

16.11.2020

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GOVERNMENT OF KERALA
Abstract

Animal Husbandry Department – Establishment- Syllabus for the Livestock Inspector training course - revised- Orders issued.

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AGRICULTURE (AHE) DEPARTMENT

G.O(Ms)No.22/2020/AHD

Dated, Thiruvananthapuram, 09.10.2020.

- Read :-
1. G.O(Ms)No.34/95/AD dated 13.02.95.
 2. G.O(Rt)No.373/2002/AD dated 02.04.2002.
 3. Recommendations of the syllabus modification committee dated 30.07.2018.

ORDER

In the Government Order read as 1st paper above, Government have approved the revised proposal and syllabus for Livestock Inspector Training Course conducted by the Animal Husbandry Department as it is observed that the syllabus is not sufficient to satisfy the field requirement. A committee was constituted to recommend suggestions for modifying the syllabus of Livestock Inspector Training Course.

The committee has submitted their recommendations read as 2nd paper above. Government have examined the recommendations in detail and are pleased to approve the revised syllabus (appended).

The Livestock Inspector Training Course will be conducted only where there are candidates advised by the Public Service Commission.

(By order of the Governor)

SREEKUMAR.P.P

Under Secretary to Government

Copy to:-

- ✓ The Director of Animal Husbandry, Thiruvananthapuram.
- Principal Training Officer, LMTC, Kudappanakunnu, Thiruvananthapuram
- Stock File/Office Copy.

Forwarded/By order

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Section Officer

Livestock Management Training Centre, Kudappanakunnu
Livestock Inspector Training- Revised Syllabus

- Reference:-**
1. G.O(MS) 34/95/AD dated 13.02.1995
 2. G.O(RT) No. 273/2002/AD dated 02.04.2002
 3. Letter No. AHD/7385/2017-B4 dated 21.12.2017

16 years elapsed since the revision of syllabus vide ref (2) and so much development has occurred in Animal Husbandry sector and Office Administration. Hence, the revision of syllabus is unavoidable. In this regard, the Director of Animal Husbandry has constituted a committee for revision of syllabus vide ref (3) above. The Committee Meeting held on 30.07.2018 discussed the matter in detail and approved the revised syllabus. The syllabus contain Four Parts (Part I- Anatomy, Physiology and Pharmacy. Part II- Animal Husbandry and Poultry Husbandry. Part III- Artificial Insemination and Breeding, Part IV- Disease. Disease Control and First Aid.).

Type of course:- For Livestock Inspectors recruited through PSC

1. 6 months training for VHSE holders.
2. 1 ½ months for VHSE holders with AH training who have completed 6 months training from AHID Department
3. 11 months training for Livestock Inspectors promoted from lower posts of AHD.

Objective:-

To revise the syllabus as to the need of the hour

To build up awareness on computers, on line reporting systems etc.

Equip to assist and help the Veterinary Officers in technical as well as administrative works.

Modification of present examination and evaluation

Unification of syllabus for six months. 11 months and One & half months.

Increase the duration of 1 ½ months training to Three months training.

The details of the syllabus approved is given below

Part-I

Elementary Anatomy

Theory: Parts of body, position of organs, long bones, joints, region etc.. position of organs giving emphasis on digestive, reproductive system etc. *Site and position of organs related to respiratory, circulatory, urinary system in live animals (topographic anatomy of important organs) to be mentioned. Area for injections for all species, site for tagging, nose punching etc.*

Practical: Identification of large bones, joints, anatomical regions. *Identification of visceral organs (Cattle)*

Elementary Physiology

Theory: Normal physiological values- pulse, temperature, respiration, rumen motility. Digestive system — rumination, rumen motility, digestion in rumen and simple stomach. *digestion in poultry. Physiology of other system except reproductive system*

Practical: Reading of pulse, respiration, rumen motility, heart beat etc. Setting up of microscope for examination, preparation of slides, dung samples etc.

Pharmacy

Theory: Definition of common terms (Carminative, stomachic etc). weights and measures metric system, common household measures, common galenic preparations used in practice. Prescription — its parts and abbreviations, labeling, packing and forwarding. *Storage of medicines, importance of shelf life period of medicines, Instruments and equipments used in pharmacy. maintenance of cold chain.*

Practical: Preparation of solutions of various strengths- stock solutions. antiseptics. other stock solutions. preparation of ointments, mixtures, powders, liniments. boluses etc. Instruments and equipments used in pharmacy.

Part II

Animal Husbandry

Theory: Animal Management. General principles of hygiene, sanitation, housing of cattle. collection of dung and urine for gobar gas plant, definition of common terms relating to cattle. dentition and ageing of cattle. methods of identification of cattle — tagging, branding, tattooing, notching etc.. grooming, exercise, dipping. Feeds & Feeding- Nutrients in feed-common feeds - concentrates and roughages- importance of balanced feed. general principles of rationing of cattle (different age groups) — maintenance, work, production, deficiency diseases. Thumb rules on feeding — total mixed ration, use of non conventional feed, feeding tips. Labour management Common breeds of cattle — Indigenous & Exotic. General-Care and management of young stock, breeding stock, milch and pregnant animals, clean milk production, handling processing and marketing of milk, milk as a diet. Hoof management, sanitation & Hygiene of cattle shed. Control of mastitis, milking machine its parts and functioning. Hi-tech farming. Bio-fertilizer production. Restraining of animals-its methods-head, neck fore and hind limbs, precautions to be adopted in casting of animals, handling of animal lifting devices.

Fodder production, common varieties of fodder- roughages- importance of fodder. Cultivation and preservation of green fodder, hay making, silage making, treating of roughage for improving quality. Azolla cultivation, Hydroponics. Toxic plants and feeds-in brief, Goat Husbandry - Definition of common terms- breeds of goats, general principles of hygiene, sanitation and housing including cage system, breeding and management. Feeds & feeding, deworming and vaccination schedules, goats for meat & milk and its Importance.

Swine Husbandry — definition of common terms — breeds, general principles of hygiene, sanitation and housing, breeding and management, weaning of piglets, feeds & feeding, deworming and vaccination schedules, care and management for commercial pig production, -pork and pork byproducts.

Rabbit husbandry — in general.

Ongoing AHD programmes. Introduction to livestock & poultry statistics. Current production of milk, meat & egg- common terms related to Animal Husbandry - Cattle, Buffalo, goat, pig.

Practical: Body score of cattle, identification -tagging, casting and restraining of animals, lifting of fore limbs, examination of mouth, drenching. Collection, packing & despatch of feed samples, fodder identification, cultivation of fodder, demonstration plot.

Poultry Management

Theory: Importance of poultry rearing-general terms- different classes of poultry, Identification of breeds. Body parts of fowl.

Layer production - common breeds. Systems of poultry keeping — housing and management under each system. Feeds and feeding — chicks. growers. layers. Brooding and rearing of chicks- sexing chicks- rearing of grower stock. Layer house management for commercial egg production and for production of hatching eggs - trap nesting. Culling. Egg formation. Collection, handling, storage, transportation and marketing of eggs. nutritive value of eggs. Incubation of eggs- collection and grading of hatching eggs. holding and storage. Management of incubators. Deworming, vaccination, debeaking and dubbing, poultry farm sanitation -disinfectants. Poultry manure. Common deficiency diseases, protocols to be adopted to combat biological threats in farms. Litter management, stress management. water hygiene. New hybrid varieties in layers.

Broiler production — common broiler breeds and strains. Housing. management for commercial meat production. processing and marketing of broiler chicken.

Duck rearing — exotic and indigenous breeds, systems of duck rearing, breeding. deworming, vaccination, incubation of duck eggs. management of ducklings and adults. Feeds and feeding methods. Eggs- table hatching — handling and marketing, ducks for meat.

Turkey rearing and Quail rearing— breeds. care and management, incubation. Housing & feeding - in general.

General — Licensing of farms and pollution control.

Practical: Different types of dressing, debeaking, hatchery management (at farm level training- candling of eggs. brooder setting)

Part III

Breeding

Theory: System of breeding. Male and female reproductive system- anatomy and physiology in detail and endocrinology in brief. Puberty-age of maturity-estrus cycle, age at first calving-calving interval- gestation-pregnancy diagnosis (Rectal Method) - parturition, gestation periods of different animals. first heat after parturition. Brief notes on dystocia. retention of placenta. repeat breeder. infertility, sterility, abortion, castration.

Practical: pregnancy diagnosis

Artificial Insemination

Theory: AI- definition -advantages and disadvantages. equipments required for AI. Methods of collection of semen. evaluation of semen. Frozen semen. Preservation of semen-different methods. packing and shipping of semen, AI technique with special reference to thawing of frozen semen, loading of AI gun and site of deposition of semen, cleaning and sterilization of AI equipments, detection of heat, appropriate time of insemination. time of ovulation.

Maintenance of records and registers in AI centre - AI Register. Semen Account Register, Calf Birth Register, Birth Recording Register, Filled Visit Register, Pregnancy Diagnosis Register, Check Register, Herd Book Register. Other Stock Registers. Milk Recording. Types of cryocans, its maintenance, types of semen straws. Goat AI, sex: linked semen. embryo transfer technology, selection of bulls- progeny testing, animal behaviour during estrus -cattle. pig. goat. Brief note on breeding policy.

Practical: Handling of AI equipments. Practicing AI. Identification of different parts of uterus.

assessment of five weight using formula. Cleaning, handling and sterilization of AI equipments. On job watch of semen collection and preparation of frozen semen.

Part IV

Disease control

Theory: Signs of health. Contagious and infectious diseases- General methods of dealing with outbreaks and control, Common bacterial diseases such as Anthrax, B.Q, H.S, Tetanus.T.B Johne's disease. Brucellosis, Naval ill, Joint ill. Mastitis, Swine Erysipelas. Common bacterial diseases in poultry like salmonellosis. Fowl Typhoid and Fowl Cholera etc (in general). Common viral diseases affecting livestock and poultry such as Rabies. R.P. FMD. Pox. RAD. Marek's. Ephemeral Fever etc. Common parasites of livestock and poultry (Round worms. Hook worms. tape worm. fluke, endoparasites including blood parasites). Common ectoparasites of livestock and poultry. Collection and despatch of materials for laboratory examinations. Goat diseases — PPR. Enterotoxaemia etc. Duck diseases — Duck Plague. Duck Pasteurella. etc. Swine Fever, Common zoonoc diseases (Avian influenza.T.B. Brucellosis. Rabies. Anthrax. Cow, pox etc), Sero surveillance, ADCP. SADEC, NADRS. Metabolic diseases. Deworming and vaccination schedules. Immunization-commonly used vaccines. Vaccination schedule in livestock & poultry,

Practical; Vaccination, collection of material for lab examination in general. Handling & sterilization of equipments like microscope. autoclave. hot air oven. surgical equipments etc.

First aid

Theory: Common terms. sterilization of instruments. preparation of the site for surgery. common antiseptics and disinfectants, wound dressing. bandaging. first aid in common ailments like Bloat. dysentery. diarrhoea. indigestion. impaction etc. General information regarding "inflammation. identification of fracture etc. Disaster Management strategies.

Practical: Different types of dressing & bandaging. Identification of surgical instruments. | preparation of surgical site, tests for urine & milk.

The Committee also recommended the following changes.

- All the Three types of training (6. 11 & 1 ½ months) have the same syllabus.
- Duration of 1 ½ months training may be extended to three months since they have completed the six months AHD training long before say more than 10° years and thereafter so many developments occurred in this field. AHD has discontinued this training 10 years back.
- Since the Livestock Inspectors promoted from lower cadre posts have no VHSE background. It is necessary to have separate session on VHSE portion for these trainees. So they need more sessions. hence the training is for 11 months.
- All the Four papers should have separate examination for 100 marks. It should contain theory- 50) marks. Practical-20 marks, Viva-25 marks and Assignment-5 marks. For pass in the examination minimum 40% of mark is necessary for each component and aggregate of 50%. During the training there will be continuous evaluation of the trainees and they should keep records of practical works done. For conducting the exam Principal Training Officer will appoint an external examiner (Deputy Director cadre) and a supervisor (In the cadre of Assistant Director/Veterinary Surgeon 10 years of service). Dy. Director/Assistant Director of the Institutions will be internal examiner.

Marks for examination						
Paper	Theory	Practical	Spotters	Records & Assignments	Viva	Total
I	50	10	10	5	25	100
II	50	10	10	5	25	100
III	50	10	10	5	25	100
IV	50	10	10	5	25	100
The 100 marks proposed is for each paper. . For pass in the examination minimum 40% of mark is necessary for each component and aggregate of 50% .						

- It is proposed to charge re-examination fee of Rs. 5000/- per paper from trainees who have failed to clear/appear for the examination (Since huge expense is incurred for setting of question paper by examination board, honorarium to invigilators. paper valuation and declaration of result)
- The training centre will keep the evaluated answer papers of all training programme only for a period of three months from the announcement of results, There will be no revaluation of answer papers only recounting is permitted. The application for recounting should reach Livestock Management Training Centre, Kudappanakunnu within one month of announcement of result date of publication of the result in Kerala Gazette)
- It is proposed to re-allot the sessions for theory and practical classes as 10 the present requirement. (At present we have 800 sessions for 11 months training and 400 sessions for months and 92 sessions for 1 ½ months training. Each sessions has 1 ½ hour). Since the Livestock Inspectors promoted from lower cadre posts have no VHSE background, it is necessary to have separate session for VHSE portion for these trainees. The sessions have to be re- scheduled to suit the present needs. Sessions may be re-scheduled as follows

Session for 11 months		
Topic	Theory	Practical
	Revised	Revised
Part I-Anatomy, Physiology, Pharmacy	94	40
Part II- Animal Husbandry and Poultry Husbandry	200	36
Part III_Artificial insemination and Breeding	88	130
Part IV-Disease. Disease Control and First Aid	136	54
Ist day registration, exams exposure visits	22	
Total	540	260

Session for 6 months		
Topic	Theory	Practical
	Revised	Revised
Part I-Anatomy, Physiology, Pharmacy	44	20
Part II- Animal Husbandry and Poultry Husbandry	80	16
Part III_Artificial insemination and Breeding	66	70
Part IV-Disease. Disease Control and First Aid	58	24
Ist day registration, exams exposure visits	22	
Total	270	130

Session for 3 months-180 session		
Topic	Theory	Practical
	Revised	Revised
Part I-Anatomy, Physiology, Pharmacy	24	10
Part II- Animal Husbandry and Poultry Husbandry	36	14
Part III_Artificial insemination and Breeding	40	30
Part IV-Disease. Disease Control and First Aid	20	6
Ist day registration, exams exposure visits	Sessions will be met from above	
Total	120	60

- The curriculum should include exposure visits within the State (Premier Institutions of AHD, PSU, Boards and Universities).
- Changes not included in this revision, the Government Orders 1 & 2 cited will be applicable.