculations the average per capita consumption of milk is 1.6 ozs. which is perhaps the lowest in the world. It is therefore imperative in the interest of the nation that the average milk consumption of the citizen should be increased to 16 ozs. per capita per day.

2. I have had the privilege of studying the Bombay Milk Plan drawn up by Dr. Z. R. Kothawalla, Dairy Development Adviser to the Government of India, which is being so ably executed by Mr. D. N. Khurody, the Milk Commissioner of Bombay. The situation at Bombay is remarkable in that there is a dense population and large units of buffaloes in milk are stalled in what are known in Bombay as "Stables". These stables are in varying degrees of insanitary conditions and they are owned by powerful capitalists. There are about 50,000 milch buffaloes within the City. Each owner may have from 250 to 500 milch buffaloes in milk which means an investment of Rs. 2½ to 5 lakhs on animals alone. As the capitalist look only to mere gain there has been callous neglect of young stock and dry animals which has resulted in incalculable loss to the nation. Now the Milk Commissioner with considerable powers and a well-equipped staff is in the process of carrying out the Bombay Milk Plan. The plan is to remove all the stalls out of Bombay and to efficiently co-ordinate production and supply. The Milk Commissioner has already taken over more than 25% of the milk supply of the City. His organisation purchases milk on quality basis from producers including co-operative milk societies. The milk production is not confined to the City. About 50,000 lb. of milk are transported from Anand, about 260 miles from Bombay. Milk is suitably treated and distributed by the Commissioner to various centres. Added to this a very big scheme worth two crores is being completed at a place about 25 miles from Bombay. In this locality a colony of dairy farms for production and processing of milk is being built. When it is complete about 10,000 milch animals will be sent out of Bombay City to be housed here. The capitalists who are producers will live in these farms and give all their production to the Commissioner who will process and supply milk to the consumers. When it is completed it will be a wonderful achievement in the milk supply problem in the East. In order to solve problems like milk prices and distribution centres etc. the Commissioner has two Advisory Committees, (1) the producer committee which includes owners of cattle and co-operative milk unions and (2) a committee composed of consumers only. This set-up is the beginning of an organisation similar to the Milk Marketing Board of England.

3. The Milk Commissioner is directly under the Ministry of Food, Bombay and is paid about Rs. 2,000/- per mensem. He is almost a dictator on the subject of milk supply. He has an engineering section, co-operative section and a technical section under his control. From what I have seen of the whole organisation and its working, credit goes to Mr. Khurody and to the Hon'ble Minister concerned, who spares no pains to make the scheme a success.

The Bombay Milk Plan in Anand has also become a reality. Out of 30 dairy farm units in an area of 3,500 acres, 17 farms units have been completed and about 8,000 cattle have occupied them. All the activities connected with milk production and distribution are in full swing. The milk producer gets his fodder etc. at reasonable rates and has no need to worry about distribution. Reports given by various experts have already justified the working of the scheme.

4. Coming to Madras, there are certain outstanding differences from Bombay. The density of human population is not the same. The milk trade is in the hands of very small milkmen and none of them can be compared with the capitalists of Bombay. Most of the owners are poor and keep cows as a side business to earn a living. Another remarkable difference is that in Madras the milkmen keep mostly cows and only few buffaloes. Credit is due to these milkmen for experimenting with cattle breeding and producing cross breeds which certainly give high averages of milk as compared with the over-rated Ongole, breed. The un-hygienic conditions, malpractices practised and the poor quality of milk and the deterioration of cattle are features already known to us and need no elaboration. In addition to individual milkmen, there are the co-operative milk societies and the unions which are contributing, though in an inefficient way, to the milk supply to Madras City. In addition there has been a proposal to evacuate all the milkmen from Madras but in my opinion, it is not only costly but also impracticable. Most of the milkmen do not depend on the milk trade alone. Some are low paid servants, some individual owners have milk surplus over their family requirements and others are adventurers who have a hand in many things. None of them will go out of Madras, because of their multiple professions.

5. The real problem to be solved is to provide adequate and wholesome milk supply to the City of Madras. Having considered all aspects of milk supply, I placed the Madras City Milk Plan before Government November in 1948. Since presenting the above proposals, there have been criticisms from various angles. The Director of Agriculture, the Board of Revenue, the Registrar of Co-operative Societies, Madras, the Dairy Development Officer, the Chief Conservator of Forests and the Commissioner of the Madras Corporation have given their considered views. Bearing all that have been said for and against the original scheme, the following proposals are made for consideration.

6. Unlike Bombay vested interests are not serious and the Commissioner of the Premier Corporation, Madras is enthusiastic to solve the problem of milk supply to the citizens of Madras. I gather from the Madras Milkmen Associations that a scheme on the lines of Bombay City Milk scheme would be welcome in the interest of widespread milk production. The situation in Madras, therefore, makes it easier to launch the programme which I am outlining below.

7. Before the plan can be launched, it is essential that a first-rate Milk Commissioner is employed. As his powers will be varied and great, to make a real success of the scheme, he should be directly under the Minister for Food as is the case in Bombay. The function of the Milk Commissioner will be to organise milk production outside the city

limits by gradually removing the milkmen from within the city and supply wholesome milk to the citizens of Madras at reasonable rates. All the powers that are vested in the Milk Commissioner of Bombay should be vested in the Milk Commissioner here. He will also take steps for salvage of dry cattle and young stock.

8. The programme for doing this will be as detailed below :

The targets are to see that all milk produced is outside the city of Madras and that milk consumption per capita is increased gradually to 16 ozs. The distance from which milk can be brought is dependent on factors like high production, transport facilities and cost of production.

(i) In view of the inadequate production, it is imperative to step up production of milk. It is not enough to deplete one area to supply another area, as is now done by Co-operative Milk Societies. One common factor throughout India including Anand is the non-availability of milk to the producer and even public the in the areas where milk is produced thereby causing very grave set-back to health in such areas. So, what is required is to step up production wherever possible. This can be achieved by importation of better cattle, judicious breeding in its various aspects which need not be enlarged upon here and scientific management to ensure maximum and continued supply. The beginning for high production will be a large-scale Dairy Farm at Vandalur with dry and young stock farms in the Gudalur Reserve Forest area. The Chief Conservator of Forests is not in favour of deforestation. If the Government agree with his views, the Milk Commissioner will find other areas and even private land for purchase for the purpose.

In view of the fact that Part I-A of Dr. Talati's scheme will be taken up by the Corporation of Madras, it is imperative that the Madras City Milk Plan should be made to start simultaneously and not very far from the area selected.

Each dairy farm should be at least 350 acres in extent. Each farm will have at least 500 animals in milk consisting of 100 Sahiwals or Sindhis or Tharparkars, 50 Cross-breds and 350 buffaloes. The cows are very difficult to get and adjustment has to be made in practice. There are a good number of cross-breds in Madras. The best of them can be taken over from milkmen who do not wish to carry on the trade. This dairy farm will have stalls to house about 100 milch cows of such of the regular milkmen, who wish to continue their profession. All the milk produced by them will be handed over to the dairy which will process and send the milk to the depots in the City for distribution. This dairy will be able to supply about 6,000 lb. of milk per day but will take any quantity of milk from surrounding areas for processing.

(ii) As this programme is in progress, it is for the Milk Commissioner to see which of the wards will be closed to local milkmen. While he will not hinder private owners keeping cows for their household use, he will also assist to organise on private or joint-stock company basis dairy farms outside the City and undertake to purchase all their production on quality basis.

(iii) The Commissioner will also create other farms so as to increase the dairy farms outside the city and give facilities to milkmen, who are not able to house their cattle in the dairy farms. At least ten large-scale dairy farms would be required to maintain the present level of milk supply. When this has been achieved the Milk Commissioner will take over all the milk produced by the Co-operative Societies whether in or outside the city and give adequate time for the Co-operative Societies within the city to move out of the city.

(iv) The Milk Commissioner will encourage the creation of milk societies outside the city limits and purchase all the milk produced by them. When dairy farms are created outside the city the bulls and the surplus female stock from dairy farms will go a long way to increase better cattle and increase the production in the area.

All the loose milk that come by buses, trains, cyclists etc. will be taken over by the Milk Commissioner at convenient points.

(v) There will be three large creameries, one for all milk coming from the South, one for all milk coming from West and another for all milk coming from North. These will be located at suitable and convenient places. All the milk received here will be processed and sent to distribution points in the City. These points will be organised according to wards that are being closed down for commercial cow keeping.

(vi) The Milk Commissioner will arrange for the supply of fodder and concentrates etc. to all the dairy farms and milk unions that are under his control.

(vii) It is imperative to organise a number of dry stock farms. The ones already created will be taken over by the Milk Commissioner so that he can regulate admission from different areas. He will also see to the proper disposal of calves.

(viii) When on the one hand milk supply and distribution are being regulated it would be necessary to regulate breeding of cattle and conservation of the same. So the Milk Commissioner will have sections which will deal with maintenance of records of all farms under his control. It is needless to emphasise that the use of various types of bulls will become imperative and artificial insemination will become a routine in the management of stock farms.

(ix) By this method it ought to be possible for the Milk Commissioner to completely organise the milk supply within a period of 5 to 10 years. But in order to achieve this, it is imperative that the best type of man is recruited for the post of Milk Commissioner and each department under him is manned by men suited to the post and he is given full support by the Government as is being done at Bombay. There are different aspects of the dairy industry that need men, who are specialised in the branch to which they are put in charge.

The accompanying statements show the details of the organisation proposed in the light of the above proposals.

APPENDIX I

Proposed sources of supply or production of milk, with estimated quantities of milk per day

	Lb.
1. Milk produced at the ten dairy farms at 5,000 lb. per farm per day	50,000
2. Milk to be purchased through Govt. Milk Factory ...	8,000
3. Milk to be purchased from Co-operative Milk Supply Societies ...	28,000
4. Milk to be purchased through cyclists etc. ...	24,000
5. Production of milk by female stock in the city ...	80,090
Total per day ...	1,90,000

APPENDIX II

	Non-recurring. Rs.	Recurring. Rs.
Buildings :		
Milking sheds for 650 animals including cows of Madras city milk-men ...	1,50,000	
Sheds for young stock, store rooms, office buildings Veterinary Hospital buildings, Dairy buildings for processing milk ...	90,000	
Calving pens for 100 animals ...	10,000	
Quarters for the staff, 50 milkmen and milk men from Madras city ...	1,25,000	
Livestock :		
650 animals (milch) comprising of 200 cross-bred cows and 150 pure-bred cows and 200 buffaloes at Rs. 800/- each ...	5,20,000	
10 breeding bulls at Rs. 1,000 each ...	10,000	
10 pairs of work bullocks at Rs. 1,500 per pair ...	15,000	
Other incidental expenses such as transport, sales tax etc. ...	5,000	
Deadstock :		
Agricultural implements and other appliances ...	30,000	
Dairy equipment for clean milk production ...	25,000	
One lorry for transport of fodder, manure etc. ...	15,000	
6 bullock carts at Rs. 500/- each ...	3,000	
1 jeep for general purposes ...	9,000	
Office furniture ...	5,000	
Establishment :		
Cost of feeding of 750 milch cows at Re 1/- per day per cow on an average (650 animals of Dairy farm and 100 animal of milk men.) ...		2,74,000
Repairs and upkeep of plant and machinery and buildings. ...		10,000
Renewal purchase of livestock at 100 animals per year		80,000

Staff :

One Dairy Manager on 260-700 scale	...	3,120
2 Assistant Dairy Managers (140-250)	...	3,360
1 Agricultural Subordinate (100-220)	...	1,200
4 Fieldmen (45-60)	...	2,160
4 Maistries (40-45)	...	1,920
1 Stockman compounder (35-60)	...	420
50 permanent labourers at Rs. 15 p.m.	...	9,000
1 Cleaner at Rs. 15 p.m.	...	180
1 Driver at Rs. 45 p.m. (45-80)	...	540
10 Watchmen and coolies at Rs. 15 p.m. each	...	1,800
50 Milkmen at Rs. 15 p.m. each	...	9,000
30 Calf boys at Rs. 15 p. m. each	...	5,400

Office :

One Junior Superintendent (140-190)	...	1,680
One Upper division clerk (80-110)	...	960
2 Lower division clerks (45-90)	...	1,080
One Store keeper (45-90)	...	540
1 Typist (45-90 plus Rs. 10 special pay)	...	660
Peons 4. (18-25)	...	864
Total for one Dairy Farm	Rs. 10,12,000	4,07,884
Total for ten dairy farms	Rs. 1.01,20,000	40,78,840

Note : The cost of land has not been included as it is presumed that Government will take an active interest in the scheme and allot Government lands including forest areas or acquire private lands for the purpose.

APPENDIX III

Dry Stock Farms.	Non-recurring. Rs.	Recurring. Rs.
Buildings :		
Sheds, quarters for the staff etc,	... 1,50,000	
One bull at Rs. 1,000	... 1,000	
Deadstock :		
Machinery, transport vehicles, agricultural implements etc.,	... 1,00,000	
Establishment :		
Cost of maintaining dry stock 300 at Rs.15/- p.m. ...		54,000
Cost of maintaining young stock 200 at Rs. 30/- p.m. ...		72,000
Staff :		
One Veterinary Assistant Surgeon (140-250)	...	1,680
One Senior Inspector of Co-operative Societies (90-120)	...	1,080
One Stockman compounder (35-60)	...	420
2 Peons 18-25)	...	432
One head cooly at Rs. 15/-	...	180
8 Cattlemen at Rs. 15/- each p.m.	...	1,440
Two sweepers at Rs. 15/- each p.m.	...	360
One bull attendant at Rs. 15/- each p.m.	...	180
One driver (45-60)	...	540
One cleaner at Rs. 15/- p m.	...	180
Total for one farm	2,51,000	1,32,490
Total for 10 dry stock farms	25,10,000	13,24,900

APPENDIX IV

Veterinary & Disease Control Centre.

	Non-recurring. Rs.	Recurring. Rs.
Buildings for staff, in-patient ward etc.	... 50,000	
Cost of one jeep	... 9,000	
Medicines and appliances etc.	... 6,000	

Establishment :

One Superintendent (260-700)	...	3,120
Six Veterinary Asst. Surgeons (140-250)	...	10,080
Six Veterinary & Livestock Inspectors (60-4-120)	...	4,320
Four Stockmen compounders (35-60)	...	1,680
20 mazdoors at Rs. 15/- each p.m.	...	3,600
One head clerk (80-125)	...	960
One Lower Division clerk (45-90)	...	540
One typist (45-90) with special pay of Rs. 10/- p. m.	...	660
Two peons (18-90)	...	432
Medicines and appliances	...	5,000
Total	... <u>65,000</u>	<u>30,362</u>

Note: This centre will render veterinary aid and other help to all the 10 dairy farms and 10 dry stock farms. The Superintendent will exercise control over the 10 dry stock farms.

APPENDIX V.

Breeding Centre:

	Non-recurring Rs.	Recurring Rs.
Buildings, Sheds, quarters etc.	... 50,000	
Artificial Insemination equipment	... 10,000	
One Jeep well-equipped for the transportation of semen	... 9,000	
Two Motor Cycles at Rs. 4,000/- each	... 8,000	
Artificial Insemination, running expenditure	...	5,000

Establishment :

One Superintendent trained in Artificial Insemination and Genetics	...	5,120
Four Vety. Asst. Surgeons (140-250)	...	6,720
Two Vety. Livestock Inspectors	...	1,440
One Stockman Compounder (55-60)	...	429
One Head Clerk (80-110)	...	960
One Lower Division Clerk (45-90)	...	540
One Typist with Special pay	...	660
Two Peons (18-25)	...	432
Total	... <u>77,000</u>	<u>19,292</u>

Note: This centre will do Artificial Insemination work in all the dairy and dry stock farms.

APPENDIX VI.

Creamery :

	Non-recurring Rs.	Recurring Rs.
Buildings for Creamery, Laboratory & Staff ...	2,50,000	
Machinery, equipment for distribution ...	2,50,000	
Cost of 63,500 lb. of milk per day to be purchased at As. 0—3—6 per lb. ...		50,70,077
Cost of running the plants at 6 pies for 10 lbs. ...		72,430

Establishment :

One Dairy Technologist (260-700) ...		3,120
Four Asst. Dairy Technologists (140-250) ...		6,720
One Bacteriologist (140-259) ...		1,680
5 Laboratory Assistants (60-3-90) ...		3,600
20 Dairymen at Rs. 15/- each p. m. ...		3,600
One Mechanic (70-120) ...		840
One Asst. Mechanic (45-75) ...		540
Two Watchmen at Rs. 15/- each p. m. ...		360
Three Peons at Rs. 18/- p. m. ...		648
One Head Clerk ((80-125) ...		960
One Lower Division Clerk ...		540
One Typist (45-90) with special pay ...		660
One Sweeper at Rs. 15 p. m. ...		180
Repairs and upkeep ...		10,000
Maintenance charges of equipment ...		10,000
Total for one creamery ...	5,00,000	51,85,955
Total for three creameries ...	15,00,000	1,55,57,865

APPENDIX VII.

Transport Section :

	Non-recurring Rs.	Recurring Rs.
Buildings for Stationing Lorries, Jeeps, Motor Cycles etc. ...	1,00,000	
Lorries and Workshop equipment for distribution centres ...	4,00,000	

Establishment :

One Automobile Engineer (250-350) ...		3,000
One Executive Asst. (150-225) ...		1,800
30 Drivers (45-60) ...		16,200
30 Cleaners at Rs. 15/- each p. m. ...		5,400
Four Mechanics (60-80) ...		2,880
Fitters and Carpenters, Ten at Rs. 90/- each per mensem ...		10,800
Coolies including Boys 20 at Rs. 10/- each per mensem ...		3,600
Four Watchmen at Rs. 15/- each per mensem ...		720
Maintenance Charges for lorries etc. ...		40,000
Repairs and upkeep ...		40,000
Total ...	5,00,000	1,24,400

Note: This section is intended for the distribution of milk in the City of Madras from the three creameries to the 50 distribution centres.

APPENDIX VIII.

Quality Control Centre:

	Non-recurring Rs.	Recurring Rs.
Buildings	50,000	
Laboratory equipment	25,000	
Transport Vehicles	10,000	
Cost of running laboratory equipment		5,000
Purchase of Chemicals etc.		10,000
Maintenance Charge for lorries		2,500

Staff:

One Dairy Technologist (260-700)		3,120
Two Asst. Dairy Technologist (140-250)		3,360
One Bacteriologist (140-250)		1,680
10 Laboratory Assts. (60-90)		7,200
Six Mazdoors at Rs. 15/- each per mensem		1,080
One Watchman at Rs. 15/-		180
One Head Clerk (80-125)		960
One Upper division Clerk (80-110)		960
One Lower Division Clerk (45-90)		540
One Typist (45-90) with special pay		660
One Sweeper at Rs. 15/- per mensem		180
Two Peons at Rs. 18/- each per mensem		432
One Driver (45-60)		540
One Cleaner at Rs. 15/- per mensem		180
Total	85,000	38,572

Note: System of procurement and system of quality control:

It is proposed to purchase milk at about 0-3-6 annas per lb. in consultation with the Committees from the producers i. e. the Dairy farms, the Co-operative Milk Supply Unions and Societies and the Madras Milk Factory and the City milkmen besides other private dairy farms. The Milk Commissioner will arrange to conduct tests to indicate the physical, chemical, and hygienic quality of milk. Important tests like Gerber's test, specific gravity, smell, taste and the general appearance dirt content, acidity, boiling reaction etc. will be done. Bacteriological examination will also be carried out. Data of the results will be fully recorded and reported to different sections for guidance. The sale price will be fixed at As. 5/- per lb. under this scheme. Therefore a net profit of an anna and a half per lb. of liquid milk sold, is possible. A statement of anticipated receipts is shown in Appendix XII.

APPENDIX IX.

Distribution Centres:

	Non-recurring Rs.	Recurring Rs.
Buildings for one distribution centre	5,000	
Utensils etc.	1,000	
Furniture etc.	2,000	

Establishment:

One maistry (45-90)		540
Two menials at Rs. 15/- each p. m.		360
Total for one centre	8,000	900
Total for 50 centers	4,00,000	45,000

APPENDIX X.

Milk Commissioner's Office:

	Non-recurring Rs.	Recurring Rs.
Milk Commissioner (2000-3000) ...		24,000
Milk Procuring and distributing Officer (260-700)...		3,120
Milk Accounts Officer (260-700) ...		3,120
Four Milk Supervisors (90-120) ...		4,320
One Deputy Registrar of Co-operative Societies (230-700) ...		2,760
One Asst. Engineer P. W. D. (260-500) ...		3,160

Office:

One Senior Superintendent (190-240) ...		2,280
One Junior Superintendent (140-190) ...		1,680
Five Upper division Clerks (80-110) ...		4,800
10 Milk Accountants (80-110) ...		9,600
One Cash Keeper (90-175) ...		1,080
One Stenographer (45-90) plus special pay Rs. 35/- ...		960
Two Typists (45-90) plus special pay Rs. 10/- ...		1,320
Five Peons (18-25) ...		1,080
Two Watchmen at Rs. 15/- each p, m. ...		360
Buildings for Office etc. ...	50,000	
Furniture etc. ...	5,000	
Total ...	55,090	63,600

APPENDIX XI.

	Non-recurring Rs.	Recurring Rs.
Cost of 10 dairy farms ...	1,01,20,000	40,78,840
Cost of 10 dry stock farms ...	25,10,000	13,24,900
One Disease Control centre ...	65,000	30,392
One Breeding Centre ...	77,000	19,292
Three Creameries ...	15,00,000	1,55,57,865
Transport Section - one ...	5,00,000	1,24,400
Quality Control centre - one ...	85,000	38,572
Distribution centres - Fifty ...	4,00,000	45,000
Milk Commissioner's Office ...	54,000	63,000
	1,53,12,000	2,12,82,861 or 2,12,83,000

APPENDIX XII

Statement of anticipated receipts:

By sale of 1,90,000 lbs. of milk produced as shown in Appendix I at As. 5/- per lb. per day ...		2,16,72,875
Rent for 100 cattle stalls at Rs. 10/- per mensem each ...		12,000
Receipts by way of sale of 200 animals of female and young stock ...		25,000
Total		2,17,08,875 or 2,17,09,000

Note: Sales tax and depreciation are not included. This may work out at about 10% roughly and may come to about Rs. 15/- lakhs at the end of the year. It must be borne in mind that it would be unfair to assess profits and loss in the very first year itself. It must, however, be noted that a number of officers with their establishments need not be brought into the scheme.

MADRAS MILK PLAN

MILK COMMISSIONER

