ESTIMATES COMMITTEE

1956-57

SIXTY-FOURTH REPORT

MINISTRY OF DEFENCE

MILITARY DAIRY FARMS



LOK SABHA SECRETARIAT NEW DELHI March, 1957

CONTENTS

												PAGES
	COMPOSITION OF THE E	STIM 4	TES	COMM	UTTEE							(iii)
	INTRODUCTION .			•	•		•			•		(iv)
I.	INTRODUCTORY						•					12
	(a) Historical .	٠.				•	•					1
	(b) Functions				•							ī
	(c) Organisation .			•		•						I
	(d) Growth .	•			•	•	•		•			I2
II.	A. FINANCIAL MATTER	RS										37
	(a) Expenditure			•								3
	· · · · · · · · · · · · · · · · · · ·					·	•	•	·	·	·	34
	(c) General Administr			ports			•		•	•	•	• •
					•						•	5-7
В.	•										·	
D.		•	•	•	•	•	•	•	•	•	•	8
	(a) First Five Year Pl		•	•	•	•	•	•	•	•	•	8
	(b) Second Five Year	Plan		•	. •	•	•	•	•	•	•	8
11	II. PRODUCTION											
	A. Milk and Dairy Pro	ducts.	•	•	•			. •	•	•		9-10
	(a) Location of farms						•		•		•	9
	(b) Self-sufficiency					•	•	•	•	•	٠	9-10
	(c) Civil demand					•	•	•	•	•		10
	(d) Electric Cars.	•	•	•	•	•	•	•	•	•	•	10
	B. Fodder and Vegetal	les								•		10-12
	()	•	•	•	•	•	•	•	•	•		10-11
	(b) Dry fodder .		•	•	•	•	•	•	•	•	•	II
	(c) Green fodder	•	•	•	•	•	٠.	•	•	•		II
	(d) Vegetables .	•	•	•	•	•	•	•	•	•		12
	C. Research											12-13
	(a) Present Activities	з.				•			•			12-13
	(b) Local Problems						•		•	•		13
	(c) Role in the Gene	ral So	cher	ne of I	Resear	ch .	•	•	•	•		. 13
I	V. LIVESTOCK						•					. 14—18
	(a) Strength .						•					. 14
	(b) Assistance in bre	eding										14-15
	• •							•	•			. 15—16
	(d) Dissemination of	f Kno	wle	dge .		•			•			. 16—17
	(e) Surplus Calves					•		•	٠.			. 17
	(f) Buffaloes											. 17-18

V.	A. Co-operation v	witu (Civir. D	AIRV	FAR	MR ANI	ь Риж	LICITY	,			PAGES
• •			J. 1.1.2 D		2.111							
	(a) Co-ordination	•	•	•	•	•	•	•	•	•	•	1920
	(b) Comparative St	•	•	•	•	•	•	•	•	•	•	20
	(c) Co-ordination a	t lowe	r levels		•	•	•	•	•	•	•	20
B.	PUBLICITY .								•	•	•	20~-22
	(a) Present position							•				2021
	(b) Suggestions for	impr	ovemen	t	. •		•	• .	•	•	•	2122
VI.	STAFF AND TRAINI	NG										2324
1	(a) Recruitment											23
((b) Training .											23
	(c) Scheduled Caste	es .										23-24
((d) Amenities .		•					•				24
AF	PENDICE!											
Ţ	. Organisational se	t up c	f the M	lilite	rv Di	iry fa	rms		:			25
₹Ĩ.	_	_			-			and	drv c	att ic a	nd	•
	the average dail						•	•			•	2627
III.	Budget Estimate	for th	e year I	956-	-57							28-29
IV.	Note about the se	cheme	s and p	rojec	ts un	dertak	en					303T
V.	Statement showing	ng the	extent (of la	nd wi	th the	Milit	ary F	RTENS			32
VI.	List showing the	cattle	breeds	kept	in ve	rious	Milit	ary Fo	ırms			3334
VII.	_	views orman	on sele C. Wri	ctiv	e bre in his	eding Repor	and o	ross t	reedi	ng ex nent o	- f	3536
VIII.	Statement showing	•					s of of	ficers :	and st	aff		
	of various pay re		•			•	•	4	•	•		3738
IX.	Summary of conc	lusion	s/recom	men	datio	DS			•			3946

MEMBERS OF THE ESTIMATES COMMITTEE, 1956-57

- 1. Shri Balvantray Gopaljee Mehta-Chairman.
- 2. Shri B. S. Murthy
- 3. Shrimati B. Khongmen
- 4. Shri Nageshwar Prasad Sinha
- 5. Shri B. L. Chandak
- 6. Shri Amarnath Vidyalankar*
- 7. Shri Venkatesh Narayan Tivary
- 8. Shri Satis Chandra Samanta
- 9. Shri Raghvendrarao Srinivasrao Diwan
- 10. Shri M. R. Krishna
- 11. Shri Jethalal Harikrishna Joshi
- 12. Shri Bhawani Singht
- 13. Shri P. Subba Rao
- 14. Shri P. N. Rajabhoj
- 15. Shri Vishnu Ahanashyam Deshpande
- 16 Shri Satyendra Narayan Sinha
- 17. Pandit Warka Nath Tiwary
- 18. Shri C. R. Narasimhan
- 19. Shri Raghubir Sahai
- 20. Pandit Algu Rai Shastri **
- 21. Shri Abdus Sattar
- 22. Shri Lakshman Singh Charak
- 23. Shri Radheshyam Ramkumar Morarka
- 24. Shri N. Rachiah
- 25. Shri Mangalagiri Nanadas
- 26. Shri T. B. Vittal Rao
- 27. Shri Y. Gadilingana Gowd
- 28. Shri Jaswantraj Mehta
- 29. Shri A. E. T. Barrow
- 30. Shri Choithram Partabrai Gidwani.

SECRETARIAT

- Shri S. L. Shakdher-Joint Secretary
- Shri A. R. Shirali-Deputy Secretary
- Shri C. S. Swaminathan—Under Secretary

^{*}Resigned on 20th November, 1956 † Died on 6th October, 1956.

^{**}Ceased to be a Member upon his election to Rajya Sabha on the 13th December, 1956.

INTRODUCTION

- 1, the Chairman, Estimates Committee having been authorised by the Committee to submit the Report on their behalf present this Sixty-fourth Report on the Ministry of Defence on the Military Dairy Farms.
- 2. The Committee wish to express their thanks to the officers of the Ministry of Defence for placing before them the material and information relating to the estimates.

BALVANTRAY G. MEHTA,

Chairman,

Estimates Committee.

Maw Och 'The 28th March, 1957.

I INTRODUCTORY

(a) Historical

The Military Dairy Farms in India, the first of which was started at Allahabad in 1891, were originally established specifically to supply milk and milk products to British troops and Military Hospitals. Their establishment had a very important influence on the development of organised dairying in India, since it led indirectly to the creation, in 1920, of the post of Imperial Dairy Expert, which in turn provided a focussing point for the development of the industry and gave an impetus to the introduction of modern methods of handling milk. Thus, the policy of pasteurising and bottling milk was encouraged and stress was laid on the introduction of factory methods of manufacture, particularly for the production of butter.

(b) Functions

2. The main function of the Military Dairy Farms at present is to ensure a clean and safe supply of dairy produce to Armed Forces and Military Hospitals and also to supply dry fodder required for the animals of the Armed Forces. In addition, they supply vegetables to the Army Service Corps and green fodder, wherever available, to army animals.

(c) Organisation

3. Military farms are administered by the Director, Remounts, Veterinary and Farms, from the Army Headquarters. The Director acts as an adviser to the Quartermaster General on technical matters connected with the working of the Military Farms and of the Remount and Veterinary organisation. He is also responsible to the Quartermaster General for the general administration and internal economy of the farms. At each Command Head Quarters, there is an Assistant Director, who in addition to his other Veterinary and Remount duties, is responsible for the efficient running of military farms located under the Command. Each farm is under the charge of a Farm Officer. A chart showing the organisational set up of the Military Dairy Farms is given at appendix I.

(d) Growth

4. There were 37 Military Dairy Farms including Dry and Young-stock Farms in undivided India in 1937 with a cattle population of about 7,800 heads in terms of adults, while at present the number of farms in the Indian Union is 26 and in addition there are 3 branch Military Farms; 5 young and dry stock farms; 18 Military Farms Depots and 2 fodder paling depots, with a total cattle population of about 16,000. A list of Military Farms showing the number of milch and dry cattle and the average daily yield of milk in each farm is given at Appendix II.

5. The volume of work done by the Military Farms in terms of production and purchase of milk, butter, cream, fodder (on dry basis) and vegetables is given in the following statement:—

		Year			Milk	Butter	Cream	Fodder on dry basis	Vegetab- les
					lbs.	lbs.	lbs.	tons	lbs.
1951-52	, :	•			4,55,12,230	3,02,275	5,44,892	75,887	
1952-53	•		•		4,77,37,946	2,95,052	5,81,122	64,706	7,84,869
1953-54	. •	•	•	•	4,83,02,011	3,25,273	6,10,895	63,155	4,52,410
1954-55	•	•			4,74,22,114	3,29,331	5,81,589	56,019	3,99,949
1955-56	•	•			7,21,54,508	3,71,003	6, 64,9 46	41,051	3,95,400

Note:—The figures for milk given for 1955-56 in the Table represents the quantity of issues made.

II FINANCIAL MATTERS

(a) Expenditure

- 6. The Budget Estimates of the Military Dairy Farms for 1956-57 are shown in Appendix III.
- 7. The actual expenditure during the years 1951-52 to 1954-55 is given below:—

	1951-52	1952-53	1953-54	1954-55
	Rs.	Rs.	Rs.	Rs.
(1) Pay of Staff	56,73,493	56,43,203	55,36,756	54,68,887
(2) Purchase of dairy produce where dairy farms do not func-				
tion	25,809	••	11,479	
(3) Purchase of fodder	22,56,541	17,33,822	10,02,351	8,66,709
(4) Other Purchases	•	••	••	••
(5) Production Charges .	1,10,02,225	89,62,839	78,87,679	71,81,705
(6) Transportation charges .	10,36,124	9,75,899	9,62,540	8,14,252
(7) Custom duty	11	7 ,24 7		3,278
(8) Miscellaneous expenses .	12,31,005	15,16,828	18,88,106	22,72,221
(9) Development (Poultry) .	19,098	15,986	••	••
Total .	2,12,44,306	1,88,55,824	1,72,88,911	1,66,07,052
New Demands	5,71,460	4,37,260	3,74,016	4,11,840
R.R. Fund	11,39,547	8,49,006	12,49,349	19,03,461

^{8.} The increase in the estimates of the year 1956-57 is attributed to (a) employment of substitutes in place of class IV grade staff being granted weekly and gazetted holidays; (b) increase in the prices of concentrates; and (c) increase in the cost of miscellaneous stores.

(b) Profit and Loss

9. The accounts of the Military Farms are kept on commercial principles. Expenditure on staff, transportation, administrative charges, production charges, purchases, all miscellaneous expenses and non-effective charges and interest and depreciation on capital are charged to the Trading Account while credit is taken for cash and coupon sales, because of free issues supplied by contract, sale and free issue of grain and fodder, miscellaneous receipts and interest on funds

with the Government. The net profit earned by the Military farms during the years 1951-52 to 1955-56 is given below:—

	s.	I.										
17,36,374			•		•	•		•		•	1951-52 .	3
36,69,158	•		•	•	•		•				1952-53 .	I
26,55,626			•		•	•	•	•			1953-54 .	1
33,56,910		•		•	•	•	•	•	•	•	1954-55 .	3
45,28,420		٠.									1955-56 .	J

10. The Committee observe that while most of the farms run at a profit, the farm at Bareilly has uniformly incurred loss ever since 1949-50. This was explained as due to two reasons: (i) The overheads were a little high, production being only 1,100 lbs. a day. Bad management. It is unfortunate that while there was good irrigated land, due to bad planning, it was not fully utilized. Further the supervision was also stated to be weak and as a result the production went down. In spite of inspections and detailed instructions, the position remained the same for about a year and a half mainly because the instructions were not being carried out. The Committee understand that the persons responsible have since been punished and that the position is improving. They consider that this case clearly indicates the necessity of keeping a close watch over financial results. The Committee further notice that in certain farms as for example, farms at Kanpur, Lucknow, and Meerut there are wide fluctuations in the profit earned from year to year and in certain others e.g. farms at Allahabad, Kanpur and Lucknow after a number of years of profit. suddenly losses occur. They would, therefore, recommend that the financial results in all such cases should be carefully reviewed every year and prompt measures should be taken to set right the defects noticed.

Regarding the high overheads, it is obvious that if production is increased the element of overheads in the cost will diminish. The Committee have recommended elsewhere that the Military farms should extend their activities and cater to a portion of the Civilian needs also. They feel that with the implementation of that recommendation, it should be possible to reduce the incidence of overheads on the cost of production.

(c) General Administration Reports

11. General Administration Reports on the working of the Military farms are printed in respect of each year. The Committee observe, however, that they are brought out very late. The report of the year 1951-52 was signed in August 1953 but was printed only in 1954. The reports for 1952-53 and 1953-54 were signed in July 1955 and were printed in 1956. The report for 1954-55 was said to be in print, when the Committee examined the representatives of the Ministry in January, 1957. The report for 1955-56 was still

under compilation. The Committee consider this unsatisfactory. They recommend that annual reports should be compiled within three months of the close of the financial year to which they pertain.

12. The General Administration reports as at present published, contain some statistical data and show the financial results. The Committee, however, consider that the report should be made an attractive volume and should contain interesting details which should be presented in a better manner. The aim should be to make it serve partly the purpose of publicity also, about which a further reference is made later in this report.

(d) Pricing

13. The Committee understand that for the purpose of pricing the dairy produce like milk, butter and cream, the farms are divided into six zones, in each of which the prices are fixed after taking into account all factors including the local market rates. If the rates are to be varied, the approval of the Ministry of Finance is obtained. Normally, if the farms show high profits, prices are reduced. The Committee understand that prices have generally been reduced during the past few years and there is a proposal to carry out a further reduction. The current prices of milk per lb. at various places are shown below:—

Ahmadnaga	r				•		•			0	5	6
Bangalore										0	6	0
Madras										0	7	0
Belgaum				•						0	5	6
Deolali										0	5	6
Jabalpur		•		•	•					0	5	6
Pachmerhi	•	•			٠.					0	5	6
Kirkee										0	6	0
Ahmedabad	•				•	•			•	0	6	0
Baroda.										0	6	0
Pimpri										0	6	0
Colaba										0	7	0
Secunderaba	ıd	•					•			٠.	5	6
Vizagapatam	1.		•							0	6	0
Wellington										0	8	0
Agra	•							•		0	5	6
Mathura							•			0	5	6
Allahabad										0	5	6
Bareilly	•	•	•	•	•	•	•	•		0	5	6
Dehra Dun							•			0	6	0
Roorkee										0	5	6
Jhansi .	•			•	•			•		0	5	6
Kanpur			•		•					0	5	6
Fatchgarh	•	•	•	•						0	5	6
Lucknow										0	5	6

Fyzabad										0	5	6
Meerut										0	5	6
Namkam				•		•	•	•	•	0	6	0
Shillong				•	-	•	•		•	0	6	0
Panagarh					•	•	•	•	•	0	6	0
Calcutta		·	Ċ	•	•	-	_	•	•	0	8	0
Ambala	:			•	•	•	•	•	•	0	5	6
Dagshai ·		•	•	•	•	•	•	•	•		6	0
Kasauli	•	•	•	•	•	•	•	•	•	0		_
Delhi Cantt.	•	•	•	•	•	•	•	•	•	0	6	0
	•	• •	•	•	•	•	•	•	•	0	6	0
Ferozepore	•	•	•	•	•	•	•	•	•	0	5	6
Jullundur	•	•	•	•	•	•	•	•	•	0	5	6
Amritsar	•	•	•	•	•	•	•	•	•	0	5	6
Mhow	•	•	•	•	•	•	•	•	•	0	5	6
Nasirabad				·	•		•	•	•	0	5	6
Pathankot		•	•	•	•			•		0	5	6
Yol .		•		•						0	5	6
Jammu										0	5	0
Srinager		•								0	5	6
Baramula		•		•						0	5	6

- 14. The Committee understand that generally the prices charged by Military dairy farms are higher than the local market rates. The high cost is attributed to the conditions of production, such as payment of fixed rates of salaries to the employees, provision of housing and other facilities, protection against infection, hygienic methods of production, bottling, etc. To some extent, the sale price is also higher than the cost of production as is shown by the fact that the farms earn a profit.
- 15. There is at present a number of milk supply schemes in various towns working under conditions more or less similar to those in the Military Dairy Farms. They are also engaged in Dairy maintenance, milk production, pasteurisation and distribution. mittee feel that it should be possible to compare the rates fixed for Military Dairy Farms with those charged by such organisations. appeared to them that even after making due allowance for the quality of the products, the rates of Military farms were much higher than the selling rates of Government or private farms in the adjoining areas. For instance, the Committee understand that milk is supplied at Delhi by a Co-operative Milk Supply Scheme at a cost of Rs. -/4/6 per lb. whereas the rate of the Military Dairy Farm is Rs. -/6/- per Similarly, as against the rate of Rs. -/5/6 per lb. charged by the Military farms in Punjab region, it is understood that the National Dairy Research Institute, Karnal, charges only Rs. 14/7/4 per maund which works out to less than Rs. -/3/- per lb.
- 16. The bulk of the issues from the Military Dairy Farms goes to the Military Units and Hospitals and only a small portion is sold as retail. The demand is also fairly firm. Further, the Committee understand that the issue rate of fodder produced by the Military

farms is much lower than the market rate for fodder. As such, they feel that the Military Dairy Farms are in an advantageous position vis-a-vis other dairy farms in respect of costs. However, under the present system, costing is done merely for the purpose of the proforma Profit and Loss account. The Committee do not consider that this method would serve the purpose of bringing to light inefficiency and wastage in production. They would, therefore, recommend that a study of costs should be undertaken in respect of representative farms in different zones and that they should be compared both inter se and with those of private, Co-operative or Government dairy farms. They also recommend that the rate should be fixed mainly on the basis of market rates, after making necessary allowance for the quality of the product, since only then can efficiency be improved*.

17. The Committee would mention, in this connection, that it was brought to their notice that on account of the higher rates charged by the Military Dairy Farms, Officers and other ranks of the Defence Services preferred to buy milk from other sources. Thus the facilities available were not made use of even by those who are normally expected to derive benefit from them. The Committee feel that this is an unfortunate situation and steps should be taken to remedy it. They note that it is now intended to sell milk at slightly cheaper rates to officers and other ranks charging higher rate to others. While this may be a temporary expedient, a permanent solution should be found only on the basis of increased all-round efficiency and consequent lowering of costs. It is also necessary to convince customers that in buying the dairy product of the Military Dairy Farms, they get full worth for their money, much more than they get when they buy from other sources.

^{*}N.B.—The Committee have since been informed that considerable reduction in payment issue rates at all stations had already been sanctioned w.e.f. 1-2-1957 and that further reduction in the free rates was also contemplated.

B. FIVE YEAR PLANS

(a) First Five Year Plan

18. The Committee understand that no specific scheme relating to the Military Dairy Farms was included as such in the First Five Year Plan. However about Rs. 75 lakhs were spent during those years on Plant, Machinery and Buildings. Most of the expenditure was towards rehabilitation of dilapidated buildings and replacement of obsolete plant and machinery. There were no new projects or expansion.

(b) Second Five Year Plan

- 19. The Committee understand that no specific project has been included in the Second Five Year Plan also. Some improvements required for certain farms like Jhansi, Ranchi and Delhi are, however, intended to be taken up and the expenditure thereon would be spread over a period of 3 to 4 years.
- 20. A note received from the Ministry about the schemes and projects undertaken is reproduced in Appendix IV.
- 21. The Committee regret to find that the Military farms have not actively and systematically participated in the Plans especially in the context of large scale national developments in the fields of Animal Husbandry and Dairying. It appears that only the restricted purpose of supplying milk to troops and military hospitals had been kept in view. The Committee are anxious that the assets available with the Military Dairy Farms in the form of trained men and technical know-how, should be fully utilized in the wider interests. They, therefore, recommend that these farms should be assigned a definite role, in keeping with their maximum capacity, in the schemes for the development of animal husbandry and dairying in the Second Five Year Plan. They would urge that this should be done expeditiously so that the results might be evident by the end of the Second Five Year Plan.

III PRODUCTION

A. Milk and Dairy Products

(a) Location of Farms

- 22. The present locations of Military farms have been shown command-wise in Appendix II. The Committee were told that the present policy is to set up Military Farms wherever the demand for supply of milk is 1,000 lbs. or more per day, while in other areas, there would only be depots. However, at present even in areas where the minimum demand exists, farms have not been set up. Thus, at Madras, Calcutta and Shillong, there are large depots but no farms. It was stated however that the possibility of setting up farms at these places was being explored, though no plan had yet been drawn up for the purpose. The Committee were informed that there was a proposal to set up a farm at Panagarli, about 70 miles from Calcutta, where the necessary land was said to be available. Similarly, Government land is said to be available about 20 miles from Madras, and there was a proposal to have a farm there. The Committee regret to observe that even in these two big cities, where the demand for milk by troops and military hospitals is sufficiently large the proposals have not been pursued vigorously and that no specific scheme has been included in the Second Five Year Plan.
- 23. As regards Bombay, the Committee understand that there are farms in Poona, Kirkee and Pimpri which would meet the demands of these areas.

(b) Self-sufficiency

24. Of the total quantity of milk supplied by the farms and depots only 1/7th is purchased from the market, the rest, being produced by the farms themselves. All the requirements of the Military Hospitals in respect of milk, butter, etc. are met by the Military Farms wherever farms exist and in other cases supplies are made from the depots. The Committee understand that the aim is to meet the entire demand of the Armed Forces, wherever farms and depots exist at the same time, to avoid as far as possible, any surplus over their requirements. However, due to seasonal conditions, some little surplus is left over during winter, and it is converted into ghee and disposed of to the entitled parties.

Milk and other dairy products are supplied to the customers in the following order of priority.

- 1. Military Hospitals;
- 2. Troops (as part of their rations)
- 3. Military Officers including their families; and

4. Defence Service Personnel, Military Schools and Colleges and Civilians paid from the Defence Service estimates including their families.

(c) Civil demand.

25. The Committee notice that the policy is to meet only the Defence requirements. While the Committee agree that the policy fulfils the main purpose for which Military farms were set up, they feel that the scope of their activities should be expanded to cater to the civilian requirements also, to the extent possible so that the general public could also avail of the advantages possessed in the Military farms, with their organisation, equipment and technique, and also avail of the products of the modern dairy. Since the Dairy Farms are being run on commercial principles, the Committee feel that it would be in their interests as well as in the interest of the public, if efforts are made to attract customers, other than those of the entitled categories. As a first step in this direction they would suggest that the farms should undertake supply of dairy to Civil Hospitals in neighbouring areas. The Committee feel that if the cost of production with reference to the quality is reasonable, there should be no difficulty in persuading civil hospitals to milk from military farms. While this would ensure that a constant minimum demand is kept up, it would also save any additional expenditure which retail delivery might entail.

(d) Electric Cars.

26. The Military Dairy Farm, Delhi Cantonment has introduced a battery operated insulated electric car for the delivery of dairy products. It was stated that in most of the western countries, electric cars were being used for this purpose and that the cost was supposed to be much less than that of other conventional means transport. However, this is believed to be the first of its kind in this country and though the car has been with the Farm for nearly a year, it is understood that sufficient practical experience has not been gained about the economies of the maintenance and operation of the car. The Committee recommend that a careful watch should be kept over the costs of the car and an early conclusion reached about its relative advantages. They would also recommend thereafter leading industrialists and automobile products in country should be invited to see whether such cars, which seem to have a simple mechanism, could be introduced in the country for different purposes, both domestic and commercial, and if so, whether they could be manufactured in this country.

B. Fodder & Vegetables.

(a) Land.

27. The extent of land in the possession of Military farms in the different Commands as on 31st March, 1955 is shown in the statement in Appendix V. Out of a total of about 50,706 acres of land 45 per cent are grass lands and about 25 per cent are under crop

cultivation. The Committee were informed that in order to reduce the purchase of fodder and grains, a programme of a reclaiming lands in possession of Military farms was undertaken and 7,200 acres of additional area was brought under plough *i.e.*, an increase of approximately 100 per cent over the area under plough in 1948. They understand that this was the maximum possible and that there was hardly any more land in the Military lands which it would be advisable to bring under the plough.

28. The farms expend annually a sum of about Rs. 35 lakhs on cultivation charges, grazing charges and rent of grazing lands. The farms are self-sufficient in dry-fodder required by the Dairy animals, which is about 40,000 tons. The total quantity of dry fodder produced and purchased by the Military farms in the last 5 years has been indicated in para 5. The average annual production of dry fodder is stated to be about 45,000 tons.

(b) Dry fodder.

1 29. The farms also supply all dry fodder required by the Army animals, the requirement of which is about 9,000 tons. Thus about 4,000 to 5,000 tons of fodder are bought in the open market. This is done especially in areas where the cost of transport is heavy. Also the special fodder required for camels is bought in certain localities around Bikaner. Further it is also understood that fodder produced in the farms cost much less than the market price. The Committee would recommend that the farms should make an effort to produce all the dry fodder required for the army animal as that would involve raising the output by less than 10 per cent Exceptions need be made only in respect of the special type of camel fodder and that required for animals at such places to which transport will involve prohibitive cost.

(c) Green fodder.

30. The Committee suggest that the experience of the Military Dairy Farms in the matter of production of fodder and the result of feeding of different types of fodder should serve as valuable guides for the cattle breeders. It is generally accepted that the cattle in India suffer from insufficient feeding as well as lack of sufficient nutrition in feeds. The traditional dry fodder is known to have low nutritive ratio. On the other hand, the production of green fodder involves a heavy cost. However, since green fodder is grown on Military farms, they should interest the farmers in the neighbourhood in the growing of fodder crops. The effect of feeding the cattle with these crops, on the yield and cost of production of milk as well as the influence on soil fertility should also be carefully investigated and the results should be made available to the agriculturists and keepers of dairy animals. The Committee believe that the Military farms are well suited to conduct such study and, that they should, therefore, be used as demonstration farms for spreading such knowledge.

(d) Vegetables.

31. The Committee understand that vegetables are grown in the farms at Jullundur, Ambala and Ferozepur. Vegetables to the extent of 20 per cent of the demands of the stations in those places are said to be met by such production. The quantity of vegetables grown in the last 4 years is indicated in para 5. It would be observed that the production of vegetables in the farms has considerably declined.

The cost of production is said to be quite low and as against the market rate of Rs. 15/- per 100 lbs. and the Army Service Corps's purchase rate of about Rs. 9-4-0, the farms supply vegetables at Rs. 6-4-9 to 7-14-3 per 100 lbs. The Committee would, therefore, suggest that the farms should aim at growing more vegetables in the farms. The first objective should no doubt be to meet the entire requirements of fodder but when that is fulfilled whatever lands are left should be utilised for growing vegetables. It was said that one of the difficulties was in regard to irrigation facilities. wells were being sunk in certain places and sullage water was being used in certain other places. Schemes are said to progress as and when funds are made available. The Committee would suggest that the economics of the development of land by providing additional irrigation facilities should be carefully studied, not only with reference to the finances of the Military farms, but also taking into account the overall economy that will be effected in other directions and the benefit of total additional production of vegetables to the region. If such a scheme show distinct advantages, a reasonable capital expenditure for that purpose should not be grudged.

C. Research

- (a) Present Activities.
- 32. The Committee understand that the Military Dairy Farms conduct experiments on various problems concerning the dairy farms. Some of the subjects on which experiments have been carried out during the period 1949 to 1956 are given below:
 - (1) Grading of purchased milk;
 - (2) Production of milk from farm animals;
 - (3) Losses of milk in Dairies during the course of processing and packing;
 - (4) Quality control of milk from contractors/suppliers;
 - (5) Manufacture of butter colour from Annatto dye;
 - (6) Study of nutritional values of different grasses at different stages of cutting;
 - (7) Incorporation of American Milo in concentrate ration of animals;
 - (8) Feeding of Bagomolasses to milk cattle;
 - (9) Rise/Fall in specific gravity with temperature variation;

- (10) Erogona feeding (milk increase powder) to milk animals;
 - (11) Dryage in fodder; and
 - (12) Butter fat test in milk.

(b) Local Problems.

- 33. The Committee are glad to note that some useful studies have been made on practical problems. They would, however, recommend that besides the problems arising in the various dairy tarms, research should also be conducted on practical problems generally facing the public in the areas where farms are located. They feel that there is scope for detailed investigation and research on the kinds of cattle food and cattle fodder and grass available in different parts of the country, and their nutritive values as regards protein, fat, carbo-hydrates, minerals and vitamins. Further, there is scope for research on the feeding standards for calves, young animals, bulls and milch animals, based on the type of cattle food generally available in the region.
- (c) Role in the General Scheme of Research.
- 34. The Committee are aware that it is the function of the National Dairy Research Institute to investigate, with the help of ts Regional Institutes, problems pertaining to rearing, nanagement and health of cows, economics of milk production, studies pertaining to the utilization of food in relation to production, the large scale production of fodder and their relative efficiency etc. The Committee would, however, recommend that those Military Dairy Farms which are in a position to undertake research on any of these aspects should be given the facilities encouragement to conduct such research and such schemes should be fitted into the general scheme for research drawn up by the National Dairy Research Institute. Since trained persons with the requisite scientific and practical knowledge are few, it is necessary that all the facilities available whether directly under the National Dairy Research Institute or with the Military farms or State Governments should be made use of to the fullest extent and on a plan-The Committee recommend that necessary action in this regard should be taken in coordination with the Ministry of Agriculture.

IV

LIVE-STOCK

(a) Strength

35. The strength of the livestock during the past several years is as shown pelow:—

1944-45										65,637	
1945-46	•		•	•						56,036	
1946-47	•		•							35,066	
1947-48	•	•	•	•	•	•	•	•	•	14,901	(Due to) partition
1948-49		•		•			•			17,492	-
1949-50				•	•			•		17,418	
1950-51										20,849	
1951-52		•		•						17,915	
1952-53								•		17,221	
1953-54							٠.			15,989	
1954-55		•						•	•	15,812	

It is seen that in 1950-51, the strength showed an upward trend but has been decreasing since then. The sudden increase in 1950-51 was explained as due to the fact that the Military farms were at the instance of the Ministry of Agriculture, rearing all calves born on the farms. It was, however, decided later that this was undesirable in a commercial concern and, therefore, the numbers declined in subsequent years. Owing to selective breeding, calves born from high yielding dams only are reared and the strength of adults particularly buffaloes is so maintained that it does not give a very large surplus of milk during winter, which has to be disposed of at a loss by conversion into Ghee.

(b) Assistance in breeding

36. The Committee understand that at a recent Conference of the Ministries of Defence, Finance and Agriculture, it was decided that 600 male calves (500 buffaloes calves and 100 cow calves) should be supplied annually on maturity by Military Farms to the key village blocks. These would be reared by the Military farms for four months without any charge and for the rest of the period, the cost would be shared equally between the Ministry of Agriculture and the State Government concerned.

While the Committee welcome this move to utilize the Military Dairy Farms as suppliers of good quality bulls for breeding purposes they would suggest that more extensive use should be made of the Military farms in this direction. It has been recently estimated that the country needs annualy 2½ lakhs of bulls to meet her full requirements while the actual production in Government farms is less than a thousand per year. The Military farms possess the organisation, the technique and the capacity for raising good quality

cattle and it would be in the national interest to put such resources to the utmost use. The Committee would, therefore, recommend that the Ministry of Agriculture should, in consultation with the Military Farms Wing of the R.V.F. Corps devise plans for putting the existing organisation to the maximum use.

As an immediate measure, the Committee would recommend that plans should be made to serve every village within a radius of about 20 miles from the Dairy Farms in order to improve the type of cattle in those villages. The farms should become centres from which service and knowledge should be spread and benefit the people around.

- 37. The Committee understand that there is a proposal to open more Artificial Insemination Centres at the Military farms besides the seven so far ordered. They would urge that a working scheme should be prepared and enforced at a very early date. Once the scheme is implemented, the farms should be in a position, after meeting their own requirements to supply the needs of the general public, and help to improve the cattle population in the country.
- 38. The Committee have recommended in their 42nd Report on the Community Projects Administration that the programme of opening new Key Village Centres should be so expedited as to meet the entire requirements of the rural areas by the end of the Second Plan. They had also recommended that the breeding farms should be encouraged in the source areas of improved breeds by giving suitable financial aid and technical advice to recognised good breeders to ensure quality animals with known pedigree. They would suggest that the Military farms should participate in this work of national development. There should be a programme to carry out breeding operations in the farms which should be integrated into the general programme for development of better breeds of cattle in the country.

(c) Breeding Policy

- 39. The Committee understand that five indigenous breeds of cows and one foreign breed in addition to cross breeds are maintained at the Military Dairy Farms. The indigenous breeds are Sahiwal, Tharparkar, Hariana, Sindhi and Gir. The foreign breed is Friesian. As regards Buffaloes, there are three indigenous breeds viz. Murrah, Nili and Jaffarabadi. The breeds of cattle kept in the various farms are shown in Appendix VI.
- 40. When the Military farms were first started, cattle breeding was commenced with indigenous breeds of calves. Soon, however, it was noticed that with the very low yield of the cows normally available in the country, it would not be possible to run the Military Farms economically and on scientific lines consistent with hygienic production, processing and adequate feeding. A policy of importing bulls of high yield and crossing them with indigenous cows was accordingly adopted. This gave very encouraging results and the policy remained in force until 1948. A majority of the cows obtained thus yielded over 6,000 lbs. of milk per lactation. However,

in 1948, it was decided by the Ministry of Food and Agriculture that the breeding policy at military farms should fall in line with that adopted in the rest of the country, viz. selective breedings of indigenous breeds, and consequently further import of bulls was stopped. This also caused reduction in the milk yield of the present herds. Consequent on the revision of the breeding policy for India by the Ministry of Food & Agriculture permitting cross-breed herds in areas of heavy rains and hilly tracts and also to permit military farms to carry out cross-breeding for a maximum period of 25 years, import of foreign bulls has again been applied for. However the Committee were informed that a scheme had also been drawn up by which the number of indigenous breed animals at Military farms would be multiplied consistent with selective breeding so as to replace all cross-breed herds in 25 years.

It is clear from the foregoing that the Military Dairy Farms have made several changes in their breeding policies since they started functioning. Cattle breeding is a very slow process. It is, therefore, essential that a definite breeding policy should be laid down and followed consistently year after year and generation after generation particularly as the results of changing the breeding policy from time to time are believed to be far from desirable. Further the Committee feel that the period of 25 years allowed to the Military Farms to import bulls is too long. They recommend therefore that the entire breeding policy should be reconsidered after obtaining expert advice.

The Committee would suggest that the views on selective breeding and cross-breeding expressed by Dr. Norman C. Wright in his Report on the Development of the Cattle and Dairy Industries in India; reproduced in Appendix VII may be given due consideration in delivering future breeding policies.

41. The Dairy Farms had about 300 pure breed indigenous cows at the time of partition. The number has since increased to 1,000 after disposing of those which did not conform to the prescribed standards. The Sahiwal herd, which is a valuable indigenous herd, gave an average lactation yield of 4,302 lbs. of milk (excluding first calvers) against the cross-breed Herds' average lactation yield of 5,610 lbs. in the year 1955-56.

(d) Dissemination of Knowledge

42. The Committee would further suggest that the benefit of the specialised knowledge possessed by the staff of the Military Dairy Farms regarding the breeding operations and up-keep of cattle should also benefit the civil population living in the adjoining areas and engaged in similar activities. Recently the Military Dairy Farms were thrown open to the public for two days a week. While the Committee are glad that the segregations that existed in respect of such institutions have disappeared, they feel that the farms besides permitting the public to visit them should also take active role in making the people adopt the best methods for improving

cattle wealth and dairy produce. For this purpose they suggest that the Military Dairy Farms should in cooperation with the civil authorities of the Veterinary & Animal Husbandry Departments demonstrate to the civil population in their area scientific methods of breeding dairy animals and the benefit to be derived by such methods.

43. Cattle improvement in the villages depends as much on good breeding as on proper feeding and management, sanitation, comfort, well-being etc. which would facilitate quick improvement. The Committee recommend that the Military Dairy Farms should be a centre of guidance and instruction to Gowalas and keepers of dairy animals in the neighbouring area.

(e) Surplus Calves

44. The Committee understand that the Military Dairy Farms rear their surplus calves for one month at their own cost and then give them away free of cost to the general public. Four thousand such calves are said to be given away every year. Feeding instructions are also given to those who take the calves. However, there is no machinery to watch the fate of these calves. The Committee do not consider this as satisfactory. They feel that there should be a means to follow up the growth of the good quality calves and to ensure that the national wealth represented by them is conserved and put to the best use. Under the present system, the risk of their getting into the hands of unscrupulous persons cannot be ruled out. The Committee would, therefore, suggest that as far as possible the calves should be given to well organised Goshalas and Farms run by Cooperatives, local and public bodies, institutions and individuals keenly interested in the work. In other cases, it may be arranged in cooperation with the Veterinary and Animal Husbandry authorities that the growth and development of the calves will be watched periodically by those authorities. Also, efforts should be made to integrate this system of free distribution of calves with the calfrearing schemes organised by the State Governments.

(f) Buffaloes

- 45. During the pre-war years, the size of the buffalo herds at Military Farms was small but with the introduction of free milk ration to Indian troops in 1943, buffalo herds were considerably increased and new number almost two-third of the milch cattle on the military farms. The yield at present per lactation of buffaloes is 3,664 lbs.
- 46. The Committee would, as a matter of interest refer here to what certain experts have to say regarding buffaloes.
- Col. Sir Arthur Olver in an article in the "Agriculture & Livestock in India, in July 1937" wrote:

"Where abundance of coarse fodder is available and where the production of ghee is a major consideration, or where liquid milk is produced for sale usually by unscrupulous and uncontrolled hawkers—the she-buffalo is at present commonly preferred. But investigation has shown that purebred cows of certain Indian breeds of cattle can in a comparatively few years be improved by proper feeding and management to a point where they can compete successfully with the buffalo in economy of milk or butter-fat production. In view, therefore, of the greater general utility of cows as compared with buffaloes, in that they produce better working animals as well as milk, and of the important fact that cows' milk is a much better food, particularly for children than buffaloes' milk watered down to the same level of butter-fat, the question whether cows should not be bred and as well-fed and maintained as are she-buffaloes, is one which merits careful study.

Dr. Norman C. Wright in his report on, "The Development of the Cattle & Dairy Industries in India" wrote:—

"It is questionable whether under present conditions of feeding and management the milch cow could displace the buffalo. The Military Dairy Farms have found that under good conditions of feeding and management the ordinary Sahiwal can produce as much milk as the buffalo while high milking strains of the breed will produce over half as much again."

Shri Satish C. Das Gupta in the preface to his book "Cow in India" says:—

"The most astounding fact which struck me was that when we consider the vitamin value of cow and buffalo fat, buffalo ghee goes down in estimation and approaches the place of lard or other animal fats. The carotene-vitamin value of buffalo-ghee is less than 2 units as compared with 21 units of the cow. And these 2 units are of an evanescent nature. On this consideration buffalo-ghee is very inferior. The vitamin A content of buffalo-ghee is almost equal to that of cow ghee. But the former being practically without the protective companionship of carotene, is likely to be largely destroyed in cooking."

The Committee would suggest that a firm policy regarding the retention and development of buffalo herds in Military farms should be laid down in consultation with experts.

(A) COOPERATION WITH CIVIL DAIRY FARMS

(2) Co-ordination

47. The Committee understand that co-ordination between the Military & Civil farms is maintained through the Indian Council of Agricultural Research. The Director, Remount, Veterinary and Farms is a member of most of the Committees formed to discuss subjects concerning Animal Husbandry and Dairying. Whenever the Assistant Directors of Remount, Veterinary and Farms have difficulties they are said to approach the State Directors of Animal Husbandry. While the Committee note that a certain amount of coordination already exists, they would place particular emphasis on this matter in view of the role that they desire the Military Dairy Farm should play in the general development of animal husbandry and dairying. Though the Military Dairy Farms are under the Defence Ministry, functionally their activities are akin to those in which certain Civil Departments are engaged. It is, therefore, necessary that at every level there should be the utmost co-ordination so that each would derive the full benefit from the other.

The Committee understand that a Committee of Experts for Military Farms was appointed in 1954 to go into the question of improvement of existing military farms. It includes high ranking officers of Ministry of Agriculture and serves as a bridge between the Military Farms and the Civil Animal Husbandry, Dairy and Agricultural Departments, so that both may derive benefit from each other and discuss matters of common interest. The Committee understand further that the Experts Committee held only 4 meetings since its appointment in 1954, as it is required to meet half-yearly, and took the following 4 decisions concerning matters affecting liaison between Military Farms and Civil Departments, in addition to other decisions regarding improvement of Military Farms' working:

- (a) Disposal of surplus calves and incurable live stock of military farms and acceptance thereof by civil breeding farms and Gosadans respectively through some intermediary agency like Gaushalas.
- (b) Rearing of 600 selected male calves upto maturity in military farms to meet the shortage of bulls in the country.
- (c) Procurement of good quality seeds of grasses and grains from Civil Agricultural Departments.
- (d) Technically qualified administrative officers, Agriculture Research Chemist and Assistant Bacteriologist of RVFC should pay liaison visits to the various Research Institutions as these visits will be most valuable in introducing

practices on the military farms based on works done at these institutions and also this will result in avoiding any duplication of work in the way of experimentation.

The Committee would suggest that the Experts Committee should meet more frequently and besides recommending measures for effective improvements in Military Farms at technical administration and financial levels should also take concrete steps to effect greater co-ordination between the Military and Civil Dairy Farms. The Committee would further suggest that representatives of leading private dairy farms and non-official experts in the line should also be associated with this Committee so as to derive mutual benefit.

(b) Comparative Study

48. The Committee observe that no comparative study of military and civil Dairy Farms has been undertaken so far. At the instance of the Committee a note comparing the Military Dairy Farm, Ambala with the National Dairy Research Institute, Karnal was furnished. The Committee notice that the milking average of Sahiwal in the Military Dairy Farm, Ambala is 15.93 lbs. per day as against 17.1 in the National Dairy Research Institute. Also, from certain statistical data furnished by the Ministry of Agriculture in respect of certain Civil Dairy Farms, the Committee observe that the average daily yield of Sahiwal at the Government Livestock Farm, Hissar is 7.0 lbs., and at the Bhupendra Dairy Farm, Patiala, it is 9.6 lbs. It is seen that at the Military Dairy Farm, Agra the average daily yield of the Hariana breed is 14.3 lbs., whereas at the Hariana Cattle Breeding Farm, Durnvam (Bihar) it is only 9.4 lbs. The Sindhi breed at the Military Dairy Farm, Bangalore gives an average daily yield of 14.2 lbs., while the same type at the Livestock Research Station, Hosur (Madras) gives only 13.2 lbs. The Committee consider that such variations should be carefully studied on a comparative basis with a view to deriving mutual benefit.

(c) Co-ordination at lower levels -

49. At present the co-ordination appears to have been arranged only at the highest level. The Committee would suggest that in order that the co-ordination may be effective, it should be arranged at various levels. The officers in immediate charge of the farms should also have periodical meetings with the civil authorities, concerned with Animal Husbandry and Dairying, with non-officials and representatives of institutions interested in the subject. Further, they should also develop a close interest in the problems of the area and as far as possible make their knowledge and services available for Cattle and Dairy Development in the region.

B. PUBLICITY

(a) Present position

50. The Committee were informed that the work done by the Military Farms was given publicity by participation in the All India

Cattle Show or local shows through the Defence Services notes published in the Press and occasional press releases. The prizes won in the shows are published in the 'Sainik Samachar'. Apart from this, there was no publicity.

The Committee feel that the public do not have a proper appreciation of the work done by the Military Farms. The practice of throwing open the farms twice a week to the public to visit them, which was introduced recently, might have some publicity value but by itself it is not adequate. It is necessary that the general public should be made aware of the work and achievements of the Military Dairy Farms and that they should be informed in what way these farms can help the civil population interested in the matter.

(b) Suggestions for improvement

- 51. The Committee recommend that interesting literature about the activities of the farms, the various experiments conducted, the way in which practical problems have been solved, the methods adopted to increase milk production and similar other useful information should be brought out.
- 52. As mentioned earlier, the present administration report hardly serves the purpose of publicity. Attractive annual reports on the working of the Dairy Farms providing informative and instructive material should therefore be brought out and made available to persons and institutions interested in the subject, as well as Members of Parliament and of the legislatures of the States in which the farms are situated.
- 53. Further, press correspondents should also be invited to visit the farms and the various aspects of work should be explained to them, so that they may also help in the publicity.
- 54. The Committee would recommend that the facility afforded by the Military Farms in regard to the giving away of calves free to public institutions and members of the public should also be given publicity and literature on the subject sent to every Goshala and Gosamrakshak Committee in the country.
- 55. The Committee have already recommended that farms should increase their milk production and cater to the extent possible to the needs of the civil population also, in addition to meeting all the needs of the Armed Forces. When that is done, due publicity should be given regarding the facility of supply of milk from the Military Dairy Farms, with particular reference to nutritive and hygienic conditions under which it is produced so as to take advantage of the facility.
- 56. The Committee have already recommended that the farms should study the dairying problems of local interest, in addition to conducting other types of research. Results of experiments on such problems should be given publicity in the locality by arranging meetings with the leading persons of the locality, by demonstrations

and by ensuring co-ordination with village development organisations and social workers.

57. The Committee would further recommend that organised visits to the farms from different educational institutions should be arranged. They feel that such visits will help in making the future citizens of the country interested in dairying and animal husbandry which are of fundamental importance to the country.

VI

STAFF AND TRAINING

58. A statement showing the number and designations of officersand staff of various pay-ranges is placed at Appendix VIII.

(a) Recruitment

59. Farms Officers are recruited through the U.P.S.C. Asregards supervisors, 25 per cent. are recruited directly and the remaining 75 per cent. by promotion from lower categories.

The Committee were informed that normally the basic qualification of those who are directly recruited for technical posts in the Military Farms is Matriculation. After gaining some experience they are required to attend the departmental courses. After they pass the departmental examinations, they are promoted to the different grades. There is stated to be a scheme whereby in future 25 per cent. of vacancies in the supervisors grade and 50 per cent. of vacancies in Civilian Farms Officers' grade will be filled directly from diploma holders and degree holders. The reasons for restricting direct recruitment of supervisors to 25 per cent. is to give-incentive and opportunities to the departmental staff to work their way up.

(b) Training

60. While the Committee agree that the staff should have ample opportunities of seeking advancement in career, they would like to stress that all categories of staff should be given intensive training in dairy farming. The Committee understand that there are three types of courses. Persons recruited do not go to the school immediately but are sent there according to seniority. They may have to work for five or six years before they get a chance to go to the school. The Committee do not consider this as satisfactory. Thetraining should be given soon after recruitment, before the person is actually put on the job. Later refresher courses or higher standards of training according to the aptitude and capacity of the individuals can be given, to equip them to hold higher posts. The types of training given should be suitably rearranged for such purposes.

(c) Scheduled Castes

61. 12½ per cent. of the posts which are filled by open competition are reserved for Scheduled Castes and Scheduled Tribes. For posts filled otherwise than by open competition, the quota is 16 2/8 per cent. The Committee notice that the quota reserved for Scheduled Castes and Scheduled Tribes has not been filled fully. It was said that sufficient number of Scheduled Castes and Scheduled Tribes.

were not forthcoming. The Committee recommend that special efforts should be made to fill the quota reserved for Scheduled Castes and Scheduled Tribes by persons from those categories.

(d) Amenities

62. There is an Amenity Fund in the Military Farms. There is also a sports fund. In certain places, there are schools and also small hospitals. The Committee were informed that Government formerly paid a contribution to the Amenity Fund, but that it has now been discontinued. In needy cases, expenditure is said to be met from the Regimental fund, to which also there is no Government contribution. The Committee feel that the desirability of contributing to the Amenity fund by Government should be examined so as to give an incentive to the employees to increase their own contribution to the fund.

BALVANTRAY G. MEHTA,

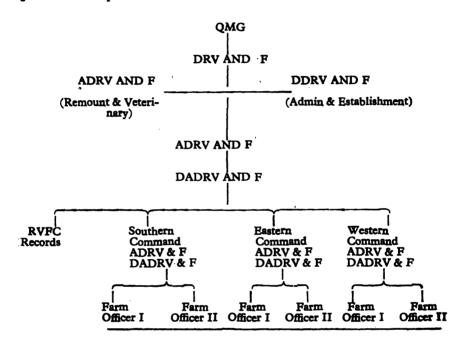
New Delhi; The 28th March, 1957.

Chairman, Estimates Committee.

APPENDIX I

(Vide PARA 3)

Organisational set up and Functions etc. of the Military Dairy Farms
Organisational set up



APPENDIX II

List of Military farms showing the number of Milch and Dry Cattle and the average daily yield of milk in each Farm

Name of Farm		No. of	milch	cows	No. o	f dry	COWS	Aven	age da	of milch cows No. of dry cows Average daily yield No. of milch of cows (lbs.) buffaloes	1 No. o	f milcl	-	No. o	No. of milth dry buffaloes.	th dry	ł	lverage	Average daily yield Buffs (Lbs).
		53-54	54-55	55-56	53-54	54-55	55-56	53-54	54-55	55-56	53-54	54-55	55-56	53-54	54-55	55-56	53-54	1 54-5:	54-55 55-56 53-54 54-55 55-56 53-54 54-55 55-56 53-54 54-55 55-56 53-54 54-55 55-56 53-54 54-55 55-5 6
Military Farm																			
Southern Command.	,	17	:	• :	12	:	:	15.5	:	:	113	911	139	25	48	37	14.3	14.3 13.9	14.7
2. Belgaum .	•	:	:	:	:	:	:	:	:	:	. 26	51	26	25	24	29	13.2	14.3	14.4
3. Bangalore .	•	72	104	74	4	32	53	14.3	15.7	14.2	376	289	38	147	113	100	12.5	13.2	13.58
4. Deolali .	•	67	39	53	81	21	7	21.4	9.61	22.0	182	108	170	69	88	8	13.2	13 2	13 4
5. Jubbulpore .	•	138	911	125	47	34	23	17 4		0.61 6.51	1/2	265	235	71	19	62	13.2	13.8	14.9
6. BMF Pachmarhi.	h.	8	53	59	9	7	15	Includ J	Included in MF Jabalpure.	MF rc.	:	:	:	:	:	:	:	:	:
7 Kirkee .		160	201	214	92	611	\$	18.8	18.8 17.3 17.4	17.4	417	471	388	112	144	152	13.8	14.8	13.32
8 Pimpri	•	72	107	102	56	45	38	17.11	19.6 19.75	19.75	373	346	380	901	148	901	13.6	13.3	13.87
9. Secunderabad	,	37	30	41	œ	15	10	21.0		6.61 6.71	226	358	369	8	135	108	14.3	13.5	13.69
10. Wellington		99	69	9	21	13	==	9.81	19.3	17.2	:	:	:	:	:	:	:	:	:

1.1. Agra	ä	Bastern Command	nd						•														
bad	_:	Agra .			35	31	31	9	12		14.5	12.2	14.3	102	181	178	56	4	41	15.4	14.5	14.9	
tin	12.	Allahabad			47	38	38	0	18	22	13.5	13.9	13.1	93	108	98	38	78	31	13.0	13.2	13.9	
tun	<u>.</u>	Bareilly			91	91	15	Ŋ	4	٣	22.4	20.4	20.6	85	49	89	27	7	~	12.9	13·I	14.4	
F 64 65 67 20 18 11 21.5 22.1 19'8 121 60 154 69 69 99 46 18 12.5 13.9 F	4	Dehradun		.•	112	102	86	28	12	25	18.0	6.81		249	8	246	11	7,	6	12.0	12.0	12.7	
The color The	ķ	Jhansi			64	65	29	70	18	11	21.5	22 · I	19.8	121	203	154	20	89	29	14.2	14.3	12.9	
mm 46 48 46 48 46 58 46 58 46 58 46 58 46 58 46 58 46 58 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63 63<	ν.;	Kanpur	•		:	:	:	:	:	:	:	:	:	181	150	135	39	9	81	12.5	13.2	14.5	
tt		Lucknow		٠.	121	148	124	62	42	\$	9.91	17.8		147	105	68	9	28	150	12.8	13.1	12.8	
Inth	œ.	Meerut			145	139	182	45	79	65	17.5	17.4	19.0	768	663	637	251	314	126	13.8	13.1	14.9	
Harmon H		Namkum			8	54	84	88	81	7	17.5	15.4	2.91	118	103	102	20	49	7	13.3	12.5	13.3	_
mmmand a . 16 129 146 55 75 71 16.4 18.2 15.7 470 430 433 144 172 159 12.2 13.0 Dagshai . 30 40 42 11 14 20 Included in Included in Kasauli	÷	Panagarh			:	:	:	· :	:	:	:	:	:	65	81	g	97	28	53	13.5	9.11	12.2	′
Dagshai 30 40 42 11 16.4 18.2 15.7 470 430 433 144 172 159 12.2 13.0 Dagshai 30 40 42 11 14 20 Included in Included in Kasauli	S	tern Comm	puz																		•		
Dagshai 30 40 42 11 14 20 Included in Included in Kasauli		Ambala			911	129	146	55	75	11	16.4	18.2		470	430	433	14	172	159	12.2	13.0	14.5	
Dalhousie . 51 69 65 17 17 18 2 21 1 23 1	.•	BMF Dag	tshai		œ .	9	42	11	14		Includa AF An	ed in I	Include	d in K	asauli	:	:	:	:	:	:	:	
Dalhousie 51 69 65 17 17 18.2 21.1 23.1 <		Kasauli			47	38	34	6	01	2	Ă		24.1	:	:	:	:	:	:	:	:	:	
hur	÷	BMF Dalh	ousie		51	69	65	17	17	17	18.2	21 . 1	1.62	:	:	` :	:	:	:	:	:	:	
lur 122 128 152 50 33 37 16.9 18.4 16.4 494 521 433 198 69 80 13.6 14.3 41 30 29 4 11 9 20.9 19.4 20.4 47 41 38 13 18 11 15.0 15.0		Perozepore			:	:	:	:	:	:	:	:	:	323	318	350	134	191	901		13.5	14.0	
41 30 29 4 11 9 20.9 19.4 20.4 47 41 38 13 18 11 15.0 15.0		Jullundur			122	128	152	20	33	37	6.91			<u>\$</u>	521	433	198	69	&	13.6	14.3	12.9	
		Mhow			41	93	53	4	11	0	20.9	19.4		47	41	, 86	13	19	11	15.0	15.0	15.3	

APPENDIX III

(Vide PARA 4)

Budget Estimates for the Year 1956-57

Southern Eastern Western Total	ю
Rs. Rs. Rs. Rs. Rs. Main Head 5, Sub Head B—Military Farms Revenue Expenditure (1) Cash Payments:— I. Pay of administrative staff I,00,000 96,000 96,000 2,92,00 2. Pay of permanent staff . 5,34,000 5,00,000 4,95,000 15,29,00 3. Pay of temporary staff . I4,44,000 I6,33,000 I3,62,000 44,39,00 4. General standing charges and miscellaneous expenses:— (a) Miscellaneous charges 38,000 50,000 40,000 1,28,00 (b) Miscellaneous charges 89,000 2,20,000 52,000 3,61,00	io
Main Head 5, Sub Head B—Military Farms Revenue Expenditure (1) Cash Payments:— 1. Pay of administrative staff 1,00,000 96,000 96,000 2,92,00 2. Pay of permanent staff . 5,34,000 5,00,000 4,95,000 15,29,00 3. Pay of temporary staff . 14,44,000 16,33,000 13,62,000 44,39,00 4. General standing charges and miscellaneous expenses:— (a) Miscellaneous charges 38,000 50,000 40,000 1,28,00 (b) Miscellaneous charges 89,000 2,20,000 52,000 3,61,00	ю
### B—Military Farms Revenue Expenditure	ю
I. Pay of administrative staff . 1,00,000 96,000 96,000 2,92,000 2. Pay of permanent staff . 5,34,000 5,00,000 4,95,000 15,29,000 3. Pay of temporary staff . 14,44,000 16,33,000 13,62,000 44,39,000 4. General standing charges and miscellaneous expenses:— (a) Miscellaneous charges 38,000 50,000 40,000 1,28,000 (b) Miscellaneous charges 89,000 2,20,000 52,000 3,61,000	ю
staff 1,00,000 96,000 96,000 2,92,000 2. Pay of permanent staff . 5,34,000 5,00,000 4,95,000 15,29,000 3. Pay of temporary staff . 14,44,000 16,33,000 13,62,000 44,39,000 4. General standing charges and miscellaneous expenses:— (a) Miscellaneous charges 38,000 50,000 40,000 1,28,000 (b) Miscellaneous charges 89,000 2,20,000 52,000 3,61,000	ю
2. Pay of permanent staff . 5,34,000 5,00,000 4,95,000 15,29,000 3. Pay of temporary staff . 14,44,000 16,33,000 13,62,000 44,39,000 4. General standing charges and miscellaneous expenses:— (a) Miscellaneous charges 38,000 50,000 40,000 1,28,00 (b) Miscellaneous charges 89,000 2,20,000 52,000 3,61,00	ю
3. Pay of temporary staff . 14,44,000 16,33,000 13,62,000 44,39,00 4. General standing charges and miscellaneous expenses:— (a) Miscellaneous charges 38,000 50,000 40,000 1,28,00 (b) Miscellaneous charges 89,000 2,20,000 52,000 3,61,00	
4. General standing charges and miscellaneous expenses:— (a) Miscellaneous charges 38,000 50,000 40,000 1,28,00 (b) Miscellaneous charges 89,000 2,20,000 52,000 3,61,00	0 62,60,000
and miscellaneous expenses:— (a) Miscellaneous charges 38,000 50,000 40,000 1,28,00 (b) Miscellaneous charges 89,000 2,20,000 52,000 3,61,00	
(b) Miscellaneous charges 89,000 2,20,000 52,000 3,61,00	
(b) Miscellaneous charges 89,000 2,20,000 52,000 3,61,00	О
	0
(c) Loss of cash	^
(e) Accommodation . 2,30,000 2,80,000 1,66,000 6,76,00	
(f) Plant and Machinery' 4,21,000 1,30,000 4,09,000 9,60,000	
(g) Conservancy charges. 10,000 10,000 25,000 36,000 (h) Water and electricity	0
	0 22,83,000
5. Transportation :	
(a) .Travelling and out-	
station allowances . 43,000 42,000 26,000 1,11,00	0
(b) Rail charges 2,50,000 3,00,000 2,48,000 7,98,00	0
(c) Other Transportation charges	0 10,00,000
	0 10,00,000
6. Production charges:—	
(a) Production of grain	
and fodder (cultiva- tion charges) 6,04,000 7,00,000 1,56,000 14,60,00	•
	J
(b) Feed of animals (in-	
cluding rent of	
grazing land and grazing charges) . 8,80,000 7,00,000 6,20,000 22,00,00	
grazing charges) . 8,80,000 7,00,000 6,20,000 22,00,00	•
(c) Hire of cattle and purchase of dairy	
produce by Dairy	
Farms 8,45,000 16,90,000 27,89,000 53,24,00	o · '
(d) Ice, salt, acid and other manufacturing articles 23,000 37,000 77,000 1,37,00	
	_ u.xco

I	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	
7. Purchase of fodder 8. Purchase of dairy produce by contract or otherwise where Military Farms do	2,25,000	90,000	11,95,000	15,10,000	15,10,000
not function	• •	••	• • •	••	••
9. Cash payments— custom duty 10. Other purchases—poultry	2,000	1,000		3,000	3,000
etc				••	
Total cash expenditure	57,73,000	65,54,000	78,50,000 2	,01,77;000	2,01,77,000
Deduct (I) Cash transactions:— Deduct—Receipts from sale of condemned buil-					
ding materials, cast-		63,000	36,000	1,89,000	1,89,000
ding materials, cast-] ings etc. Receipts Cash transactions:— 1. Proceeds from sales of	90,000				
ding materials, cast-] ings etc. Receipts Cash transactions:— 1. Proceeds from sales of dairy produce 2. Proceeds from sales of	2,02,000	5,65,000	5,72,000	31,57,000	31,57,000
ding materials, cast-] ings etc. Receipts Cash transactions:— I. Proceeds from sales of dairy produce	90,000		5,72,000	31,57,000	31,57,000
ding materials, cast-jings etc. Receipts Cash transactions:— I. Proceeds from sales of dairy produce 2. Proceeds from sales of grains and fodder 3. Proceeds from sales of vegetable.	2,02,000	5,65,000	5,72,000	31,57,000	31,57,000
ding materials, cast- ings etc. Receipts Cash transactions:— 1. Proceeds from sales of dairy produce 2. Proceeds from sales of grains and fodder. 3. Proceeds from sales of	2,02,000	5,65,000	5,72,000	31,57,000 37,000	31,57,000

APPENDIX IV

(Vide PARA 20)

Note about the Scheme and Projects Undertaken

(a) Construction of Military Farm, Namkum

The war time hutted accommodation of the farm is in a dilapidated condition; and as such, it has been proposed to construct a new modern farm of the same size at an estimated expenditure of Rs. 22,57,207 which includes cost of aquisition of land. This will be a phased programme spread over a number of years and is likely to be completed by 1958-59. The whole scheme is being submitted to the Departmental Finance Committee for their approval.

(b) Expansion of Military Farm, Panagarh.

The production unit at Panagarh has to be expanded in order to meet the full demands of dairy produce at Calcutta. Approximate estimates for the project are being collected from the M.E.S. and the exact cost of expendituré is not yet known. Action is being taken to get approximately 800 acres of land transferred for the expansion of the project.

(c) Reconstruction of Military Farm, Jhansi

Military Farm Jhansi is scattered over a large area. The Cattleyard is situated 3-4 miles away from the dairy and the lands, necessitating considerable expenditure in transportation of fodder and manure. Most of the existing buildings are old and have outlived their lives. A scheme is, therefore, under consideration for rebuilding the farm at an approximate cost of Rs. 19,01,350. Sufficient farmowned land is available. It will take about 2 years to complete the whole project.

(d) Reconstruction of Military Farm, Delhi Cantt.

The present farm is not a cattle-holding farm. It is situated on Najafgarh Road in temporary buildings which are not suitable for dairy purposes. Processed milk received from Military Farm Meerut is distributed to troops located at Delhi. This process is expensive and sometimes milk gets curdled during the summer season. To obviate all these difficulties, a scheme was examined to construct a cattle-holding farm at Delhi Cantt, but this did not materialise

due to scarcity of water in summer months even for drinking purposes. A new scheme costing Rs. 3.20 lakhs is now under consideration to build a new dairy farm where milk received from Meerut will be processed for distribution to troops.

(e) Military Farm Depot, Calcutta

Military Farm Depot Calcutta is at present functioning at Ballygunj and its buildings are in a very dilapidated condition. Any expenditure incurred on repairs will be a waste. A scheme has, therefore, been prepared to shift the depot from its present location to Alipore Remount Depot site where construction of essential buildings will cost Rs. 2.13 lakhs.

APPENDIX V

[Vide PARA 27]

Statement showing land in possession of Military Farms in the Commands as it stands on 31st March, 1955.

			Area of land	Area of land under crop cultivation.	ltivation.	Total area		Total area	Grand	
		ı	Irrigated	Unirrigated	Total .	of grass land	of land under roads and build- ings	of leased land	Total	Remar ks
		1	Acres	Acres ,	Acres	Acres	Acres	Acres	Acres	
Southern Command		•	527-97	898.04	1426.01	17,470.215	950.255	711.49	20,558·270	
Eastern Command		•	1,964 · 340	5,238.78	7,203.12	2,947.218	2,056.310	11,170.951	23,377.599	
Western Command		•	1234.460	2690.954	3925.414	2263.806	\$39.638	40.913	6,769·768	
Total .	•	' · '	3726.770	8827-774	8827-774 12554-544	22681.239	3546·500	11923 . 354	\$0705-637	

APPENDIX VI

(Vide Para 39)

Cattle Breeding in Various Military Farms

	<u> </u>	}					COWS		BUFFALOES	Si	
Name of Farm	E				1	Friesian	Indigenous	Cross bred and grade	Indigenous	Grade	Remarks.
1						7	3	4	8	9	7
Ambala				.		:	Sahiwal	XB/Grade	Murrah	Grade	Grading up with Murrah bulls
Kasauli	•	•	•	•	•	:	:	-op-	:	:	
Dagshai		•	•	•	•	:	:	-op-	:	: .	
Jullundur	•	•	•	•	•	:	Tharparkar	-op-	N.	Grade	Grading up with Nili bulls.
Ferozepore				•	•	:	:	:	EZ	-op-	-op-
Dalhousie		•	•	•	•	:	:	XB/Grade	:	:	
Mhow	•	•	•	•	•	:	:	•	:	Grade	Grading up with Murrah bulls.
Agra .	•	•	•	•	•	:	Hariana	:	:	-op-	-op-
Lucknow	•	•	•	•	•	:	Sahiwal	XB/Grade	:	-q-	-op-
Bareilly	•	•	•	•	•	:	:	-op-	:	-op-	-qp-
Dehra Dun	•	•	•	•	•	Friesian .	:	-op-	:	-op-	-do-
Jhansi .	\cdot	\cdot	\cdot	$\cdot $:	:	-op-	•	- op-	-op-

-						7	3	4	80	9	7
Namkum						:	:	XB/Grade	:	Grade	Grading up with Murrah
Kanpur		,	•	•	•	:	:	:	:	-	-op-
Panagarh	•				•	•	:	:	:	þ	- op -
Allahabad	•			•	•	:	Sindhi	:	Murrah	op	-op
Meerut.					•	:	Sahiwal	XB/Grade	Murrah	:	:
Jabalpur				•	•	:	Tharparkar	ф	:	Grade	Grading up with Murrah Bulls
Ahmednagar		•	•		•	:	•	:	:	o p	-op-
Deolali.	•		•	•	•	:	<u>.</u> :	XB/Grade	:	op.	-op-
Kirkee .		•	•	•	•	;		o p	:	-op-	34 - 6P
Bangalore	.,	•	•	•	•	:	Sindhi	:	:	. \$	÷
Belgaum		,	•	•	•	:	:	:	Jaffarabadi	op	-op-
Pimpri .				•	•	:	:	XB/Grade	:	-op-	-op-
Pachmarhi				•		:	•	-op-	:	:	:
Wellington					•	•	•	-op-	:	:	:
Secunderabad.	i				•	:	:	-op-	:	Grade	Grading up with Murrah Bulls

APPENDIX VII

(Vide Para 40)

Note containing views on Selective Breeding and Cross Breeding expressed by Dr. Norman C. Wright in his report on the development of the Cattle and Dairy Industries in India

Owing to the relatively low milk yields of indigenous Indian breeds it is, perhaps, natural that breeders have tended to rely on cross-breeding with sires or high-yielding European breeds to raise the productivity of widely adopted by the Military Dairy Farms and also certain Agricultural College dairy herds. The immediate results are certainly striking. The first cross (half-bred) gives on an average double the yield of its indigenous dam, while it also breeds more regularly. With further crossing the results have not. however, been so successful. Mating half-bred to half-bred is very questionable value; even if a fixed type could ultimately be obtained (which is doubtful) the amount of 'culling' of unsatisfactory animals would make the method extremely expensive. Back crossing improves the constitution but reduces the milk yield. Forward crossing, on the other hand, while maintaining milk yield is liable to result in a deterioration of physique and in high mortality, particularly among calves. This latter difficulty has to a great extent been overcome by improved technique in calf rearing. Deterioration in the constitution of adult stock appears to be due not so much to the cross-breeding as to the effect of high milk yield under the rigorous climatic conditions of India. Thus it has been shown that there are indications of increased susceptibility to disease and loss of constitution even among Indian dairy cattle when their milking performance improve......

If, however, cross-breeding is to be discouraged, what alternative remains which will provide animals of equally satisfactory milking capacity? The answer to this question, may be found in the extensive breeding experiments which have been carried out at various centres and which show that by careful selection indigenous strains of Indian cattle can be built up which are capable of giving remarkably high milk yields.

Mr. F. A. Stockdale, writing of conditions in Nigeria states "The introduction of strains from outside will only add to the complica-

tions which already exist and produce an even more heterogenous collection of animals than at present exist....... In my view a policy of rigid selection from the local cattle would be more calculated to produce results of lasting value than could be achieved by the introduction of the blood of strains of cattle from outside. I consider that these views are equally applicable to Indian conditions.

In practice, however, one of the difficulties is that the building up of high milk yielding strains is relatively slow in comparison with the immediate results obtained by cross-breeding with European stock. On account of this fact it appears almost inevitable that reliance will continue to be placed on cross-breeding for high milk yield until there is a sufficient nucleus of high yielding Indian cattle to supply the necessary number of improved stock for use in localities where high milk yield are specially desired as, for example, in the production of milk in the vicinity of cities and large towns. This indicates the extreme urgency of taking immediate steps to extend the facilities for selecting and improving indigenous milking strains of Indian cattle.

APPENDIX VIII

(Vide PARA 58)

Statement showing the number and designations of officers and Staff of various pay ranges in Military Farms

Name of post		Existing Scale	Prescribed Scale
Asstt. Director of M	lilitary	Rs.	Rs.
Farms		900 to 1,500	800-50-1200
Dy. Asst. Director.		200-30/2-EB-290 & 410	650-30-800 (If promoted from Farm Officer).
Military Farms		160-24/2-400-E.B. at 200 plus 200 p.m.	ted from Tarm Careery.
Farms Officer		Do.	275-25-500-EB-30-650
Manager	•	200—30/2—500—EB—290 & 410	160—10—250—EB—10—300 —15—450.
		160-24/2-400-EB-280	
Supervisor	•	100 10/216015225 EB150 & 190	0— 100—8—140—10—200— EB—10—230.
		84—8/2—132—12/2—204— EB—132.	
Asset. Supervisor		50-5-90	73—3—105
		45-4-7785-EB-61	
Sub-Asstt. Supervisor	•	60 P.M.	60-5/2-75.
Store Keeper (Upper Division)	•	755-100	80—5—120—EB—8—160
_		65—4—77—85 — EB—77	•
Store keeper (Lower division)	•	40-4-68	55—3—85—EB—4—125—5 —130
		37-3-49-4-61	•
Clerks Grade A (Upper Division)	•	150—10—300—EB—200 & 250	80—5—120—EB—8—200— 10/2— 220.
		95—7½—140—10—300—EB —140—100—10—200	
Clerks Grade B. (Lower Division)	•	50—4—90—3—150—E.B.— 90 & 120	45385EB4125 130.
		45—2½—100 (EB 80) 60—5—100—EB—10-120	_
Clerks Grade C		45—5—60—EB—10-120.	To be abolished
Agricultural Chemist	•	250—25/2—500 200—20/2—300—400 (EB—300)	250—10—300—15—450— 25/2—500

Name of post	Existing Scale	Prescribed Scale
Bacteriologist Research Chemist Manufacturing Chemist Shift Chemist	Rs. . 200—15—350—10—500 . 200—15—290—10—450 . Do. . 170—15—260—10—420	Rs. 160-10-250-EB-10-300-15-450
Sub-Divisional Officer	. 150—10—330	100-8-140-10-200 -BB
Technical Overseer Draughtsman Foreman Assist. Foreman Machine Hand Class I Artificer Class I	. 120-5-150 . 50-5-100 . 100-5-150 . 90-5-120 . 75-5-90	
Machine Hand Class II Artificer Class II	. 60-5-75} . Do.	60-5/2-75
Machine Hand Class III Artificer Class III	_	40-1-50-2-60
Machine Hand Class IV Artificer Class IV .	· 30—3—45}	35—1—50
Milk Writers Boildennan	:	40—1—50—2—60 50—2—60—3/2—75
Gowalas Bull attendants Buttermen Deliverymen Dhobi	: }	35—I— 5 0
Tractor Driver		90-5-120
Chowkidars Syces Bullock Drivers Grass Gutters General labourers Grazers Calf Boys Cultivation Labourers Cartleyard Labour Boiler Labour Mule Drivers Sweepers		3° 1 35
Dairy Collies	. j	

APPENDIX IX

Statement showing summary of conclusions/recommendations of the Estimates Committee relating to the Ministry of Defence—Military Dairy Farms

S. No.	Reference to para No. in the Report	Summary of conclusions/recommendations
I	2	. 3
	I 10	The Committee regret to note that the farm at Bareilly has uniformly incurred loss ever since 1949-50. The loss has been attributed to high overheads, bad management, and weak supervision. It was revealed that inspite of inspections and detailed instructions, the position remained the same for about a year and a half mainly because the instructions were not being carried out. The Committee consider that this case clearly indicates the necessity of keeping a close watch of the financial results.
	2 10	The Committee noted that in certain farms there are wide fluctuations in the profit earned from year to year and in certain others after a number of years of profit, suddenly losses occur. The Committee would, therefore, recommend that the financial results in all cases should be carefully reviewed every year and prompt measures taken to set right the defects noticed.
	3 II and 12	The Committee regret to observe that the General Administration Reports on the working of the Military farms in respect of each year are brought out very late. The Committee recommend that the annual Reports should be compiled within three months of the close of the financial year to which they pertain.
		The Committee further recommend that the General Administration Report which as at present published contain only some statistical data and show the financial results should be made an attractive volume and should contain more interesting details which should be presented in a better manner. The aim should be to make it serve partly the purpose of publicity also.

I 2 3 The Committee observe that the rates of Military 15 farms are much higher than the selling rates of Government or private farms in the adjoining ·areas. The Committee consider that the present system under 16 5 which costing is done merely for the purpose of Proforma Profit and Loss Account does not serve the purpose of bringing to light inefficiency and wastage in production. The Committee, therefore, recommend that study of costs should be undertaken in respect of representative farms in different zones and that they should be compared both inter-se and with those of private, co-operative or Government Dairy farms. They also recommend that the rate should be fixed mainly on the basis of market rates after making necessary allowance for the quality of the product since only then can efficiency be improved. 6 17 The Committee learn that on account of the higher rates charged by the Military Dairy farms, officers and other ranks of the Defence Services prefer to buy milk from other sources. Thus the facilities available are not made use of even by those who are normally expected to derive benefit from them. The Committee feel that this is an unfortunate situation and steps should be taken to remedy it. The Committee note that it is now intended to sell 17 7 milk at slightly cheaper rates to officers and other ranks charging higher rates to others. The Committee feel that while this may be a temporary expedient, a permanent solution should be found only on the basis of increased all round efficiency and consequent lowering of costs. 8 21 The Committee regret to find that the Military farms have not actively, and systematically participated in the Five Year Plans in the context of large scale national developments in the fields of Animal Husbandry and Dairying. The Committee recommend that these farms should be assigned a definite role in keeping with their maximum capacity in the schemes for the development of animal

husbandry and dairying in the 2nd Five Year Plan.

1 2 3

They would urge that this should be done expeditiously so that the results might be evident by the end of the second Plan period.

- The Committee regret to observe that even in the big cities like Madras and Calcutta, where the demand for milk by troops and military hospitals is sufficiently large, the proposals to set up farms have not been pursued vigorously and that no specific scheme has been included in the Second Five Year Plan.
- The Committee feel that the scope of the activities of the Military farms should be expanded to cater to the civilian requirements also to the extent possible so that the general public could also avail themselves of the advantages possessed by the Military farms, with their organisation, equipment and technique and also avail of the products of the modern dairy. As a first step in this direction, the Committee suggest that the farms should undertake supply of dairy products to civil hospitals in neighbouring areas.
- The Committee recommend that a careful watch should be kept over the costs of the battery operated insulated electric car which has been procured by the Military Farm, Delhi Cantonment and an early conclusion reached about its relative advantages. They would also recommend that thereafter leading industrialists and automobile producers in the country should be invited to see whether such cars could be introduced in the country for different purposes, both domestic and commercial and if so whether they could be manufactured in this country.
- The Committee recommend that the farms should make an effort to produce all the dry fodder required for the army animals as that would involve raising the output by less than 10%. Exceptions need be made only in respect of the special type of camel fodder and that required for animals at such places to which transport from the nearest possible place of production will involve prohibitive cost.
- The Committee suggest that the experience of the Military farms in the matter of production of

fodder and the result of feeding of the different types of fodder should serve as valuable fields for the cattle breeders. They, therefore, recommend that the Military farms should interest the farmers in the neighbourhood in the growing of the fodder crops. The effect of feeding the cattle with these crops on the yield and cost of production of milk as well as their influence on soil fertility should also be carefully investigated and the results should be made available to the agriculturists and keepers of dairy animals. The Committee, believe that the Military farms are well suited to conduct such study and that they should, therefore, be used as demonstration farms for spreading such knowledge.

- The Committee suggest that the Military farms should aim at growing more vegetables in the farms. The first objective should no doubt be to meet the entire requirements of fodder but when that is fulfilled whatever lands are left should be utilised for growing vegetables.
- The Committee suggest that the economics of the development of land by providing additional irrigation facilities should be carefully studied not only with reference to the finances of the Military farms, but also taking into account the overall economy that will be effected in other directions and the benefit of total additional production of vegetables to the region.
- The Committee recommend that besides the problems arising in the various darry farms, research should also be conducted on practical problems generally facing the public in the areas where the farms are located. They feel that there is scope for detailed investigation and research on the kinds of cattle food, cattle fodder and grass available in different parts of the country, and their nutritive values. Further there is scope for research on the feeding standards for calves, young animals, bulls and milch animals based on the type of cattle food generally available in the region.
- The Committee recommend that those military farms which are in a position to undertake research on subjects pertaining to rearing, feeding, management and health of cows, economics of milk production

and studies pertaining to the utilisation of food in relation to milk production, the large scale production of fodder and the relative efficiency should be given the facilities and encouragement to conduct such research by the National Dairy Research Institute and such schemes should be fitted into the general scheme drawn up by that Institute. They further recommend that necessary action in this regard should be taken in coordination with the Ministry of Agriculture.

- 18 36 While the Committee welcome the move to utilize the Military farms as suppliers of good quality bulls for breeding purposes to the key village blocks, they would suggest that more extensive use should be made of the Military farms in this direction. The Committee, therefore, recommend that the Ministry of Agriculture should in consultation with the Military farms Wing of the R.V.F. Corps devise plans for putting the existing organisation to the best use. As an immediate measure the Committee recommend that plans should be made to serve every village within a radius of about 20 miles from the Dairy farms in order to improve
 - The Committee urge that a working scheme for opening more Artificial Insemination Centres at the Military farms should be prepared and enforced at an early date.

the type of cattle in those villages.

- The Committee suggest that the Military farms should participate in the work of national development by giving suitable aid and technical advice to recognised good breeders to ensure quality animals with known pedigree. There should be a programme to carry out breeding operations in the farms which should be integrated into the general programme for development of better breeds of cattle in the country.
- The Committee recommend that a definite breeding policy should be laid down and followed consistently year after year and generation after generation particularly as the results of changing the breeding policy from time to time are believed to be far from desirable. Further, the Committee feel that the period of 25 years allowed to the

3

I

2

Military Farms to import bulls is too long. They recommend therefore that the entire breeding policy should be reconsidered after obtaining expert advice. 22 The Committee suggest that the views on selective 40 breeding and cross breeding expressed by Dr. Norman C. Wright in his Report on the Development of the Cattle and Dairy Industries in India reproduced in Appendix VII may be given due consideration in determining future breeding policies. 23 42 The Committee suggest that the Military farms should in co-operation with the civil authorities of the Veterinary and Animal Husbandry Departments demonstrate to the civil population in their area scientific methods of breeding dairy animals and the benefit to be derived by such methods. The Committee recommend that the Military Dairy 24 43 farms should be a centre of guidance and instruction on the maintenance of animals to Gowalas and keepers of dairy animals in the neighbouring arca. 25 The Committee consider the present system of free distribution of calves to the general public without having any machinery to watch the fate of the calves is unsatisfactory. The Committee suggest that as far as possible the calves should be given to well organised Goshalas and farms even by cooperatives, local and public bodies, institutions and individuals keenly interested in the work. In other cases, it may be arranged in co-operation with the Veterinary and Animal Husbandry authorities that the growth and development of the calves will be watched periodically by those authorities. They also suggest that efforts should be made to integrate this system of free distribution of calves with the calf-rearing schemes organised by the State Governments. 26 46 The Committee suggest that a firm policy regarding the retention and development of buffalo herds in Military Farms should be laid down in consultation with experts.

1 2 3

The Committee suggest that the Committee of Experts for Military Farms should meet more frequently and besides recommending measures for effecting improvements in Military Farms at technical, administrative and financial levels should also take concrete steps to effect greater coordination between the Military and Civil Dairy Farms. The Committee further suggest that representatives of leading private dairy farms and non-official experts in the line should also be associated with the Experts Committee so as to derive mutual benefit.

28 48 The Committee observe that there are wide variations in the yield of milk of the same breeds of cattle at various military and civil farms and consider that such wide variations should be carefully studied on a comparative basis with a view to deriving mutual benefit.

The Committee suggest that in order that the coordination between the Military and the Civil
Dairy Farms, which at present appears to be only
at the highest level, may be more effective, it should
be arranged at various levels. The officers in
immediate charge of the farms should also have
periodical meetings with the civil authorities concerned with Animal Husbandry and Dairying with
non-officials and representatives of institutions
interested in the subject.

The Committee feel that the public do not have a proper appreciation of the work done by the Military farms. The Committee recommend that interesting literature about the activities of the farms, the various experiments conducted, the way in which practical problems have been solved, the methods adopted to increase milk production, and similar other useful information should be brought out.

31

52

The Committee further recommend that attractive annual reports on the working of the Dairy farms providing informative and instructive material should be brought out and made available to the persons and institutions interested in the subject as well as Members of Parliament and legislatures of the States in which the farms are situated.

1	2	3
32	53	The Committee recommend that press correspondents should also be invited to visit farms and the various aspects of the work should be explained to them so that they may also help in the publicity.
33	54	The Committee recommend that the facility afforded by the Military Farms in regard to the giving away of calves free to the public institutions and members of the public should also be given publicity and literature on the subject sent to every Goshala and Gosamrakshak Committee in the country.
34	56	The Committee recommend that results of experiments on dairying problems of local interest should be given publicity in the locality by arranging meetings with the leading persons of the locality by demonstrations and by ensuring co-ordination with village development organisations and social workers.
35	57	The Committee recommend that organised visits to the farms from different educational institutions should be arranged in co-ordination with the educational authorities. They feel that such visits will help in making the future citizens of the country interested in dairying and animal husbandry, which are of fundamental importance to the country.
36	60	While the Committee agree that the staff should have ample opportunities of seeking advancement in career, they would like to stress that all categories of staff should be given intensive training in dairying.
37	61	The Committee recommend that special efforts should be made to fill the quota reserved for Scheduled Castes and Schedled Tribes by persons from those categories.
38	62	The Committee feel that the desirability of Government contributing to the Amenity Fund should be examined so as to give an incentive to the employees to increase their own contribution to the fund.