



SOP for Deworming of Farm Animals

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NVH-P-U1-07	01/01/2019	31/12/2021	001

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Revision History

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1 Purpose

1.1 This SOP describes the procedures for deworming of farm animals.

2 Scope

2.1 This SOP covers the procedures for deworming offarm animals.

3 Responsibilities

3.1 All the staffs of veterinary hospitals/ animal health centers and farms should follow these procedures.

Sl. No.	Official Designation	Responsibilities
1.	Veterinarians/Para-veterinarians	Administering the deworming medicine. Recording in the deworming register.
2.	Animal attendant	To restrain animals.
3.	Community animal health worker	Administering/ assisting in deworming, recording in the deworming register.

4 Definitions

4.1 **AHD:** It refers to Animal Health Division under the Department of Livestock.

4.2 **Animal attendant:** It refers to a person who helps in restraining of animals and ensures the well being of the animals during the treatment procedures.

4.3 **Community animal health worker:** It refers to rural people who are trained to provide basic veterinary services like treatment, deworming, vaccination and other animal health related advices to the farmers.

4.4 **DLO:** It refers to Dzongkhag Livestock Office.


4.5 **DoL:** It refers to Department of Livestock.

4.6 **DRA:** It refers to Drug Regulatory Authority.

4.7 **DVH:** It refers to Dzongkhag Veterinary Hospital.

4.8 **Deworming:** It refers to treating worms with drugs.

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4.9 **Effective Date:** It is the date that a document becomes effective for use.

4.10 **Farm Animals:**It refers to animals that are raised for home use or for profit. Farm animals include cattle, yak, sheep, goat, pig and horse.

4.11 **LECs:** It refers to Livestock Extension Centers.

4.12 **NVH:** It refers to National Veterinary Hospital, Thimphu.

4.13 **Para-veterinarian:** It refers to a person with diploma in Animal Science and is authorized to provide treatment to the animals.

4.14 **Procedure:** It refers to SOP.


4.15 **Review Committee:** It refers to a group of people from the department who will review the procedure to see if it should be improved, corrected, or changed.

4.16 **SOP:** It refers to Standard Operating Procedure.

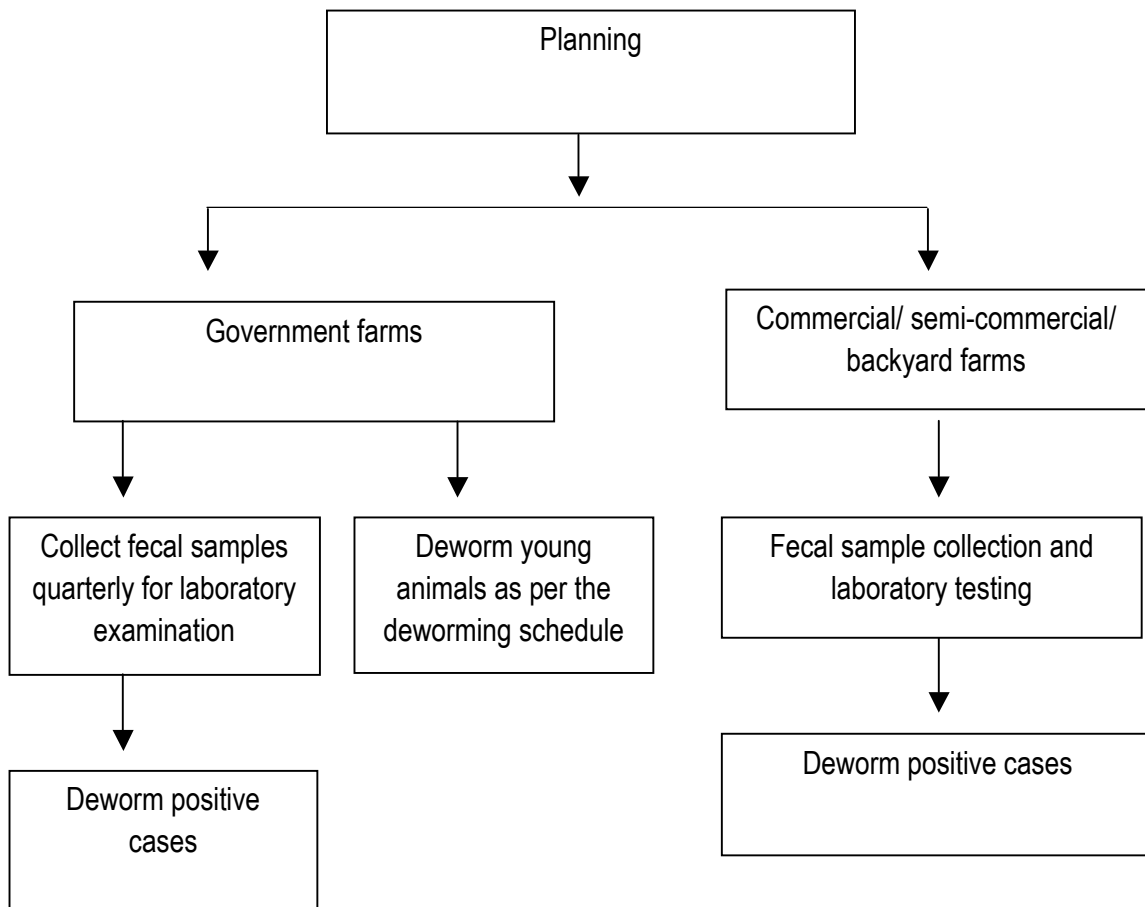
4.17 **TVH:** It refers to Thomde Veterinary Hospital.

4.18 **Veterinarian:** It refers to a person holding a bachelors degree in Veterinary Science and Animal Husbandry and is authorized to practice veterinary medicine.


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5 Process Map in Flow Chart



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6 Procedure

- 6.1 The deworming schedule for government farms and commercial/ semi-commercial/ backyard farms are divided as follow:
- 6.1.1 Government farms:
- 6.1.1.1 Plan deworming of respective farm animals as per the work plan.
- 6.1.1.2 Collect fecal samples on quarterly basis for laboratory examination in adult animals.
- 6.1.1.3 Carry out deworming against specific worms as per the laboratory results. Dispense the deworming medicines at the dose and rate applicable to each species (annexure 9.1).
- 6.1.1.4 Discard the used instruments and empty deworming bottles/ jars etc. according to the SOP for Disposal of Pharmaceutical and Biological Wastes
- 6.1.1.5 For young animals, deworm as per the deworming schedule currently practiced at the government farms.
- 6.1.1.6 Record the information of deworming in the deworming register/ database.
- 6.1.2 For Commercial/ Semi-commercial/ backyard farms:
- 6.1.2.1 Record the requests for deworming from the farm owners and visit the farms.
- 6.1.2.2 Collect fecal samples and conduct laboratory examination.
- 6.1.2.3 Communicate the results to the owner.
- 6.1.2.4 Make an appointment and arrange for necessary deworming medicines.
- 6.1.2.5 Carry out the deworming based on the laboratory results. Dispense the deworming medicines at the dose and rate applicable to the specific species kept at the farm (annexure 9.1).
- 6.1.2.6 Discard the used instruments and empty deworming bottles/ jars etc. according to the SOP for Disposal of Pharmaceutical and Biological Wastes
- 6.1.2.7 Deworming of young animals prior to weaning is recommended, as animals are susceptible to worm infestation at young age.
- 6.1.2.8 Record the information of deworming in the deworming register/ database.
- 6.2 Different types of deworming techniques used in farm animals
- 6.2.1 Drenches
- 6.2.1.1 Shake the drench container first, as many drenches settle out.
- 6.2.1.2 Check that the right dose is being given. The dose rate will be on the drench container label.
- 6.2.1.3 Check that the drench gun is calibrated to deliver the right dose. After you have set the dosage rate for the animal, squirt a dose into a measuring container to check for accuracy.
- 6.2.1.4 Insert the drenching gun nozzle into the animal's mouth from the side, between the incisor and molar teeth, and make sure that the nozzle is above the tongue. After the dose has been delivered, make sure that the animal has not dribbled or spat the drench out.
- 6.2.1.5 When the entire herd has been drenched, clean the drenching gun by

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pumping cold water through it. Don't use soapy water, as this tends to damage the rubber seals in the drenching gun, which may then cause incorrect doses in the future.

6.2.1.6 Check the withholding period for the particular drench being used. Different drenches have different withholding periods.

6.2.1.7 Store unused drench in the original container out of direct sunlight.

6.2.1.8 If using old drench, check the expiry date, which should be on the container label.

6.2.2 Injectable

6.2.2.1 Ivermectin 1% solution is commonly used as an endoectoparasiticide given through subcutaneous injection. It is used primarily for their effectiveness in controlling nematode and ectoparasite infestations in animals (annexure 9.1).

7 Related Forms or Work Instructions

7.1 SOP for Case Registration

7.2 SOP for Consultation

7.3 SOP for Customer Care

7.4 SOP for Clinical Diagnostic Services

7.5 SOP for Deworming of Pet Animals

7.6 SOP for Storage and Management of Medicines, Non- Drug Items and Equipment

7.7 SOP for Disposal of Pharmaceutical and Biological Wastes

8 References

8.1 Parasiticides for veterinary use in livestock (<http://www.PARASITIPEDIA.net>)

8.2 Merck Animal Health (<http://www.merck-animal-health.com/species/ruminants/parasite-control.aspx>)

8.3 National Veterinary Drug Formulary, 2016 Third Edition, NCAH, DoL.

9 Annexures

9.1 Commonly available deworming drugs for cattle/ buffalo/ horse/ sheep/ goat/ pig in the country

Sl. No.	Anthelmintics	Dose	Route
1	Albendazole	Cattle/Horse/Sheep/Goat/Pig: nematode and cestode – 5mg/kg BW PO, OD as single dose; Flukes- 15-20mg/ kg BW Dog/ Cat- 25-50mg/ kg BW PO, OD for 3-5 days	Oral
2	Oxyclozanide	Cattle/ Buffalo: 10-15mg/kg BW Sheep/Goat: 15mg/kg BW	Oral
3	Rafoxanide + Levamisole	Cattle/Sheep/Goat: 7.5mg/kg BW (Rafoxanide) 7.5 mg/kg BW (Levamisole)	Oral
4	Triclabendazole	Cattle/ Buffalo: 12mg/kg BW	Oral

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5	Fenbendazole	Sheep/Goat: 10mg/kg BW Cattle/Buffalo/Horse/Sheep/Goat/Pig: 5-7mg/kg BW Dog: 50mg/kg BW for 3 days Cat: 30mg/kg BW for 3 days Birds: 10-15mg/kg BW	Oral
6	Piperazine	Calf/Horse/Pig: 200-300mg/kg BW Dogs (pups <2.5kg): 45-65mg/kg BW (Adult and pups >2.5kg): 100-110mg/kg BW Cat: 45-65 mg/kg BW Birds: 32mg/kg BW	Oral
7	Praziquantel	Dog/Cat: 5mg/kg BW Birds: 5-10mg/kg BW	Oral
8	Tetramisole	Cattle: 15mg/kg BW Sheep/Goat: 15-30mg/kg BW Pig: 30-37mg/kg BW	Oral
9	Ivermectin	Cattle/Buffalo/Sheep/Goat/Horse: 200mcg/kg BW Dog: 100mcg/kg BW Cat: 24mcg/kg BW	Subcutaneous
10	Praziquantel + Pyrantelpamoate + Febantel	Dog: 5mg/kg BW praziquantel + 5mg/kg BW pyrantelpamoate + 20mg/kg BW febantel Cat: 5mg/kg BW praziquantel + 20mg/kg BW pyrantelpamoate	Oral
<i>Source: National Veterinary Drug Formulary, 2016 Third Edition, NCAH, DoL.</i>			

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