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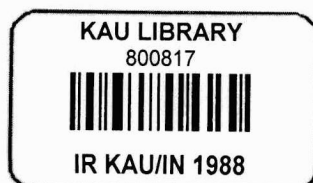
INVENTORY

ON

FARMS

(FACULTY OF VETERINARY & ANIMAL SCIENCES)

1988



DIRECTORATE OF RESEARCH
KERALA AGRICULTURAL UNIVERSITY
VELLANIKKARA - 680 654, TRICHUR



800817

12 KAU/10/1988

PREFACE

The Kerala Agricultural University was established in the year 1972 with the Main Campus at Vellanikkara, in Trichur District. The University has seven Constituent Colleges located in four campuses and 20 outlying off campus Research Stations. The two stations viz. Livestock Research Station at Thiruvazhamkunnu and Cattle Breeding Station at Thumburmuzhi are attached to the College of Veterinary & Animal Sciences as its Instructional Farms. Even from the very beginning, the Government of Kerala had transferred all the Research Stations to the University.

Five agroclimatic Regions/Zones have been identified in the State. Under the new reorganised set up and with the commencement of NARP, there is one Regional Station in each region with sub-stations attached to it. The Regional Associate Directors of Research located in the main station viz., the RARS, co-ordinate and monitor the research activities of each region.

The necessity for a comprehensive document incorporating the details of infrastructural and other facilities of all the Stations is keenly felt. An attempt has therefore, been made in this publication to include the aforesaid details of the off campus Research Stations of KAU. It is hoped that this document will be of relevance not only to the agricultural research workers of KAU, but also to other visiting dignitaries concerned with agricultural research. The efforts taken by Station Heads and their colleagues in supplying the information and Prof.S Balakrishnan, Associate Director of Research(Plg) at Headquarters in compiling the same are gratefully acknowledged. The staff of the Directorate of Research have also helped to bring out this compilation.

Needless to say that this document has to be updated at periodic intervals to increase its utility.

Vellanikkara,
Dt. 5-1-1989.


(M ARAVINDAKSHAN)
DIRECTOR OF RESEARCH
KERALA AGRICULTURAL UNIVERSITY

C O N T E N T S

Sl.No	Name of organisation	Page No
1	University Livestock Farm & Fodder Research Scheme, Mannuthy	VAS- 1
2	University Poultry Farm & Duck Farm, Mannuthy	VAS-10
3	University Pig Breeding Farm, Mannuthy	VAS-18
4	Livestock Research Station, Thiruvazhankunnu	VAS-24
5	All India Co-ordinated Research Project on Goats for milk, Mannuthy	VAS-32
6	Cattle Breeding Farm, Thumburmuzhi	VAS-43

PARTICULARS OF RESEARCH STATIONS

Name of Station : University Livestock Farm & Fodder Research Scheme, Mannuthy

Zone in which located : Veterinary College Campus, Mannuthy

Address with pincode : University Livestock Farm, Veterinary College Campus, Mannuthy Pin - 680 651

Phone No. : 25237

History of the Station:

Originally the farm was started by the Cochin State some 50 years ago with a view to produce enough milk and draught bullocks for agricultural operations.

After the formation of the Kerala State, the administration of the farm was carried out by the State Animal Husbandry Department. The farm then assumed the status of Kerala State Government Dairy Farm, having the main objectives of production and distribution of stud bulls to various by village centre and viterinary dispensaries, besides milk production.

In the year 1955, the farm served as an adjunct of Veterinary College to provide teaching facilities to students for the conduct of practical classes, which was later integrated in the year 1961. In 1972, this was brought under the control of Kerala Agricultural University and became University Livestock Farm.

I. FARM AND LAND PARTICULARS

1. Farm location:

- a) Latitude : 10°32' North
- b) Longitude : 76° 10' East
- c) Altitude(MSL) : 1.5 m above MSL
- d) Name of road/high way with KM stone particulars : Trichur Dalghat NH-47 6km of East of Trichur Municipal town
- e) Nearest railway station : Trichur Railway Station

2. Land particulars:

- a) Total area of farm : 69 ha
- i) University lands : 69 ha
- ii) Leased lands : Nil
- iii) Others (Specify) : Nil

b) Classification of land:

- i) Wetland (ha) : Nil
- ii) Garden land (ha) : 19 ha
- iii) Dryland (ha) : 50 ha

3. Meteorological data - NA

a) Rainfall

b) Temperature (Mean monthly values) : Furnished in

- i) Maximum (°C) : Annexure - I
- ii) Minimum (°C)

4. Soil types:

- i) Classification and area: Lateritic loam
- ii) Nutrient status of each class : Medium

5. Cultivation pattern:

- i) Total area of farm : 69 ha
- ii) Total area under cultivation : 45 ha
 - a) Experiments : 1 ha
 - b) Bulk cultivation : 44 ha
- iii) Area occupied by buildings, roads, threshing floor etc. : 5 ha
- iv) Area not utilised/ vacant (ha) : 20 ha at hill top is not cultivated, but local grass obtained from that area is used as fodder
- v) Area not suitable for cultivation (ha) : 5 ha

6. Cropping pattern:

- i) Crop grown:

a) Perennial crops and their area(ha) :

Fodder Crops

- 1. Guinea -- 15 ha
- 2. Napier -- 1.5ha
- 3. Hy. Napier -- 17.5 ha
- 4. Pasa -- 2 ha
- 5. Congosignal -- 1 ha

b) Annual crops and area :

Fodder Crop

- Maize -- 8 ha

7. Out turn/yield of crops :

Crops	Napier	Guinea	Maize	Others
Area cultivated	19ha	15ha	8ha	3ha
Average yield/ha	125t/ha	50t/ha	12.5t/ha	35t/ha
State average yield/ha	-- Not furnished			
Cost of cultivation/ha	-- Not furnished			
Income/ha	Rs.25000/ha	10000/ha	3750/ha	7000/ha

8. Particulars of buildings

i) Buildings

- 1. University Livestock Farm and FRDS Office -- 1972
- 2. University Livestock Farm building Shed No.1 to 8 -- 1972
- 3. Silopit -- One
- 4. Shurry pumping room -- 1
- 5. Waiting shed for labourers -- 1
- 6. Bunker silo -- 1

ii) Farm structures : Nil

iii) Fencing and boundary wall

Total farm perimeter -- Not furnished

Fencing available

9. Irrigation facilities:

i) Source of irrigation - : Pond and well river/well/others

ii) No. of wells - Open wells/ : Pond and well tube wells/others

- ii) No. of wells - : Ponds - 2
 open wells/tube wells/others : Wells - 2
- iii) Pumping source with : Electric motors - 1 5 HP
 HP - Electric motor/ Diesel engines - 2 5 HP
 Oil engine : Slurry pump) Electric - 10HP
- iv) Area irrigatable : 13 ha
 in farm

10. Livestock particulars: Annexure -- 1

11. Particulars of poultry:

12. Farm machineries:

1. Tractor with Trailors - 2 nos
2. Kubota Power tiller - One
3. Bullock cart - two
4. Biogas plant - One

13. Equipments: NIL

14. Budget particulars: Total for the station including all schemes

Year	Actual expenditure	Actual receipts	Profit(+) or loss(-)
1982-83	17.82875	4.56310	The fodder grass is supplied to
1983-84	20.38452	5.25144	goat farm and
1984-85	24.21906	6.20753	other depart- ments of College
1985-86	28.68956	6.88908	
1986-87	26.94319	6.12819	
1987-88 (anticipated)	24.59000	5.95000	

15. Budget particulars - for bulk cultivation of crops (Rs. in lakhs)

Year	Actual expenditure	Actual receipts	Profit(+) or Loss(-)
1982-83	7.21893	0.22192	Fodder produced is supplied to
1983-84	7.89189	9.77732	ULF, Goat farm and
1984-85	9.57640	0.83386	other departments of Vety. College.
1985-86	12.81102	0.38695	Expenditure includes wages of
1986-87	12.78726	0.45972	labourers sent to
1987-88	8.55300	0.45000	Vety. College also.

(ie. about 35 labourers/day)

16. List of Ongoing Schemes/Projects and data of implementation:

- i) University Scheme (Plan) -
- ii) Non-Plan Scheme -
- iii) ICAR Scheme (other than NARP)
- iv) NARP -
- v) Others (Specify) -

17. Particulars of experiments conducted -

1. Varietal trials with hybrid and composite maize
2. Manurial trial on Hybrid Napier
3. Varietal trial on cowpea under different P&K levels
4. Development of an economic forage cropping pattern for the middle lateritic belt of Kerala
5. Effect of foliar application of three plant growth promoters on the growth and yield of standing crop of hybrid Napier (Rainfed)
6. Effect of foliar application of the plant growth promoters on the growth and yield of planting crop of Napier (Irrigated)

18. Staff particulars

i) Scientific

Livestock Farm

Professor	-	One
Asst. Professor	-	One
Farm Assistants	-	Four

Title of Scheme	Assoc Dire.	Prof.	Assoc Prof.	Asst. Prof.	Jr. Asst. Prof.	Total
Fodder Research & Development Scheme	Nil	Nil	Nil	1	1	2

ii) Para technical

Title of Scheme	Farm Super- visor	Farm Asst. Sr. Grade	Farm Asst. Gr. I	Farm Asst. Gr. I	Lab. Asst. Gr. III	Total
Fodder Res. & Department Scheme	2	1	1	1	1	6
University Live-stock Farm		2	2			4

19.i) Labour strength:

	Class IV	Permanent		Casuals		Totals	
		M	F	M	F		
Fodder Research & Development Scheme	2	(28	41)	69	(98 68)	156	237
Livestock Farm	2	35+13		-			50

ii) Wages rates at present for different categories:

Permanent Male	- Rs. 525 - 10 - 625 - 15 - 775
" Female	- Rs. 515 - 10 - 615 - 15 - 765
Casual Male	- Rs. 31.75
" female	- 30.25
Class IV	- Rs. 550 - 800

20. Percentage of expenditure over total incurred for meeting the salaries etc. of i) Staff ii) Para technical and iii) Labourers

21. Salient research achievements in brief since inception of station. Give details separately for the periods:

- i) Upto 1956 - NA
- ii) 1956-1972 - NA
- iii) 1972 - till date

Fodder Research & Development Schemes

Varietal trials with hybrid and composite maize under different N levels showed that varieties Him.123, Deccan, Histarch and Ganga-5 are superior to vox. Vijay, Ganga safed 2 and Karnal. N application at the rate of 120 kg/ha has significantly superior effect over applications @ 40 & 80 kg per hectare.

Varietal trial on fodder cowpea under different p & k levels showed that var C-1420 & C-2528 are superior to New Era & Local. Levels of p & k have no significant effect on yield.

22. Farm revenue improvement programme

i) Details of bulk/Commercial cultivation undertaken

Furnished under item no.7

ii) Area still available for undertaking bulk/commercial cultivation -

NIL

23. Any other relevant particulars:

NIL

ANNEXURE - I

Average weather conditions at Fodder Res. & Development Schemes,
Mannuthy

	January	February	March	April	May	June	July	August	Septem.	Octo.	November	December
Maximum temperature	31.9	34.5	35.9	35.3	33.3	30.0	28.6	29.1	30.2	30.8	30.9	30.6
Minimum temperature	21.3	21.1	23.5	24.9	24.7	23.4	22.9	23.2	23.4	23.3	23.0	22.2
Relative Humidity %	58	57	62	69	73	86	88	86	83	81	73	66
No. rainy days	0	1	1	4	9	22	25	21	13	12	6	2
Rainfall (average of 10 years)	2.01	7.0	5.0	50.0	165	817	760	463	234	271	177	16.0

ANNEXURE-II

LIVESTOCK PARTICULARS1. CATTLE

	Jx	HFX	B. Sm	Others	Total	Buffaloes	Grand Total
Calves 0-3m							
Males	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Females	4	-	8	-	12	-	
Total	4		8		12		12
Calves 3-6m							
Males	-	-	-	-	-	-	-
Females	14	01	14	-	29	-	29
Total	14	01	14	-	29	-	29
Heifer 6m above	-	-	03	-	03	-	03
Cows in milk	50	8	45	-	103+8		111
Cows dry & pregnant	40	2	46	-	88+51		139
Total	90	10	88	-	188		
Bulk	Nil						
Buffaloes						01	01
Bullocks					07		07
Grand Total					239		302

PARTICULARS OF RESEARCH STATIONS

Name of Station : University Poultry Farm & Duck Farm
 Zone in which located : Mannuthy
 Address with Pincode : University Poultry Farm and Duck Farm, Mannuthy - 680 651
 Phone No. : No telephone connection
 Nearest phone - 25237(AICRP on Poultry)
 History of the station : The station was originally a regional Poultry Farm of the department of Animal Husbandry established for the purpose of multiplication and distribution of superior egg laying germ plasm. On the 1st of February 1972 the farm was transferred to the University on its formation. During 1973 - 74 it came under the technical control of the Department of Poultry Science. The farm ^{was} then transformed into a research and instructional establishment.

The farm functions as a field laboratory of the department of Poultry Science catering to the research and academic needs by providing materials and facilities for research and teaching. The station maintains five breeds of domestic chicken, a breed of turkey and quail. The main functions revolve around reviving the available germ plasm production and distribution of cross bred chicken for backyard poultry farming, taking up independent and associated research on all aspects of poultry production, provision of training facilities to college departments and development departments and distribution and sale of poultry produces.

I. Farm AND LAND PARTICULARS:

1. Farm location:

- a) Latitude : 10° 32"N
- b) Longitude : 76° 16"E
- c) Altitude (MSL) : 22.25m above MSL
- d) Name of high way with
KM stone particulars : NH 47 Km - 6 from Trichur
- e) Nearest railway station: Trichur

2. Land particulars:

- a) Total area of farm : 1.5ha
(ha)
- i) University lands : Whole
- ii) Leased lands : Nil
- iii) Others (Specify) : Nil
- b) Classification of land:
- i) Wet land (ha) :
- ii) Garden land (ha) : 1.5 ha
- iii) Dry land (ha) :

3. Meteorological data (as annexure)

- a) i) Rainfall : -
- ii) No. of rainy days : -
- b) Temperature
- i) Maximum : $31.67 \pm 0.89^{\circ}\text{C}$ Mean 27.61
- ii) Minimum : $23.56 \pm 0.40^{\circ}\text{C}$
- c) Relative humidity : $73.99 \pm 2.51\%$
- Average

4. Soil types:

- i) Classification and area: NA
- ii) Nutrient status of : NA
each class

5. Cultivation pattern :

- i) Total area of farm (ha):
- ii) Total area under :
cultivation (ha)
- a) Experiments :
- b) Bulk cultivation (ha) :
- iii) Area occupies by : Almost whole area occupied by
buildings, roads, buildings (Poultry house & others)
threshing floor etc. (ha)
- iv) Area not utilised/vacant :
- v) Area not suitable for:
cultivation

6. Cropping pattern:

- i) Crop grown : No crops
 a) Perennial crops and their area (ha) : NA
 b) Annual crops and area(ha): NA

7. Out turn/Yield of crops : NA

8. Particulars of buildings:

i) Buildings:

Sl.No.	Name of building	Plinth area	Year of occupation	Cost etc.
1	Brooder Houses - 1	94m ²	1952	Cost not ascertainable since old buildings
	-do- II	"	"	
2	Broiler house	361m ²	1964	"
3	Breeding house No.I	479m ²	"	"
4	Breeding house No.II	409m ²	1982	Cost available with the DPP's Office since constructed and handed over to this Office by the Engg. Wing of KAU
5	Duck breeder house	"	"	
6	Duck layer house No.I	404m ²	"	-do-
	-do- No.II	487m ²	1987	
7	Grower house No.I	424m ²	1983-84	-do-
	-do-	424m ²	1986-87	
8	House for experimental birds(study purpose)	300m ²	1982-83	-do-
9	Field pens - 16 nos.	25m ² each	1952	Old building - cost not known

ii) Farm structures:

Threshing floor, seed stores, net house, glass house etc.

NA

iii) Fencing and boundary wall

Total farm perimeter : Approximately 800 mtrs.
 Fencing available : 200 metres (compound wall)

9. i) Irrigation facilities:

Source of irrigation river/well/others : NA

ii) No. of wells - Open wells/
 tube wells/others : One open well

iii) Pumping source with : Not available. Depend on main
 HP - Electric motor/ pumping source
 oil engine

iv) Area irrigatable in farm: NA

10. Livestock particulars:

Particulars of animals	No	Age
NA		

11. Particulars of Poultry:

Particulars of birds as on
 31-7-87

Details furnished on page 8

Age	No	
0-1 month	289 nos	Breed with information furni- shed on page 8 as annexure to Sl.No.10
1-2 months	1102 "	
2-3 "	602 "	
3-4 "	..	
Adult - Male	493 "	
Female	563 "	
Total	3049 nos	

12. Farm machineries

<u>Sl.No.</u>	<u>Name of machinery</u>	<u>Cost</u>
1	Generator 10 KV Kirloskar make	Purchased and supplied by the Director of Physi- cal Plant
2	Incubators	Supplied from Veteri- nary College - Unicef supply
3	Allwyn refrigerator - 268ltrs. capacity	

13. Equipments : Nil

14. Budget particulars: Total for the station
 including all schemes (RS in lakhs)

Year	Actual expenditure	Annual receipts	Profit(+) or Loss (-)
1982-83	6.02	3.09	(-) 2.93
1983-84	6.44	2.57	(-) 3.87

1984-85	8.66	4.74	(-) 3.32
1985-86	8.25	3.54	(-) 4.71
1986-87	5.97	1.08	(-) 4.89
1987-88 (anticipated)	8.5	2.5	(-) 6.0

15. Budget particulars - For bulk cultivation of crops

NA

16. List of ongoing schemes/projects and data of implementation:

i) University Scheme (Plan)

- 1) Duck Farm for training and research
- 2) Selection and management studies in Japanese Quails for meat production.

ii) Non-Plan Scheme Nil

iii) ICAR Scheme (Other than NARP) Nil

iv) NARP Nil

v) Other (Specify) Nil

17. Particulars of experiments conducted - Give titles - discipline-wise

18. Staff particulars

i) Scientific

Category	Sanctioned	in provision	remarks
Professor	Nil	One	Dr R Sabarinathan Nair, Professor, Department of Poultry Science holding charge of the station.
Assoc Professor	One		Dr. CV Andrews, Asst. Professor working against the post.
Jr. Asst. Professor	two		Both posts are lying vacant One post from 1-12-82 and the other one since creation ie. from 1/85

ii) Para technical

Title of Scheme	Farm Manager	Farm Asst. Gr.I	Farm Asst. Gr.II	Lab.	Lab.	Total
				Asst. Gr.I	Asst. Gr.II	
Selection and Management Studies in Japanese Quails for meat production			1	1
University Poultry Farm & Duck Farm, Mannuthy						
	F.S.(Vety) Gr.II	Hr.Gr.1				
	F.A.(Vety) Sr.Grade	1				3
	G.A.(Vety) Gr.II	1				

Poultry Attendants - Sanctioned 3 in position 2

iii) Administrative and supporting staff:

Title	Ad.Officer/ Ad.Asst.	Accounts Section Officer	Assts. Officer	Typi-Poons sts	Total	
Uni. Poultry Farm & Duck Farm, Mannuthy	4.4.1	2	1	4

19.i) Labour strength:

Class IV	Permanent	Permanent Casuals	Casuals	Total
Nil	Male-2 Female-12	..	Being engaged according to necessity from central list maintained by the Fodder Res. Officer	14

ii) Wages rates at present for different categories:

Wage. rate of Permanent labourers.

	Male	Female	
Basic wages	230.00	240.00	
Fixed DA	45.00	45.00	
Variable DA	455.40	455.40	
Interim relief	30.00	30.00	
HRA	5.00	5.00	
Washing allowance	3.00	3.00	
	-----	-----	
Total	813.40	778.40	Wages for July 1987
	=====	=====	

Casual labourers

Basic wages	6.75 per day	5.25 per day	
DA	22.40	22.40	
	<u>29.15</u>	<u>27.65</u>	Wages for July 1987
	=====	=====	

20. Percentage of expenditure over total incurred for meeting the salaries etc. of i) Staff ii) Para technical and iii) Labourers

- | | | |
|-------------------------|--------|---|
| 1. Staff | 13.16% | } Details pertains to the last financial year ie. 1986-87 |
| 2. Para technical staff | 24.40% | |
| 3. Permanent labourers: | 21.24% | |
| 4. Casual labourers: | 3.5% | |

21. Salient research achievements in brief since inception of station. Give details separately for the periods

i) Upto 1956

ii) 1956 - 1972 : Superior White Leghorn germ plasm introduced and multiplied. Rhode Island Red, Australorp breeds of chicken introduced.

iii) 1972 - till date

- 1) White Leghorn F strain topped the IVth Random Sample laying test
- 2) Austra white cross identified, tested and released as suitable germ plasm for backyard rearing.
- 3) Turkeys were introduced for instruction
- 4) Quails production initiated
- 5) New hamshire breed of chicken introduced to initiate broiler breeding
- 6) Capon production techniques perfected

22. Farm revenue improvement programmes

i) Details of bulk/commercial cultivation undertaken

N A

ii) Area still available for undertaking bulk/commercial cultivation.

23. Any other relevant particulars :

1. Lack of multiplication facilities is seriously affecting the working of the station. Orders have been placed for two incubators and these are to be supplied within two months. The hatchery built for

the station is not yet ready for commissioning for want of generator connection. Unless this set up is completed in all respects and handed over to the unit, progress cannot be made.

2. The poultry houses are open to all manner of people due to lack of perimeter fencing. Restriction of such restriction have to be made available for better management.
3. Paucity of funds is affecting efficiency. Many a time it has to be compromised with substandard feed (even though pro-rata cuts are made) for want of funds for arranging quality feed from other sources. Enough and timely funds should be made available for effective action.
4. Paucity of scientific staff is a major impediment for progress. At least two Assistant Professors for effective implementation of program are required. In the present set up effective implementation of scientific management is not effective due to lack of supporting scientific staff. Head of Office is involved in teaching and guidance in academics also over and above of the administration of the unit.
5. At present, sales section is managed by para technical staff. Since the employee is full engaged in this section throughout the day, technical man power is wasted on other duty. An assistant with accountancy experience is absolutely necessary for better functioning of the sales counter.
6. Since the establishment has completely independent administrative set up paper work considerably increased consequent to the decentralisation of financial administration. Introduction of workers provident fund, new research schemes and the accounting of sale proceeds of varying nature has resulted in administrative stress. A proposal for creating of supporting administrative staff is pending with the University. Moreover no typist is provided which entails considerable additional administrative stress on the establishment.
7. The establishment do not have storage facilities. Feed and equipments are stored in duck brooder house due to necessity. Without proper store considerable difficulties are being experienced on this account. This is a major requirement for proper upkeep of materials.
8. There is no proper waiting room facilities for the labourers. Though a temporary facility is in use, a convenient and comfortable waiting room facility is a morale booster. Other stations have this facility. A proper waiting room for the labourers of this unit may be provided.

PARTICULARS OF RESEARCH STATIONS

Name of Station : University Pig Breeding Farm
 Zone in which located :
 Address with Pincode : Mannuthy - 680 651
 Phone No. :
 History of the Station :

On 12-1-1965 the Pig Breeding Farm, Mannuthy was started functioning as part of Project Pig Breeding Farm-cum-Balcan Factory. It had a foundation stock of 100 sows and 10 boars of LWY breed brought from Harsinghatta (W.Bengal). The Institution was later on transferred to the KAU on 1-2-1972 for instructional purposes.

I. FARM AND LAND PARTICULARS

1. Farm location:

a) Latitude : 10°32N
 b) Longitude : 76°16E
 c) Altitude (MSL) :
 d) Name of road/high way: 22.5 metres
 with KM stone NH 47 at 62 km
 particulars
 e) Nearest railway : Trichur
 station

2. Land particulars:

a) Total area of farm :
 i) University lands : 4 ha
 ii) Leased lands : -
 iii) Others (Specify) : -
 b) Classification of land:
 i) Wetland (ha) : -
 ii) Garden land (ha) : Yeas
 iii) Dryland (ha) : -

3. Meteorological data

a) i) Rainfall : -
 ii) No. of rainy days : -

- b) Temperature
- i) Maximum (°C) -
 - ii) Minimum (°C) -

c) Relative humidity : -

4. Soil types:

- i) Classification and area: -
- ii) Nutrient status of each class : -

5. Cultivation pattern:

- i) Total area of farm (ha) -
- ii) Total area under cultivation :
 - a) Experiments :
 - b) Bulk cultivation :
- iii) Area occupied by buildings, roads, threshing floor etc. : -
- iv) Area not utilised/vacant : -
- v) Area not suitable for cultivation : -

6. Cropping pattern:

- i) Crop grown
 - a) Perennial crops and their area : -
 - b) Annual crops and area : -
7. Out turn/yield of crops : -

8. Particulars of buildings:

i) Buildings

Pig styes

- 1. Open styes partially covered - 80 nos.
- 2. Weighing shed - One
- 3. Farrowing Houses - Two
- 4. Store building - One
- 5. Shelter house for farm labourers - One
- 6. Administrative Office building - One

ii) Farm structures : -

iii) Fencing and boundary wall

Total farm perimeter (in metres):

Fencing available (in metres)

Boundary wall all round the farm area

9. Irrigation facilities:

- i) Source of irrigation -
river/well/others :
- ii) No. of wells - Open :
wells/tube wells/others :
- iii) Pumping source with : Electric motor - HP(+)12.5
HP - Electric motor/ (2)12.5
Oil engine Oil engine - HP(1) 8.0
- iv) Area irrigatable in : NA
farm

10. Livestock particulars:

Particulars of animals	No.	Age
Pigs	450	all ages

11. Particulars of poultry :

Particulars of birds No
N A

12. Farm machineries:

Sl.No.	Name of machinery	Cost
1	Power washer HP 3.0 with Pump	- Rs.13,500/-
2	Feed Mixer and Grinder HP 5.0 HP 3.5	Rs. 7,900/-

13. Equipments

14. Budget particulars: Total for the station including all schemes

Year	Actual expenditure	Actual receipts	Profit(+) or loss(-)
1982-83	3,99,296	1,19,502	(-)2,78,794
1983-84	6,12,768	1,83,906	(-)4,28,862
1984-85	6,53,807	1,70,746	(-)4,83,061
1985-86	6,44,219	1,46,996	(-)4,97,223
1986-87	6,72,507	2,92,033	(-)3,80,474
1987-88	3,23,220	37,640	

15. Budget particulars - for bulk cultivation of crops

-

16. List of Ongoing Schemes/Projects and data of implementation:

- i) University scheme (Plan) -
- ii) Non-Plan Scheme -
- iii) ICAR Scheme -
- iv) NARP -
- v) Others -

17. Particulars of experiments conducted - Give titles discipline-wise

18. Staff particulars

i) Scientific:

Assistant Professor - 1
(On Study leave from 25-6-87 onwards)

Jr.Asst. Professor - 1
(Vacant)

ii) Para technical

Title of Scheme	Farm Manager	Farm Asst. Gr.I	Total
	1	1	2

iii) Administrative and supporting staff:

Title of Scheme	Section Officer	Assistants	Typists	Peons	Total
Administrative Assistant	1	2		1	4

19(i) Labour strength:

Class IV	Permanent	Permanent casuals	Casuals	Total
Pig Attendant -2	8 Permanent labourers working in farm			
Watchman-1	5 Permanent labourers working in other departments of Vety. College as Class IV			16

ii) Wages rates at present for different categories:

For Permanent Labourers

Basic Pay + Variable DA + Fixed DA + IR

For Casual Labourers

For men labourers - Basic wages + Variable DA

For Women labourers -

20. Percentage of expenditure over total incurred for meeting the salaries etc. of i) Staff ii) Para technical and iii) Labourers

Excess expenditure incurred only under the head cost of Seasonal labourers for the year 1985-86 (25%) and 1986-87 (10.55%)

21. Salient research achievements in brief since inception of station. Give details separately for the periods;

i) Upto 1956

ii) 1956-1972 Pigs distributed to farmers from the Farm

1965-66	- 68 nos
1966-67	- 228
1967-68	- 185
1968-69	- 463
1969-70	- 813
1970-71	-1118

iii) 1972 - till date

Pigs produced

1982-83	- 826
1983-84	- 1029
1984-85	- 857
1985-86	- 747
1986-87	- 793

22. Farm revenue improvement programme

i) Details of bulk/commercial cultivation undertaken

Crops grown, area, year of planting, hectare yield obtained, total production, expenditure and income realised - Details for 5 years may be given.

ii) Area still available for undertaking bulk/commercial cultivation -

23. Any other relevant particulars:

Only 40% of the total capacity of the farm for Pig production is being utilised. There is constant demand for pig. The pig production can be enhanced if sufficient funds are made available for the purchase of feed.

PARTICULARS OF RESEARCH STATIONS

Name of Station : Livestock Research Station,
Thiruvazhankunnu

Zone in which located : Central Zone

Address with pincode : Livestock Research Station,
Thiruvazhankunnu, Alanalloor (Via),
Palghat District
Pin - 678 606

Phone No. : 43 Alanalloor

History of the Station:

The farm was started in the post war development scheme of Animal Husbandry Development of Madras in the year 1950, with its office of Perinthalmanna. Farm was then transferred to Department of Animal Husbandry, Kerala and to Kerala Agricultural University. It was converted to Livestock Research Station with effect from 14-8-1978. AICRP on Agroforestry started with effect from 8-12-1983.

I. FARM AND LAND PARTICULARS:

1. Farm location:

- a) Latitude : Situated 15km North of Mannarghat
- b) Longitude :
- c) Attitude :
- d) Name of road/high way with KM stone particulars : 8km from Kottopadam of which lies between Mannarghat and Melatoor
- e) Nearest railway station : Melatoor

2. Land particulars:

- a) Total area of farm: 163.3 ha
(on ha)
- i) University lands : NIL
- ii) Leased lands : Nil
- iii) Others (Specify) : Nil
- b) Classification of land:
- i) Wetland (ha) : 6.85 ha
- ii) Garden land (ha) : 152.02 ha
- iii) Dryland (ha) : Nil

3. Meteorological data (As annexure)

- a) i) Rainfall (incur- : 300cm
monthwise average
of 10 years)
- ii) No. of rainy days : Details not available
- b) Temperature (Mean monthly values as annexure)
- i) Maximum (°C) : 38.8°C
- ii) Minimum (°C) : 23.5°C
- c) Relative humidity :

4. Soil types:

- i) Classification and areas: Not available
- ii) Nutrient status of :
each class

5. Cultivation pattern :

- i) Total area of farm (ha): 163.3ha
- ii) Total area under : 126.5ha
cultivation (ha)
- a) Experiments (ha) : 5.2 ha
- b) Bulk cultivation (ha): 121.3 ha
- iii) Area occupied by : 10 ha
buildings, roads,
threshing floor
etc (ha)
- iv) Area not utilised/ : 32 ha (Under forest)
vacant (ha)
- v) Area not suitable for
cultivation (ha) : Nil

6. Cropping pattern:

- i) Crop grown :
- a) Perennial crops and their area (ha):

<u>I. Fruit</u>	<u>Area under each crop</u>	<u>Area under cultivation</u>	<u>Bulk cultivation</u>
Jack trees	184 nos.	--	184 nos.
Mango trees	136 nos.	--	136 nos.
<u>II. Spices</u>			
Pepper	0.5 ha	--	0.5ha
<u>III. Beverage Crops</u>	--	--	--
<u>IV. Ornamentals</u>	--	--	--
<u>V. Plantation Crops</u>			
Coconut	19 ha	--	19 ha

800817

Arecanut	1 ha	-	1ha
Cashew	1 ha	-	
Rubber	130 nos.	-	130 nos.

b) Annual crops and :
area(ha)

I. <u>Cereals</u>	Total area	Area under cultivation	Bulk cultivation
Jowar	1 ha	-	1 ha
Maize	1 ha	-	1 ha
II. <u>Grasses</u>			
Hybrid napier	11.4 ha	-	11.24 ha
Guinea grass	1.83 ha	-	1.83 ha
Pennisetum pedicellatum	6.00 ha	-	6.00 ha
Thin Napier	10 ha	-	10 ha
Spear grass	19.36 ha	-	19.36 ha
Pasa grass	4 ha	-	4 ha
Toesinte	5 ha	-	5 ha
Gors legume	6.10 ha	-	6.10 ha
Congosignal(New planting)	6 ha	-	6 ha
III. <u>Pulses</u>	Nil	-	-
IV. <u>Oil seeds</u>	Nil	-	-

7. Out turn/yield of crops:

Crop	Area in ha	Average yield	State average	Cost of cultivation	Income/ha	Remarks
Coconut	10ha	35nuts/tree per year	--	--	22050	--
Cashew	100nos/ha	NA	--	--	3755	--
Pepper	0.5	NA	--	--	3850	--
Arecanut	1ha	NA	--	--	2890	--
Jack	184 nos.	NA	--	--	3750	--
Mango	136 nos.	NA	--	--	8003	--

Fodder Crops

Hybrid Napier	11.24	35.40 tons-	--	--	--	} Fodder crops used to feeding cattles of the farms
Guinea gars	3.83	30.35 tons-	--	--	--	
Congosingal	6 ha	2.25 ,,	--	--	--	
Para gars	4 ha	20.25 ha	--	--	--	

8. Particulars of buildings:

i) Buildings

<u>Name of buildings</u>	<u>Plinth area</u>	<u>Cost in Rs.</u>
Superintendent Quarters	NA	13,500
Veterinary Surgeons Quarters	NA	8,800
Mazdoor line -6nos	NA	7,100
Attached bathroom	NA	--
Rest House - 2 rooms -	NA	5,600
Latrine 3 nos	NA	NA
Milk cattle shed for cows	NA	38,000
Office Diary & stores	NA	28,000
Kolation shed	NA	1,500
Dispensary	NA	1,500
Managers Quarters	NA	1,500
Accountants Quarters	NA	8,800
D type quarters No.182	NA	7,400
Cattle shed	NA	8,100
Calving shed	NA	18,283
Rest room for casual labourers	NA	17,000
Duplex quarters 2 nos	--	20,000

ii) Farm structures: Nil

iii) Fencing and boundary wall

Total farm perimeter	:	8 km
Fencing available	:	1 km

9. Irrigation facilities:

i) Source of irrigation
- river/well/others : River and well

ii) No. of wells - : Open well - 1 no.
open wells/tube wells/
others

iii) Pumping source with : GEC Motor 15 HP 2900 RPM
HP - Electric motor/
oil engine

iv) Area irrigatable in farm:

10. Livestock particulars:

Particulars of animals	No	age
Milk Animals	68	Adult above 6 years
Breeding bulk	5	"
Pregnant animals	20	"
Heifers (above 2 years)	28	"
Heifers (below 2 years)	40	"
Dry cows	43	Above ten years
Calf	40	Below six months
Calf	29	Above six months

11. Particulars of poultry:

Particulars of birds :

12. Farm machineries (Costing more than Rs.5,000/- only):

<u>Sl.No.</u>	<u>Name of machinery</u>	<u>Cost</u>
1.	Hindustan 50 HP Tractor	NA
2.	M.F. Tractor 35 HP	NA
3.	Kuboto Power Triller (12 HP)	NA
4.	Kirlosker motor KW/LP { RPM - 2400 9.3/12.5 {	NA
5.	RN Engine F.B 264	NA
6.	Kirloskar -- 10 HD No.111001/62 Diesel engine	NA
7.	Kirloskar 5 HP No.50259 Engine	NA
8.	10 HP Motor	NA
9.	GEC Motor 15 HD 24000 rpm	NA
10.	Generator Portable type	NA

13. Equipments:

<u>Sl.No.</u>	<u>Name of equipment</u>	<u>Cost</u>
1	Fridge 2 nos.	NA
2	Tulaman portable platform scale	Rs.5,844.70

14. Budget particulars: Total for the station including all schemes (Rs in lakhs)

<u>Year</u>	<u>Actual expenditure</u>	<u>Actual receipts</u>	<u>Profit(+) or loss(-)</u>
1982-83	Rs.13,19,660.60	2,33,061.06	
1983-84	14,63,252.04	1,57,398.39	
1984-85	15,35,581.84	2,58,518.04	
1985-86	19,97,273.02	3,52,352.82	
1986-87	20,87,702.26	4,69,509.69	

15. Budget particulars - For bulk cultivation of crops (Rs in lakhs)

<u>Year</u>	<u>Actual expenditure</u>	<u>Actual receipts</u>	<u>Profit(+) or loss(-)</u>
1982-83	-		
1983-84	-		
1984-85	-		
1985-86	-		
1986-87	20,87,702.26	4,69,509.67	-16,18,192.50
1987-88	-		

16. List of ongoing schemes/projects and data of implementation:

- i) University Scheme (Plan) : Nil
- ii) Non-Plan Scheme : Nil
- iii) ICAR Scheme (Other than NARP) : AICRP on Agro-forestry
- iv) NARP : Nil
- v) Others (Specify) : Nil

17. Particulars of experiments conducted - Give titles discipline-wise

- 1. Diagnostic survey and appraisal of existing farming system and Agroforestry practices

Completed - Agronomy

2. Collection evaluation of promising spp/cultivars of fodder and small timber trees.

Ongoing scheme - Agronomy

3. Studies on management practices of Agroforestry system.

Ongoing scheme

18. Staff particulars:

i) Scientific

Associate Professor i/c	-	1
Jr. Assistant Professor	-	4

Title of Scheme	Assoc Director	Prof.	Assoc Prof.	Asst. Prof.	Jr. Asst. Prof.	Total
AICRP on Agro-forestry	Spl. Officer			1	4	5

ii) Para technical:

Title of Scheme	Farm Manager	Farm Asst. Gr. I	Farm Asst. Gr. II	Lab. Asst. Gr. I	Lab. Asst. Gr. II	Total
AICRP on Agro-Forestry	Nil	Nil	2	-	1	3

iii) Administrative and supporting staff:

Title of Scheme	Admn. Officer	Assistants	Typists	Peons	Total
AICRP on Agro-forestry	-	-	-	1	1

19.i) Labour strength:

Class IV	Permanent	Permanent Casuals	Casuals	xx	Total
15	70	30	29		149

ii) Wages rates at present for different categories:

1. Permanent labourers	25.65
2. Permanent casuals and Casual labourers	29.65 (M) 28.15 (F)

20. Percentage of expenditure over total incurred for meeting the salaries etc. of i) Staff ii) Para technical and iii) Labourers

1)	Salaries of Staff	1986-87	2,76,453.33	13.25%
2)	Paratechnical	,,	3,64,093.32	17.43%
3)	Labourers			
	a) Permanent		6,56,844.19	31.46%
	b) Casual labourers		3,43,432.38	17.41%

21. Salient research achievements in brief since inception of station. Give details separately for the periods:

i) Upto 1956 Nil

ii) 1956-1972 Nil

iii) 1972 - till date :

- 1) Effect of group housing and individual housing in the performance of calves have been studied. Studies revealed that the group housing has significant improvement in its growth rate, feed consumption and general well being.
- 2) In study, adult Malabari goats were reared under traditional housing system prevalent among the tribes. Consisting of platform floor and thatched roof. The goats have comparable performance with respect to growth and feed consumption with that of animals kept in conventional method.
- 3) Pellet feed and mash feed were compared in one study and pellets were found to be better than that of mash.
- 4) AICRP on Agro-forestry
 - a) Diagnostic survey and appraisal of existing farming systems and agro-forestry practices (Completed)
 - b) Collection and evaluation of promising species/cultivars of fruits, fodders and small timber trees, species (On going)
 - c) Studies on management practices of agro-forestry system (on going)

22. Farm revenue improvement programme:

i) Details of bulk/Commercial cultivation undertaken
Crop grown, area, year of planting, hectare yield obtained, total production, expenditure and income realised - Details for 5 years may be given

ii) Area still available for undertaking bulk/commercial cultivation :

An area of 50 acres can be brought under fresh coconut plantation, along with other intercrops. Vegetable cultivation can also be taken up provided there are facilities for irrigation.

PARTICULARS OF RESEARCH STATIONS

Name of Station : MANNUTHY

Zone in which located : South

Address with pincode : All India Co-ordinated Research Project on Goats for Milk, Mannuthy, Trichur- 680 651

Phone No. : 25237 PP

History of the Station : The Project started functioning as a milk component of the AICRP on Goats, with an objective of evolving milch breed(s) suitable for the Agro-climatic conditions of Kerala State by cross-breeding Malabari does with Sannen and Alpine bucks. With this objective, 123 Malabari does in the first lactation and 2 bucks were purchased locally and 6 saanen and 2 Alpine bucks were brought from NDRI, Karnal. According to the technical programme, the Malabari female purchased should have had a minimum first lactation milk yield $9\frac{1}{2}$ litre/day and Sannen and Alpine males had a dam's yield of 1000 and 900 litres per lactation, respectively.

Using the above breeds of animals, six two-breed crosses (AM, F₂A, F₃A, SM, F₂S and F₃S) and four, three-breed crosses (SAM, SSM, ASM & AAM) were generated. For contemporary comparison, pure bred Malabari was also produced in sizable numbers.

Initially the target of milk production of the cross breeds was fixed as 300 kg in 150 days of lactation. But since it was felt that the target fixed was quite unrealistic to achieve, in a later workshop the target was refixed at 200 kg in 120 days of lactation.

According to the recommendations of the VIII workshop, it was decided that only half breeds would be produced in the Unit, as there was no advantage in generating genetic groups with more oxotic inheritance. Thus, the three-breed crosses were entirely eliminated. Thus at the end of September 1987 the unit was having a flock strength of 411 consisting of 34 males and 377 females.

I. FARM AND LAND PARTICULARS:

1. Farm location:

- a) Latitude : 10°32'N
- b) Longitude : 76° 16'E
- c) Altitude(MSL) : 22.25 metres above sea level
- d) Name of road/high way with KM stone particulars : NH 47, 7km from Trichur 1 km from NH r7
- e) Nearest railway station : Trichur

2. Land particulars:

- a) Total area of farm : 6.5ha
(on ha)
- i) University lands : 6.5ha
- ii) Leased lands :
- iii) Others :
- b) Classification of land:
- i) Wetland (ha) : 5.0 ha
- ii) Garden land (ha) :
- iii) Dryland (ha) : 1.5 ha

3. Meteorological data

a) i) Rainfall

Parameter Month	Total Rainfall	Temperature		Relative humidity	
		Maximum	Minimum	Maximum	Minimum
January	1.8	33.2	19.8	90	44
February	11.4	35.6	21.3	92	35
March	3.8	37.2	22.8	93	38
April	45.0	37.6	23.7	92	46
May	155.8	35.7	23.5	94	57
June	842.3	31.4	22.6	97	73
July	738.4	30.1	22.1	97	71
August	503.9	30.4	22.7	96	73
September	231.6	31.4	22.4	95	64
October	257.2	32.3	21.8	95	56
November	147.4	32.3	21.0	91	52
December	39.6	32.3	20.6	88	44

4. Soil types:

- i) Classification and area: Sandy clayey loam
- ii) Nutrient status of each class:

Constituent	Content in soil	
Organic carbon	0.47%	Soil reaction $p^H = 5.4$
Available Nitrogen	0.058%	Electrical conductivity = 0.35
Available Phosphorous	0.003%	(mm hos m^{-1})
Available potassium	0.008%	

5. Cultivation pattern:

- i) Total area of farm(h) : 6.5 ha
 ii) Total area under cultivation(ha) :
 iii) Area occupied by buildings, roads, threshing floor etc (ha) :
 iv) Area not utilised/vacant(ha) :
 v) Area not suitable for cultivation:

6. Cropping pattern:

7. Out turn/yield of crops:

8.* Particulars of buildings:

9. Irrigation facilities : Does not arise

10. Livestock particulars :

11. Particulars of poultry:

12.* Farm machineries:

13.* Equipments:

14. Budget particulars : Total for the station including all schemes (Rs in lakhs)

Year	Actual expenditure	Actual receipts	Profit(+) or loss(-)
1982-83	7.09	0.50	6.59(-)
1983-84	8.35	0.59	7.76(-)
1984-85	8.23	0.75	7.48(-)
1985-86	9.62	0.84	8.78(-)
1986-87	6.49	1.17	5.32(-)
1987-88 (anticipated)	11.70	1.17	10.53(-)

15. Budget particulars - For bulk cultivation of crops

Nil

Annexure to Sl.nos.8*,12*,13*8.Particulars of buildings:

<u>Sl. No.</u>	<u>Buildings</u>	<u>Plinth area</u>	<u>Year of construction</u>
a)I.	Office	10x5.7	1955
	II.Office attached to main farm	6.75x3.5	1974
b)	Staff room No separate rooms for staff except the sitting place in the office and in the respective departments.		
c)	Laboratories - No separate laboratories except the facilities available in the respective departments of the college. Only an AI Laboratory of the size 3.5m ² is there attached to duck shed.		
d)I.	Store rooms	6x5m	1965
	II.Feed store attached to main farm	4.5x3m	1978
e)	Goat sheds scattered in three different places	A total shed area of 1100 Sq.mtr. is available	1963, 1965, 1973 & 1978

12.Farm machineries

<u>Sl.No.</u>	<u>Name of machinery</u>	<u>Cost</u>
1	Tempo Van	Rs. 20,000/-

13.Equipments

<u>S.No.</u>	<u>Name of equipment</u>	<u>Cost</u>
1	Spectronic 20 spectro-photometer	Rs. 13,750/-
2	Portable platform scale (Avery) with animal cage	Rs. 8,300/-

Annexure to Sl.No.10Livestock particulars

	Breedwise			Total
	Malabari	Alpain x Malabari	Saanen x Malabari	
<u>GOATS</u>				
0-3 months				
Males	1	7	-	8
Females	3	8	-	11
Total	4	15	-	19
3-12 months				
Males	-	5	5	10
Females	7	44	23	74
Total	7	49	28	84
Nullipara				
Adults(Male)	5	6	5	16
Adults in milk	10	36	11	57
Adults dry	14	159	62	235
Total	24	195	73	292

15. Budget particulars: For bulk cultivation of crops

Year	Actual expenditure	Actual receipts	Profit (+) or Loss (-)
1982-83			
1983-84			
1984-85	Does not arise		
1985-86			
1986-87			
1987-88			

16. List of ongoing Schemes/Projects and data of implementation:

Sl. No	Code No & Date of implementation	Title of the Project	Names & Investigators
1	VA-3-1-4-10 (28-6-79)	The inheritance of certain qualitative traits in goats (eg. fassels, horns, colour etc)	Dr. B Nabdakumaran
2	VA-7-1-16-6 (28-6-79)	Anaesthesia in goats	1. Dr S Raveendran 2. Dr C Abraham-Varkey
3	VA-3-1-13-1 (28-6-79)	Comparative haematological studies on the Malabari, exotic and cross bred goats of different age groups	Dr (Mrs) PT Philomina
4	VA-3-1-13-3 (28-6-79)	Certain aspects of reproduction in Malabari and cross bred goats	1. Dr G Nirmalan 2. Dr. K Prabhakaran Nair 3. Dr E Mathai
5	VA-3-1-13-3	Structural and functional development of testis and epididymis in goats	Dr Prabhakaran Nair. K
6	VA-3-1-13-3	Development and function of the ovary and the uterus in goat	Dr E Mathai
7	VA-7-1-11-6 (17-9-79)	Studies on wobbles in goats	1. Dr NM Aleyas 2. Dr MP Thomas
8	VA-7-1-11-22 (21-4-80)	Pathology of the reproductive organs in experimental Hypothyroidism in goats	Dr Nemali Mohan Reddy
9	VA-3-1-9-33 (6-4-81)	Study on kid starteys	1. Dr N Kunjukutty 2. Dr Annamma Kurian 3. Dr TV Viswanathan
10	VA-3-1-4-15 6-4-81	Growth rate of Malabari goats and their exotic crosses under extensive system of management	1. Dr G Mukundan 2. Dr BRK Nair 3. Dr KV Reghunandan
11	VA-6-1-3-40 (12-11-82)	Role of olfactory signals in the reproductive behaviour/Physiology of goat and swine	1. Dr CKSV Raj 2. Dr K Prabhakaran-Nair 3. Dr KM Alexander
12	VA-6-1-3-43 (12-11-81)	Design and fabrication of an insemination crate for AI in Goats	1. Dr CKS Raja 2. Dr Joseph Mathew
13	VA-7-1-8-15 (17-3-82)	Cellular and humoral immuneresponses to corynebacterium Pseudo ta tuberculosis infection in goats	1. Dr V Jayaprakasan 2. Dr Sulochana

1	2	3	4
14	VA-6-1-3-44 (17-3-82)	Effect of frequency of ejaculation on semen characteristics and libids in cross bred bucks	1.Dr Metilda Joseph 2.Dr K Prabhakaran
15	VA-6-1-3-45 (17-3-82)	Preliminary trials on freezing of buck semen	1.Dr Aswinkumar Nair Srmah 2.Dr CKSV Raju
16	VA-7-1-16-10 (17-3-82)	Lobectomy in goats	1.Dr John Joseph 2.Dr PO George
17	VA-MNY-G-BG (ICAR) 25-7-83	Genetic studies on Polymorphism of some blood proteins in goats	1.Dr G Mukundan 2.Dr AK Shamsudin
18	VA-MNY-G-BG (18-7-84)	Blood groups and biochemical Polymorphism in Malabari goats and their exotic crosses	1.Dr B Nandakumaran 2.Dr G Mukundan
19	VA-MNY-G-AR (18-7-84)	Investigation on certain aspects of Coccidiosis of goats	1.Dr Lucy Jacob 2.Dr K Madhavan Pillai
20	VA-MNY-G-PT (18-7-84)	Immunopathological response in pneumonia in kids	1.Dr TV Arilkumar 2.Dr A Rajan
21	VA-MNY-G-SG (18-7-84)	Regional anaesthesia of the hind limb in goats using Lignocaina hydrochloride	1.Dr Phehlad Sarker 2.Dr S Ramesan Nair
22	VA-MNY-G-SG	Influence of Glycerol gnacol for anasthesia in goats	1.Dr Balagopalan.TP 2.Dr KN Mohan
23	VA-MNY-G-MB 15 (18-7-84)	Bacteriological quality of Goat milk	1.Dr Kavesic Chaklesame 2.Dr MV Sukumaran
24	VA-MNY-G-MB (18-7-84)	Comparative evaluation of different genetic groups of goats for growth, reproduction and production performances	1.Dr BR Krishnan Nair 2.Dr KC Raghavan 3.Dr G Mukundan 4.Smt.TK Indira Bai
25	VA-MNY-G-PT (26-7-85)	Prevalance and Pathology of Chlamaclosis in goats	
26	VA-MNY-G-CM- 18	Evaluation of liver function in ruminal Aciosis in goats	1.Dr Usha Narayana Pillai 2.Dr KM Alikutty

17. Particulars of experiments conducted - Give titles discipline-wise

18. Staff particulars:

i) Scientific

Title of Scheme	Assoc Dire.	Prof.	Assoc. Prof.	Asst. Prof.	Un. Asst. Prof.	Total
All India Co-ordinated Research Project on Goats	-	-	1	2	1	4

ii) Para technical

Title of Scheme	Farm Manager	Farm Asst. Gr.I	Farm Asst. Gr.II	Lab. Asst. Gr.I	Lab. Asst. Gr.II	Total
AICRP on Goats	-	2	1	-	-	3

iii) Administrative and supporting staff:

Title of Scheme	Admn. Officer	Accounts Officer	Sect. Officer	Asst.	Ty- pist	Peon	Dri- ver	Tot- al
AICRP on Goats	-	-	-	3	-	1	1	5

19.i) Labour strength:

Class IV	Permanent	Permanent Casuals	Casuals	Total
2	18	2		22

ii) Wages rates at present for different categories:

<u>Category</u>	<u>Wages</u>
Class IV	Rs.550-800
Permanent labourers	175-275
Permanent { Men	Rs.29.85/day
Casuals { Women	Rs.28.35/day

20. Percentage of expenditure over total incurred for meeting the salaries etc. of i) Staff ii) Para technical and iii) Labourers

Category	Percentage of expenditure over total incurred for meeting the salaries
i) Staff	29.28%
ii) Para technical	31.95%
iii) Labourers	38.77%

21. Salient research achievements in brief since inception of station. Give details separately for the periods;

i) 1972 till date

The body weights of the kids reared from birth to one year of age, indicated that the cross breeds were superior to Malabari in growth in singles as well as in twins and triplets. In milk production, the cross breeds were superior than the native Malabari. Saanen x Malabari had the highest average milk yield of 174.12 ± 18.42 kg in a lactation period of 190 days. The least square means for the first three lactations of different breeds are given below.

Genetic group	Order of lactation		
	1st	2nd	3rd
Saanen - Malabari	110.42 ± 5.10	107.39 ± 8.85	108.10 ± 0.11
Alpine - Malabari	74.81 ± 4.76	89.61 ± 6.67	92.09 ± 0.11
Malabari	51.36 ± 6.11	68.61 ± 8.75	57.94 ± 0.15

The kidding efficiency in the flock was 61% on the basis of does available in 1985. The multiple birth was 44.2%. Reproductive traits, particularly age at first kidding was reduced by 31.2 days in Saanen crosses and 117.2 days in Alpine crosses, whereas kidding interval was increased

by 87.3 days and 35.5 days respectively in the cross breeds over Malabari. The reproductive efficiency measured in terms of rate of conception was highest (73.3%) in the does with normal oestrus cycle in kid mortality was found to be 7.59%.

22. Farm revenue improvement programme

- i) Details of bulk/commercial cultivation undertaken - crops grown, area, year of planting, hectare yield obtained, total production, expenditure and income realised - Details for 5 years may be given.

Does not arise

- ii) Area still available for undertaking bulk/commercial cultivation -

Does not arise

23. Any other relevant particulars:

Though the project had received some saanen and Alpine bucks from the nucleus stock NDRI Karnal and these bucks could be used for the first five years of the project, no pure bred exotic bucks were available for the last one decade of research. This has caused much deterioration and inbreeding in the cross bred population. This is more true with regard to the Saanen gene pool. Now the project has nearly succeeded in getting deep frozen semen from Switzerland. The semen will be from highly pedigreed champion bucks of saanen and Alpine breeds. So also, to widen the genetic base, selected Malabari females of high fecundity will be procured locally. Both these aspects will be threshed out in the XI workshop and strategies will be evolved.

With the amount provided for civil works in the budget and a matching grant from the University, the shed of 10,000 sq. feet area constructed in the inception of the project will be modified according to the humid conditions of Kerala. This will facilitate easy and cleaner management of goats.

Because of acute scarcity of qualified veterinarians to man the posts in the project, two posts are laying vacant for more than one year. The non-availability of Veterinarians may have to be tackled by making University posts more remunerative or by recruiting persons from other states.

800817



PARTICULARS OF RESEARCH STATIONS

Name of Station : Cattle Breeding Farm,
Thumburmuzhi

Zone in which located : Central Zone

Address with pincode : Cattle Breeding Farm, Thumburmuzhi

Phone No. :

History of the Station:

800817

- REPORT NOT RECEIVED -