

Pests of Cattle, Sheep, Goat, Poultry and Their Management

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A pest is any organism that is harmful to humans or their well-being. This expression primarily specifies species that do harm to animals, crops, forests, or irritate people, particularly in their homes. Because people have adapted their environment to meet their needs, they are intolerant of other species sharing their space when it interferes with human objectives. Household pests are unwanted insects, rodents, and other critters that enter homes and cause havoc or harm human health. Common pests such as cockroaches, ants, mice, and bedbugs may be present. These pests can wreak havoc in a variety of areas of the home, including the kitchen, bathroom, and bedrooms.

CATTLE PESTS

Blood sucking flies and myiasis flies

Myiasis refers to an infestation of living organ or tissue by maggots and thereby disturbances. The larvae invade the host through oral, nasal, ocular, sinusal, vaginal and urinal cavities (arterial). They also live under skin (cutaneous) in stomach (intestinal) and in wounds.

Horse fly, *Tabanus striatus* (Tabanidae: Diptera)

Stout flies resembling houseflies with rows of white stripes on the abdomen and prominent compound eyes. Females pierce skin of cattle and horses and suck the blood. Blood continuous to ooze out even after the fly has left the animal.

Cattle fly, *Hippobosca maculate* (Hippoboscidae: Diptera)

It is a leathery, thick and flat fly with strong tarsal claws. Adult suck the blood from the sides of the neck. It produces seed like puparia directly without laying eggs or larvae and the puparia drop to the ground and adult flies emerge in a week.

Sand flies, *Phlebotomus spp.* (Psychodidae: Diptera)

They are small slender, buff or brown-coloured hairy flies. Both sexes suck blood and transmit anthrax. Debilitating effect and reduction of milk yield are the symptoms.

Bot flies, *Gastrophilus intestinalis* (Calliphoridae: Diptera)

The eggs laid on inner side of forelegs and abdomen are licked by the horse. The first instar larvae

emerge with the moisture of tongue in two weeks' time and the pass into stomach where they attach to the wall and absorb nutrition and become full grown in 9-10 months' time. Later they pass out along with the faeces and pupate in the ground. Adult flies emerge in one month. Glandular activity is affected causing inflammation and lacerations and starves the host by obstructing the intestinal passage.

Ox warble fly, *Hypoderma lineatum* (Oestridae: Diptera)

Female lays eggs on hairs and the emerging maggots penetrate skin tissues on the back of the animal and form tumor like swellings.

Stable fly, *Stomoxys calcitrans* (Muscidae: Diptera)

Cosmopolitan flies breed on moist places. Both sexes suck blood from cattle, horses and other animals including man. Terror and restless are caused to animals. It transmits poliomyelitis, leprosy, swamp fever, trypanosomiasis (Sleeping sickness) and leishmaniasis in animals.

Cattle louse, *Haematopinus eurysternus* (Haematophinidae: Siphunculata)

Wingless flat bodies lice suck the blood and cause itching and irritation leading to hairless patches on the skin with sores.

SHEEP AND GOAT PESTS

Bot fly (Head maggot of sheep), *Oestrus ovis* (Oestridae: Diptera)

Viviparous flies deposit their maggots in the nostrils and frontal sinuses resulting in constant nasal discharge and sometimes obstruction of air passage. Severe infestation results in death.

Sheep ked, *Melophagus ovinus* (Hippoboscidae: Diptera)

Adults are wingless, leathery, hairy and suck blood from sheep causing intense irritation, making the sheep to bite the area thus damaging the wool.

Poultry pests

Shaft louse or bird louse, *Menopon gallinae* (Menoponidae: Mallophaga)

Both nymphs and adults feed on the feather, epidermal scales and skin exudations causing abrasions (wounds), itching and annoyance. The

growth of the young bird is related and the older birds become weak and lay fewer eggs.

Body louse or vent louse, *Menocanthus stramineus* (Menoponidae: Mallophaga)

Both nymphs and adults (prothorax not free, mouth parts are sucking type) suck the blood and feed on skin and cause serious injury to adult birds.

Poultry stick fast flea, *Echindnophaga gallinacea* (Hectosyliidae: Siphonaptera)

It attacks comb, wattles, around eyes and beaks particularly young chicks. Birds become anemic resulting in poor yield and even death.

Mosquito, *Aedes aegyptii* (Culicidae: Diptera)

It transmits malaria caused by *plasmodium gallinaceum*.

Bed bugs, *Cimex hemipterus* (Cimicidae; Hemiptera)

Both nymphs and adult suck the blood and cause loss in egg production.

Management

- Maintain hygiene in and around animal house to avoid attraction and breeding.
- Eliminate swampy areas around the animal house
- Oil the stagnant pools to avoid egg laying and hatching maggots.
- Efficient pasture management practices like burning of the grass.

- Liming of the soil and prohibiting susceptible animals from infested pasture to eradicate eggs and larvae from ticks.
- Efficient animal husbandry practices like shearing, crutching and docking reduce pest attack.
- Dress the wounds with BTB (Boric Acid 15 parts: Tar oil 2 parts: Bentonite 3 parts).
- Treat the manure with borax + calcium borate + water to kill larvae of many flies.
- Apply malathion 5D on the animals every fortnight to control *Hippobosca*
- When bot fly larvae are detected in faeces, give 1.5 g of carbon disulfide in gelatin capsule on empty stomach.
- Apply nostrils with 3% Lysol or spray the nostrils with 10 ml of emulsified extract of male fern against sheep bot.
- Wounds may be dressed with pine oil (repellent) after removing the maggots by forceps after a spray of 5% chloroform.
- Apply fenitrothion 50EC at 100ml in 10 litres of water on tail, inside the ear and folds of legs to control cattle fly.
- Dust malathion 5D all over the body, rubbing with dust on the head, back and under side of the wings of birds, painting the roosts and sheds with 1% lindane or 4% nicotine sulphate will be effective.

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