SYLLABUS

CONTENTS OF THE COURSE

AGRICULTURE

1. Veterinary Compounder
2. Sericulture Assistant
3. Farm Assistant
4. Fisheries Assistant

1. VETERINARY COMPOUNDER

1. INTRODUCTION

The Directorate of Intermediate Education has decided to introduce short term course in "Veterinary Compounder" for one year duration training to S.S.C. failed / Passed students / candidates who are interested in acquiring skills, as livestock production like milk, egg, meat, wool etc are subsidiary income to Agriculture in rural areas. So to achieve the above goal a candidate is received a scientific training in different skills like Management, Nutrition veterinary first Aid, Frozen Semen.

2. OBJECTIVES

1. To import practical training scientific management methods.
2. To impart practical training in fodder production.
3. To know about formulation of rations
4. To make them technically qualified in veterinary first Aid
5. To make them to do vaccinations in all types of Animals.
6. To perform castration techniques.
7. To know about Frozen Semen Technology.

3. SKILLS TO BE PROVIDED

1. Scientific rearing methods in all livestock.
2. Improved fodder production techniques.
3. Preservation of fodders.
4. Preparation of rations.
5. Veterinary first Aid
6. Vaccination in all livestock
7. Castration
8. Performing Artificial insemination.
9. Improvement of low quality feeds
10. Collection dispatching of materials to laboratory for Examination.

4. EMPLOYMENT OPPORTUNITIES

A. WAGE EMPLOYMENT:

1. Farm Supervisor
2. Fodder Production Assistant
3. Veterinary Vaccinator

4. Veterinary Inseminator
5. Veterinary Extension Worker
6. Veterinary Compounder (1 year)

B. SELF EMPLOYMENT:

1. Fodder producer
2. Feed distributor
3. Artificial inseminator
4. Veterinary
   A) First aid Practitioner
   B) Veterinary vaccinator
   C) Deworming of animals
5. Farm owner.

Schemes Of Instruction Per Module

Module	Theory		On Job Training		Total	
	Hours	Weightage	Hours	Weightage	Hours	Weightage
I	72	30	216	70	288	100
Total	72	30	216	70	288	100

Schemes Of Instruction Per Week

Module	Theory	On the Job Training	Total
Modules I/II/III	6 Hours	18 Hours	24 Hours

6. SYLLABUS

Module – I

Theory **Time: 72 Hours**

Animal Management and Nutrition

Sl.No.	Name of the Chapter	No. of period
1.	General Study of body parts of different live stock	10
2.	Breeds and their identification	08
3.	Management of live stock	26
4.	Animal Nutrition	14
5.	Feed and fodder production	14
		72

1. General Study of body parts of different live stock

1.1 Common terms used in live stock

1.2 Live span of different animals

1.3 External body parts of the live stock and poultry

1.4 Internal body parts of the live stock and poultry

2. Breeds and their identification

2.1 Indigenous breeds of cattle and buffaloes

2.2 Exotic breeds of white cattle

2.3 Breeds of sheep and goat

2.4 Breeds of poultry and swine

3. Management of live stock

3.1 Restraining methods (handling) of animals

3.2 Ageing of animals and methods of identification of animals

3.3 Advice of management of dairy animals

3.4 Advice on calf management

3.5 Deworming schedule of live stock and poultry

3.6 Advice on management of sheep and goat

3.7 Advice on management of poultry

3.8 Advice on management of Piggery

4. Animal Nutrition

4.1 Common feed ingredient used in live stock feeding

4.2 Utilization of agro – industrial by products

4.3 Requirement of feed and fodder to the different classes of animals

4.4 Techniques to improve low quality fodder crops.

5. Feed and Fodder Production

5.1 Cultivation practices of different fodder crops

5.1.1 Fodder crops

5.1.2 Plaster development

5.1.3 Fodder tree development

5.2 Advice on fodder conservation methods

5.2.1 Hay making

5.2.2 Silage making

5.3 Chaffing of fodders

MODULE – I
ON THE JOB TRAINING **Time: 216 Hrs**

ANIMAL MANAGEMENT AND NUTRITION

1. Sketch diagrams of external body of different animals
2. Sketch diagrams of internal body parts of different animals
3. Restraining of different breeds
4. Restring methods of animals
5. Determination of age
6. Models of animal houses
7. Feeding of colostrums to the calf
8. Weaning practices
9. Identification methods
10. De-worming schedule and practices
11. De-horning
12. Clean milk production
13. Cleaning and sanitization of sheds
14. Management of animals until maturity
15. Identification of feed ingredients
16. Preparation of feeding schedules
17. Layout of fodder plots
18. Preparation of cropping programme
19. Process of hay making
20. Process of silage making
21. Chaff cutting practices
22. Urea treatment of straws
23. Visit to live stock forms
24. Visit to feed plant
25. Visit to fodder seed production
26. Record keeping

MODULE – II

Theory **Time: 72Hrs.**

PREVENTIVE HEALTH CARE AND VETERINARY FIRST AID

Sl.No.	Name of the Chapter	No. of periods

1.	Different types of Vaccines	10
2.	Awareness on Vaccines to the farmers	04
3.	Preservation of Vaccines	06
4.	Method of doing Vaccination	08
5.	Examine Animals	06
6.	Compound and dispense medicines	10
7.	Perform first aid	22
8.	Follow-up till cured	06
		72

1. Different types of Vaccines

1.1 The type of vaccines available in A.P. for dairy animals

1.2 Vaccination schedule in different classes of animals

1.3 Dosage of vaccine, routs of administration and period of immunity

2. Awareness on vaccination to the farmers

2.1 Methods for publicity on vaccination

2.2 Advise farmers on vaccination

3. Preservation of vaccine

3.1 Methods for preserving vaccine while transportation

3.2 Perform instrument sterilization

3.3 Methods for preserving of vaccine while vaccination at camps

3.4 Disposal of utilize and empty vaccine

4. Method of doing vaccination

4.1 Method of reconstitution of the vaccine

4.2 Procedure of vaccination in different animals

4.3 Post-vaccination complications and how to overcome the complications

4.4 Record keeping of vaccination register

5. Examine animals

5.1 Recording the history of the animals

5.2 Signs of health and ill-health

5.3 Normal values of body temperature, pulse, respiration and their recording

6. Compound and dispense medicines

6.1 Formulation of medicine

6.2 Route and dosage of the medicine

7. Perform first-aid

7.1 Different types of bacterial, viral, parasitic and protozoal diseases

7.2 Identification of Veterinary First Aid of the above diseases

7.3 Type of abscesses

7.4 Type of wounds and wound dressing

7.5 Type of fractures

7.6 Collection and dispatching of materials to the laboratory for examination

8. Follow-up till cured

8.1 Importance of follow-up

8.2 Handle and care to sick animals

8.3 Need and methods for isolation of sick animals.

Module – II

On-the-Job Training **216 Hrs.**

PREVENTIVE HEALTH CARE AND VETERINARY FIRST AID

1. Recording of history of the animals
2. Identification of outbreaks
3. Preparation of epizootological
4. Preparation of posters and charts
5. Advice farmers on vaccination
6. Identify vaccines available in A.P.
7. Vaccination schedules in different animals
8. Practicing different types of vaccines administration
9. Sterilization of equipments
10. Practice of preservation of vaccine at transport and camp
11. Method of reconstitution of vaccine
12. Care of post vaccine
13. Record keeping of vaccination register
14. Preparation of different types of mixtures, powders and their dosage
15. Practicing drenching
16. Practicing of injections (I/M, I/V, subcutaneous)
17. Contains of first aid box
18. Dressing of wound and surgical bandages
19. Different types of fractures and their corrections
20. Observation of symptoms of bacteria, viral, parasitic and protozoal diseases
21. Observation of symptoms of Systemic diseases like, bloat, entireties, Pneumonia etc.
22. Drugs used in veterinary first aid their dose and routs of administration
23. Isolation of sick animals.
24. Dispatch of material to laboratory for examination
25. Visit to vaccine production unit.

Module – III

FROZEN SEMEN TECHNOLOGY

Theory **72 hours**

Sl.No.	Name of the Chapter	No. of periods
1.	Reproductive organs of cow and bull	12
2.	Symptoms of heat	12
3.	Castration of dairy animals	12
4.	Artificial insemination	36
		72

1. Reproductive organs of cow and bull

1.1 Sketch diagram of female reproductive system

1.2 Sketch diagram of male reproductive system

2. Symptoms of heat

2.1 Symptoms of heat in cow

2.2 Symptoms of heat in buffaloes

2.3 Hormones, vitamins and minerals responsible for heat

2.4 Oestrus cycle

3. Castration of dairy animals

3.1 Advice formers on castration of bulls.

3.2 Casting of animals

3.3 Sterilization of castrater

3.4 Performing castration

3.5 Care to be taken on post castration

4. Artificial Insemination

4.1 A.I. advantages & disadvantages

4.2 Cleaning and sterilization of A.I. equipment

4.3 Advantages of cross breeding

4.4 Different equipments required in A.I.

4.5 Upkeeping of liquid nitrogen container

4.6 Collecting history of the animal owner

4.7 Examine animals for heat symptoms

4.8 Loading of A.I. gun

4.9 Procedure of conducting A.I.

4.10 Advice formers on post A.I. care and follow up

4.11 Record keeping.

MODULES – III

FROZEN SEMEN TECHNOLOGY

ON THE JOB TRAINING **216 Hours**

1. Sketch diagrams of reproductive system of cow and buffaloes
2. Observation of heat symptom
3. Palpation of reproductive organ
4. Sterilization of castrator
5. Methods of casting animals
6. Procedure of castration
7. Dressing of castration wound
8. Sketch diagram of L.N. container
9. Care and handling of L.N. container
10. Procedure to take out the semen straw from L.N. container
11. Thawing of semen straw
12. Observation of external and internal signs of pregnancy
13. Practicing of A.I. gun into cervix
14. Advice formers on post A.I. care
15. Follow up after A.I.
16. Maintenance of A.I. related registers
17. Visit to semen bank
18. Visit to slaughterhouse.

6. LIST OF TOOLS & EQUIPMENT

Sl.No.	Name of the Tools & Equipment	Qty. Required
1.	Model body parts (External) of different animals	1No.
2.	Model body parts (Internal) of different animals	1No.
3.	Model of Reproductive organs of animals	1No.
4.	Model of Different breach of animals	1No.
5.	Tattooing set	1No.
6.	Branding set	1No.
7.	Ear tagging punch	1No.
8.	Ear tags	100No.
9.	Burdizzo's castrator (large)	1No.
10.	Burdizzo's castrator (small)	1No.
11.	Bull nose ring	1No.
12.	Bull rope	1No.
13.	Casting rope	1No.
14.	First Aid Box	1No.
15.	Trocar and canula	1No.

16.	Electric Dehorner	1No.
17.	Forceps	2Nos.
18.	Scissors	2Nos.
19.	Mouth gag	1No.
20.	Cattle trevis	1No.
21.	Artificial insemination equipment	1Set
22.	Refrigerator	1No.
23.	Thermos Flask	4Nos.
24.	Sterilizer	1No.
25.	Glass Jars 500ml	12Nos.
26.	Glass Jars 1000ml	12Nos.
27.	Glass Jars 1500ml	12Nos.
28.	Students micro scope	1No.
29.	Weighing balance	1No.
30.	Pest & Mortar	1No.
31.	Feed sample bottles (plastic)	48Nos.
32.	Plastic aprons	10Nos.
33.	Gloves	100Nos.
34.	Gum boots	2Nos.
35.	Vaccination kit	1No.
36.	Syringes glass 2ml, 5ml, 10ml, 20ml	1 Dozen
37.	Syringes metal 2ml, 5ml, 10ml, 20ml	½ Dozen
38.	Needles 15G, 18G, 20G	2 Dozens
39.	Suture needles	1 dozen
40.	Thermometers	6Nos.
41.	Slides and cover slips	100 Nos.
42.	Chaff cutter	1No.
43.	Feeding cup	6Nos.
44.	Probang	1No.
45.	Bucket & mugs	6 Nos.

RAW MATERIALS REQUIRED

S.No.	Description	Qty. Required
1.	Washing Soda	1000gms
2.	Castic Soda	500gms
3.	Liquid soap	3Ltrs.
4.	Bleaching powder	25Kg
5.	Urea	50Kg
6.	Straus (Paddy or Jowar)	200kg
7.	Tattooing ink	200ml
8.	Phenol	2Ltrs.
9.	Teapol	2Ltrs.
10.	Petroleum jelly	1Kg
11.	Formaldehyde	1Ltr.
12.	Boric acid	2kg
13.	Copper suliphate	500gms
14.	Sodium Chloride	500gms
15.	Ginger	2Kg
16.	Gention	2Kg
17.	Chirreta	2Kg
18.	Ereata	2Kg
19.	Kaobin	2 Kg
20.	Keltachu	2kg
21.	Nuxomica	2kg
22.	Iodine	2Kg
23.	Poltassium iodie	500gms
24.	Zick oxide	500gms
25.	Acetic Acid	500gms
26.	Ammonium Sulphate	500gms
27.	Liquid Ammonia	500ml
28.	Chloroform	500ml
29.	Sodium Hydroxide	500gms
30.	Benjoic Acid	500gms
31.	Salclic Acid	500gms
32.	Sodium Corbonate	500gms
33.	Sodium Sulphate	500gms
34.	Pottasium Ditromate	500gms
35.	Tri Sodium Citrate	500gm
36.	H.S. Vaccine	1 Bottle
37.	B.Q. Vaccine	1 Bottle
38.	E.T. Vaccine	1 Bottle
39.	FMD Vaccine	1 Bottle
40.	R.D Vaccine	1 Bottle

8. QUALIFICATIONS OF TEACHING FACULTY:

1. B.V.Sc
2. B.Sc., (Dairy Technology)
3. B.Tech (Dairying)

9. REFERENCE BOOKS

1. Text Boom of Animal Husbandry by G.C. Banerjee, Oxford I.B.H. Publication
2. Farm animal management and poultry production. Sastry NSR Thomas C.K. And Singh R.A. Vikas, Publication
3. Characteristic of cattle and buffalo breeds of India I.C.A.R. New Delhi (1979)
4. Hand book of animal husbandry. ICAR, New Delhi 1978
5. Dairy farming and milk production C.P.Anathkrishna & P.N. Padmanabhan Shri LakshmiPublicaion 42, Harelys Road, Kalipank, Madras.
6. Forage crops of India. T.R. Narayan and PM. Dabadhao
7. Outlines of Dairy Technology S.De
8. Reproduction in farm animals E.S.E. Hafez, 5th Edition, K.M.Varghese, Company
9. Animal Nutrition and feeding practices, Ranjan S.K.
10. Artificial insemination of farm animals, Perry, J.Ed
11. Veterinary medicine, D.C. Blood and J.A.Henderson, 4th Ed.
12. Management and feeding of buffaloes. Ranjhan, S.K.and pathak N.K.
13. A text book of extension education, Ranjit Singh
14. Forage production conservation and recycling of farm wastes, inst-cum-Prac Manual, NCERT
15. Livestock and poultry production, Singh Harbans and Moore EN

10. LIST OF PARTICIPANTS:

Dr. P. Sundar Reddy, M V Sc. Assistant Director (A.H) B.Sc (Dairy Technology) On deputation J.L in dairying Government City Junior College Hyderabad	Sri K. Vishweshawar J.L. in Daring Government, Govt., Jr. College, Kachiguda, Hyderabad