



## Care and Management of Equines

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Equines are extremely sensitive to micro and macro environmental changes in feed and handling. Horse care includes understanding the horse's need, structure and how the systems in its body function, learning to recognise signs of illness, dealing with injury and disease, and knowing how to use horse equipment and tack. The anatomy, body systems, and natural behaviour of the horse are all adapted for a life as a herd animal and dictate how it should be cared for.

### Management of newcomers

All the purchased/acquired equines should be isolated for a quarantine period of a minimum 21 days to a maximum of 40 days to be screened, observed and prepared before entry into main stables. During the quarantine period, the following are to be attended to

- Weight of the animal to be recorded.
- All non-specific infections, wounds etc. to be attended
- Hoof care to be provided.
- Immunizations/vaccinations to be administered
- Deworming to be done
- Detailed hematology and liver and kidney function tests to be conducted.
- The collection of naso-pharyngeal swabs for *Streptococcus equi* isolation,
- Dentition should be checked and teeth rasped if necessary.

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- Animals to be named/numbered/tagged (Ear tags/ hot or cold branding)

| Disease/ Vaccine                        | Frequency              | Comments   |
|---|------------------------|--|
| Tetanus Toxoid                          | Annual                 | Booster at the time of penetrating injury / surgery- if the last dose is not administered within 6 months. |
| Equine Encephalitis (EEE, WEE) optional | Annual                 | In endemic areas booster every 6 months  |
| Equine Rhinopneumonitis                 | Every 3 months/ Annual | -  |
| Anti - Rabies                           | Annual                 | Compulsory   |

**Table a:** Suggested immunization schedule for equines.

### Housing and hygiene

#### Housing

Horse in stable must be provided good food, water and bedding and the psychological needs of the horse should also be attended to. The minimum size of horse stables should be 12' (length) x 10 (breadth) x 9 (height). The floor must be hard wearing, impervious to moisture, have a non-slip surface and should slope gently for drainage. The stable should be well ventilated from all sides. They may be loose boxes or stalls. Loose boxes are individual 'rooms' for horses and may open to the outside or are enclosed in a larger barn. Stalls have solid partitions and a single bar across in the front.

The horses should be exercised, groomed, and socialised on a daily basis in an open area. As a result, a huge open grazing area with sand baths should be included in the housing unit. Stabled horses require clean, warm bedding. Bedding gives comfort and protects horse feet from being injured by standing on a hard surface for an extended period of time. Stables should be well ventilated, with an air vent located near or in the stables' roof to allow air circulation. Roofing should not make a lot of noise when it rains or gets too hot in direct sunlight. To protect the horse and its bedding from the weather, the roof should have an overhang. The roof should have good downpipes so that the accumulated rainwater can run into a drain.

Stable doors should be at least 3.5 feet wide and 7 feet tall. Stabled horses must be exercised/rolled at least 2-3 times per day. The 'Open Barn' system, which combines a sheltered area with an open paddock, is a better alternative to stables. Adequate feeding and water troughs should be provided in the common barn. A grazing area and sand baths should be provided in the paddocks. Paddock and open field fencing for stabled horses should be made of a safe metal/wood material. Barbed wire and wire mesh cannot be used. Fencing and gates made of wood or metal are to be used.

## Hygiene

### Sanitation and disinfection of stables, barns and exercising yards

- Remove all manure, litter, and combustible objects from the stables and dispose of them properly.
- Any contaminated earth surfaces should have at least 4 inches of top soil removed.
- Animal stable flooring should be sloped to eliminate any water stagnation spots.
- All equipment used to remove manure and clean the stables should be thoroughly washed with water and an appropriate animal friendly detergent and disinfectant.
- All surfaces and equipment in the building should be kept clean and disinfected.
- If spraying does not effectively disinfect buildings or other facilities, they should be sealed and fumigated. Before replenishing, let the facilities dry and sit empty for a day or two.

- Fly control measures to be undertaken using safe eco-friendly fly repellants.

### Standards of nutrition and feeding

The horse is a non-ruminant herbivore that undergoes microbial fermentation in the cecum and colon. The stomach only accounts for about 8% of total digestive tract capacity, and it is small in comparison to body size. The hindgut accounts for 62 percent of the total digestive tract capacity. Horses, unlike cattle, cannot digest and utilise crude fibre efficiently.

The horse is a herbivore and is behaviorally accustomed to continuous feeding; they spend the majority of their time grazing or browsing. In stabled horses, their movements are restricted and socialisation is reduced. Individual housing and intermittent feeding both increase the likelihood of gastro-intestinal colic problems

### Principles of feeding

- The animals should be fed with concentrates three times a day.
- The freshly computed concentrate should be fed as per the needs of individual animals.
- The concentrate feed is filled in mangers, which are fixed at chest level, for comfortable intake and to avoid contamination, wastage or spillage.
- The manger provided should be of optimum size so that the ration will occupy only  $\frac{3}{4}$  of the height to avoid spillage.
- The manger should be emptied every time and cleaned well before refilling for the next feed.
- Roughages (green and dry) are also allotted on the body weight basis.
- Roughages are provided in the stable in separate hay racks/hay nets and should be fixed at chest height.
- Fresh and good quality hay must be ensured and fed at specified timings in appropriate quantities to avoid spillage and wastage.
- The hay racks/ nets must be cleaned well before refilling:
- The equines should have constant access to clean and potable water whether at pasture or in stable.

- The source should have large surface area for animals to have easy intake on an average 25 to 30 liters of water may be required daily.
- It is again preferable if the water source is at chest height for comfortable access and to prevent contamination and pollution.
- In winter, rainy, chilly days or in cases of higher altitudes where the ambient temperatures will be low, the horses must be fed with warm water that will encourage more in take.
- Rodent and moisture free facilities for storage of feed and fodder should be ensured

**Endoparasite control**

Equine management includes the use of a suitable dewormer at the proper time of year for the target parasite, as well as adequate pasture management. Anthelmintics that are used on a regular basis should be cycled once a year to avoid the development of resistance. It should not, however, be changed every time the horse is dosed because this makes the worms more resistant to the dewormer.

| S.No. | Drug          | Dosage              | Target organism     |
|-------|---------------|---------------------|---------------------|
| 1.    | Ivermectin    | 200 mg/kg body wt.  | Nematodes/bots      |
| 2.    | Thiabendazole | 44 mg /kg. body wt. | -do-                |
| 3.    | Mebendazole   | 8.8 mg /kg body wt. | -do-                |
| 4.    | Oxyfendazole  | 10.0 mg/kg body wt. | -do-                |
| 5.    | Fenbendazole  | 10 mg/kg body wt.   | Nematodes           |
| 6.    | Pyrantel      | 6.6 mg/kg body wt.  | Strongyles/Ascarids |

**Table b:** Commonly used anthelmintics in equines.

**Note**

- **MORAMECTIN:** Available in a syringe. The contents of this syringe will treat one Horse worming paste (30g) horse of 600 kg. body wt. For ponies 5 ml/100 kg body wt. (Avermectin 4 mg/ml Morantel taltarate 167 mg/ml)
- **PANCUR PASTE:** For nematodes (large and small) (1 dose applicator containing 24 g paste) Ascarids, Oxiurids
- **EQVALAN PASTE:** A complete horse dewormer (MSD) - Nematodes and bots (Ivermectin) One syringe contains sufficient paste to treat one 600 kg horse 200 mg/kg body wt.).

**Maintenance of records i documentation**

Records and documentary proof of the equines in possession and production with necessary and important information must be scrupulously maintained in every institute and they must be open to verification and inspection.

The following registers must be maintained

- Livestock register with details of age, sex, source, identity etc.
- Individual animal health card
- Individual animal production record of immunizations, bleed volume, harvest etc.
- Feed and stock register
- Veterinarian’s daily journal
- Sick Bay register and treatment register
- Roaster of deworming and vaccinations
- Quarantine and Isolation register
- Mortality and Postmortem register

**Care of sick and injured equines**

Equines develop disorders as a result of domestication and confinement in stables or paddocks. They are usually digestive, respiratory, or behavioural in character, and should be checked for and dealt with accordingly. Stable employees must be taught to spot common illnesses and be familiar with first aid and nursing. Generally, such creatures should be housed in a clean, large, well-ventilated loose box with adequate bedding, with a separate caretaker on duty 24 hours a day, seven days a week.

If necessary, offer emergency first assistance before contacting a veterinarian. Small portions of the horse’s normal feed can be combined with the medicines. If it still won’t take it, try adding a strong flavour like molasses or hiding the medicine inside a hollowed apple or carrot. Horses prefer routine, which is even more crucial when they are sick. At regular intervals, serve meals and perform other activities. Even for unwell horses, grooming is important since it actually freshens them up, unless it causes any pain.

**Recognition of pain in equines**

The following signs are indicative of pain in equines

- Periods of restlessness
- Interrupted feeding with food held in the mouth uneaten
- Anxious appearance with dilated pupils and glassy eyes
- Increased respiration and pulse rate with flared nostrils
- Profuse sweating
- Rigid stance
- Frequent yawning
- Frequently lying down

When in pain for an extended period of time, behaviour can shift from restlessness to depression with the head lowered. In pain caused by musculoskeletal damage, limbs may be held in unusual positions, and there may be a reluctance to move, with the head and neck “fixed.” A pain-induced tachycardia may occur. When a horse is in pain, it may look at, bite, or kick its abdomen; it may get up and lie down frequently; walk in circles; roll and injure itself as a result of these activities, especially around the eyes. This state may persist for several hours.

When the horse is on the verge of collapsing, it may stand rigid and immobile, but with signs of deteriorating circulatory status such as mucosal cyanosis and prolonged capillary filling time. Horses in pain typically exhibit. Horses in pain generally show a reluctance to be handled.