

# JOB ROLE – ANIMAL HEALTH WORKER

Sector – Agriculture

(Qualification Pack Code: AGR/Q4804)

Class IX



PSS Central Institute of Vocational Education  
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# **UNIT 2: IMPLEMENTATION OF PREVENTIVE ANIMAL HEALTH CARE**

## **Session 3: Deworming and Control of Ectoparasites**

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# Session Objectives

The student will be able to :

- Describe parasitic infestation and deworming in animal.
- Explain the aims of deworming and parameters to select dewormer.
- Describe Control of ectoparasites through administration of dewormers

# Introduction

## Worms:

Worms are internal parasites that live and prosper in the body of the farm animals. Worms grow at the cost of health of the host farm animal and lead to significant causes reduced milk production, conception rate, weight loss, roughness of skin, anaemia, diarrhoea, etc.

The major worms/internal parasites of farm animals are

1. Roundworms
2. Tapeworms
3. Flukes and
4. Protozoa

# How do Animals Get Parasitic Infection?

1. Excretion of the parasites through faeces of the infected animals contaminates almost all the grazing fields.
2. While grazing on such contaminated fields, the animals ingest these harmful parasites or worms.
3. Worms live inside the body of the animals and rob them for food and blood.
4. Thus, the need to control internal parasites will exist as long as farm animals graze the pastures.

Dewormers are used to control the internal parasites.

# Selection of Dewormers

1. Worms develop resistance against repeated use of particular dewormers. therefore instead of using same dewormer, alternative dewormers is used.
2. Dewormer is selected on the basis of
  - a) age of the animal,
  - b) weight of the animal and
  - c) activity of dewormer against different parasites.

# Selection of Dewormers (contd...)

## Properties of an ideal dewormer:

1. Acts and protects against both adult and larval stages of parasites.
2. Does not have any unpleasant sideeffects on the animal.
3. Cost effective
4. Stable and does not decompose on exposure to normal ranges of temperature, light and humidity and
5. Have longer shelf-life.

# Administration of Dewormers

## 1. Oral route

The majority of dewormers are given as liquid preparations, boluses and tablets orally.

- Administered using syringes, bottles and drenching through mouth.
- Boluses and tablets containing the dewormer are placed deep into the mouth of the animal or they can be crushed into powder form, dissolved in water and then given orally using a syringe.

## 2. Injectable route:

A number of dewormers are available as injectable preparations. The prescribed route of injection for a particular dewormer needs to be followed strictly.

# Ectoparasites and its Control

1. Ectoparasites are organisms which live on the skin of other animals and cause detrimental effects on the skin and the overall health of the animals on which they live.
2. They also act as carriers for transmission of other diseases in animals.
3. **Ectoparasiticide** : An anti-parasitic drug used for the treatment of ecto-parasitic infestations. These drugs kill the parasites that living on the body surface of the farm animals.

Different types of ectoparasites are:

1. **Mites**
2. **Lice**
3. **Ticks and**
4. **Flies**

# Ectoparasites and its Control (contd...)

- (i) **Mites and lice:** Parasitic mites and lice live on hair and outer layer of the skin. Both lice and mites permanently thrive on the animal body and feed on skin tissues and blood of the animal.
- (ii) **Ticks:** They live on the body of animal for a short period of time. They feed on the animal's blood and their bites cause irritation, swelling, redness and itching to the animal. Ticks are also responsible for transmission of a number of diseases.

# Ectoparasites and its Control (contd...)

**(iii) Flies:** They feed on blood, sweat, skin secretions, tears, saliva, urine and faeces of animals. They directly puncture the skin or infest on wounds of the animal. Flies can transmit many diseases from infected animals to healthy animals. They also cause irritation and disturbance to the animal, which results in reduced weight gain and milk yield.

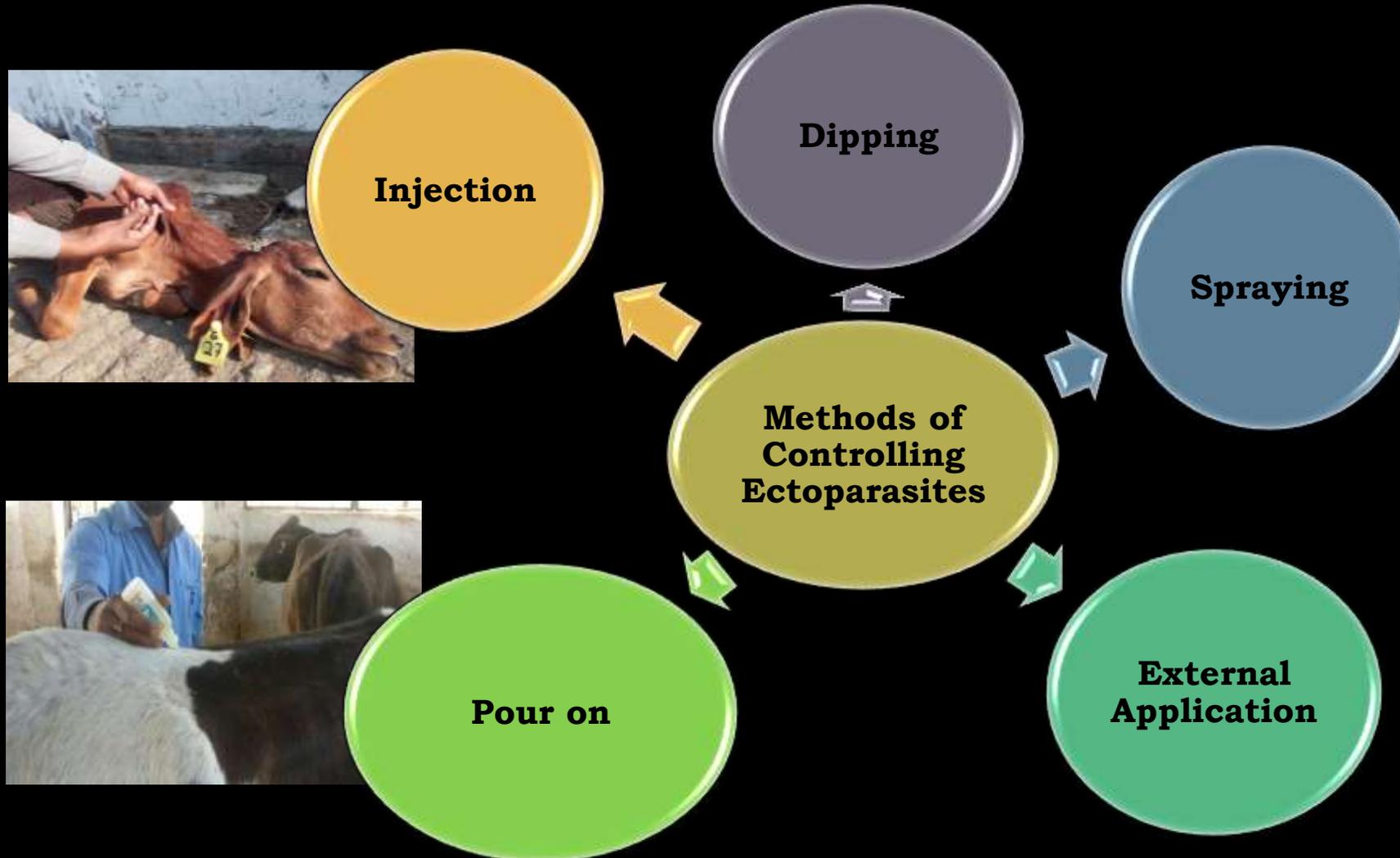
# Ectoparasites and its Control (contd...)

## Consideration for Controlling Ectoparasites:

- (i) New animals immediately upon arrival on a farm, must be treated with ectoparasiticides.
- (ii) A multiple dose of ectoparasiticide required to kill the active stages of the parasite and eggs with a gap of 15–21 days.
- (iii) Clean and disinfect animal houses, paddocks or barns with suitable chemicals to destroy the parasites and their eggs on the floor, walls and corners of the animal houses.

# Methods of Controlling Ectoparasites

Ectoparasiticides can be applied to animals through the following methods:



# Methods of Controlling Ectoparasites in Animal Houses

1. Ectoparasite control in Animal house achieved by an integrated approach and good farm management.
2. Maintain farm hygiene and health of animals
3. Reducing moisture in and around buildings by covering the drains, controlling water runoff and maintaining proper sewage systems
4. Regular removal of moist bedding, hay and manure
5. Controlling growth of weeds and grasses
6. Insecticides spray on the buildings, paddocks, barns, etc., after every two weeks

# General Precautions for Using Ectoparasiticides

1. Always use recommended dosage of ectoparasiticides.
2. Application of the ectoparasiticide on the animal body is not carried out in a confined and nonventilated area.
3. The animals are provided sufficient feed and water before dipping them in the medicine solution.
4. Ectoparasiticides are kept well secured so that feed or drinking water is not contaminated.
5. Ectoparasiticides are not applied to sick animals or animals under stress.

# General Precautions for Using Ectoparasiticides (contd...)

6. Animal health workers handling and applying medicine, must wear gloves, protective clothing, goggles and mask to avoid any contact.
7. The unused medicines are never poured into rivers or ponds. These can be drained into pits at least 150 meters away from water sources.
8. It is recommended that the sprayers are cleaned immediately after use.
9. It is extremely dangerous to reuse empty containers of ectoparasiticides. The containers are crushed and buried in an isolated area at least 50 cms below the ground surface.

# Summary

In this session, you have learnt about the selection and administration of dewormers, controlling ectoparasites, methods of controlling ectoparasites along with general precautions for using ectoparasiticides

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