

Preventing disease outbreak: Some Pointers

Vaccination of Livestock: The things that you should know



- Ensure that vaccinator carries the vaccines in a proper way
 - Foot and Mouth disease vaccine is to be brought under the cover of ice but NOT frozen as frozen vaccine are useless. It is also true when you purchase vaccines from a medicine shop.
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- Vaccine for diseases like HS (Haemorrhagic Septicemia), B Q (Black Quarters) is not necessarily to be carried in ice but they are to be carried in a well-protected (from sun) box and are to be kept in cool and dry place.
 - Ensure that separate needle is used for each animal, duly sterilized in boiling water (Not just hot water)
 - Any vaccine needs to be used before the company marked expire date. Employ a reliable person to check and note name of the vaccine and batch number.
 - Inquire about the proper dose of the vaccine and ensure that the same is given as per instruction. In case where vaccine needs to be administered under skin (sub cutenious) ensure that the administrator pulls the skin before pushing the needle as simple stabbing does not ensure that vaccine will go under skin
 - Animals receiving vaccination may show allergic reaction within few minutes to few hours (2 min to 6 hours). Ensure that, your vaccinator is prepared to face such situation. E.g. easy availability of anti histaminic drugs.
 - Do not allow vaccinator to use the needle from ground unless it is sterilized again.
 - Always vaccinate your animals preferably after evening milking, during cool hours of the day.
 - It is necessary that you should protect all animals in the herd not only the selected ones. Follow a schedule of vaccination unless there is a need of emergency vaccination in the face of an outbreak.

Your Vet will help you in identifying the disease and suggest you guidelines for its treatment and control. Ask for your vet's help in identifying possible sources of infection so that you can prevent such occurrence next time.

Vaccines and when to administer:

- Against Haemorrhagic Septicemia: Administer before monsoon (In the month of April –May) repeat it in September – October
- Against Black Quarters: Administer once a year before rainy season(April-May).
- Against Anthrax : Unless specified in your area , there is no need to go for this vaccination
 - Against Foot and Mouth disease :

For cross breed cows: Thrice a year*

Buffaloes / others: Twice a year*

*You may have to vaccinate your animals again in the face of outbreak (If advised by your Veterinarian)

A new oil adjuvant vaccine is now available in the market, which needs to be administered only once a year.

Vital signs in Ailing Cows & Buffaloes: Some Tips for effective observation

- An ailing animal appears dull (Lack of alertness)
- The eyes are not shining or are not bright.
- Its neck is lowered
- The muzzle becomes dry or crusty.
- There may be discharge from eyes or nostrils or both. Increase salivation is another observation, which can indicate wound in gums, cheeks, or tongue besides problems like acid indigestion, esophageal choke or teething problem in young ones.
- An ailing animal lags behind other animals and could not walk freely.
- There may be change in color and consistency of dung and / or Urine.
- There may be uterine discharge or discharge from vulva.
- A sick animal will refuse concentrate feed or even water (This is the first and most important sign of illness)
- On close observation you can find out that there is either reduced or suspended rumination.
- On touching or patting of the animal, there is no characteristic movement of skin.
- Champing of jaws may indicate pain in abdomen or worm infestation in young animals.
- Sterna recumbence is an observation in ailments like Milk fever (Low circulating calcium in the blood), abdominal pain and indigestion.
- Animals showing difficulty in either sitting or getting up , may be suffering from diseases like dengue fever, traumatic reticulitis, severe phosphorous deficiency , pain in chest , dilatation of heart , bone deformity (fracture / dislocation) , muscle injury , arthritis and hoof problems (wound in or around hoof)
- Laying prostate, is an indicative of severe illness.

(Courtesy: <http://kashvet.uni.cc/>)

- Red-hot swelling in any part of the body may be an abscess or muscle / tendon injury. When such swelling is noticed in udder, it may be a case of acute mastitis.
- Whiteness of the eye is may be due to corneal opacity or cataract.
- Red urine or coffee color urine is a unique observation is diseases and situations like Babesiosis, copper poisoning, phosphorous deficiency, severe cystitis, urethritis or plant and chemical poisoning.
- Diarrhea :
 - When watery and foul odor with accompanying fever: It is a bacterial infestation.
 - When with blood: The animal may also be suffering from other diseases like Coccidiosis.
 - Simple diarrhea: Is seen in indigestion and worm infestation.
 - Diarrhea with intestinal cast: Is an indicative of salmonella infection or may be intestinal form of HS.

GOOD OBSERVATION SKILL IS A PREREQUISITE OF SUCCESSFUL FARMING. YOU CAN SHARE YOUR EXPERIENCES.

IT IS ALWAYS USEFUL TO NOTE DOWN ALL YOUR OBSERVATION BEFOREHAND AND DISCUSS THEM WITH THE VISITING VETERINARIAN

Feeds and Feeding Practices in Dairy Animals: General Principles

- Dairy animals are ruminants and as such need bulk amount to fill their stomach.
- Dairy animals need to be fed for :
 - Maintenance of their body (day to day function).
 - For production of milk.
- In case of pregnancy, they need extra feeding in the last two months (for good health of the calf)
- Dairy animals are herbivorous and eat crop residues, cultivated grasses, tree leaves etc.
- On average dairy animal needs following quantity of dry matter (out of feed , fodder , concentrate they are being fed with) per day:
 - 2% of body weight for their survival.
 - 2.5 % of body weight for their survival and little production (6-8 Liters of milk per day)
 - 3% of body weight for their survival and production of 10 to 12 liters of milk
 - More than 3% of body weight in case of more production.
- Dairy animal young or old, empty, pregnant, in milk, or dry must be fed with mineral mixtures.

(Courtesy: <http://kashvet.uni.cc/>)

- Fresh, cool and abundant drinking water as or when required is necessary for good health and efficient production. Animals can drink hard water once they are accustomed to it (usually needs 8- 10 days). They reject water containing more than 2% sodium chloride.
- Dairy animals are fed with fodder (green / dry), concentrate (home made or commercial): Concentrate is the mixture of grains and leguminous seeds besides bran. Ready-made commercial concentrates are mixtures of grains, urea, and molasses and may contain mineral mixture and vitamins.
- Dry matter content can be grossly calculated as:
 - Concentrates : 70% is dry matter
 - Green Fresh fodder : 10% is dry matter
 - Green dried in air / sun : 20% dry matter
 - Dry fodder / crop residues: 85% dry matter.
- While feeding note that, dry matter requirement should be met with 1/3 from green fodder, 1/3 from concentrate and 1/3 from dry fodder. Give dry fodder ad lib. Proportion of leguminous and non leguminous fodder should be in the ratio of 40:60
- Concentrates are usually costly. If needed, you can replace some amount of concentrate with green fodder. Five kilogram of leguminous green fodder is nutritionally equivalent to one-kilogram concentrate. Similarly, 8-10 Kilogram of non -leguminous green fodder is equivalent to one kilogram of concentrate.
- In home made concentrates: mainly crushed leguminous seeds (after threshing) and food grains are mixed in the proportion of 40: 60 along with oil cakes and bran in small quantity. For leguminous seeds *Gram* , *Soya* , *arhar* , *Udid* , *Mung* , *Math* are used and for food grains *Maize* , *Jowar* , *Bajra* , *Wheat* , *Rice* are used.
- Fodder tree leaves viz. *Subabhoole*; *anjan*, *Shewari* etc. are best utilized as dairy animal fodder.
- Concentrate of leguminous nature contain 20-24% proteins, food grains contain 8 – 12 % protein. Green leguminous & non-leguminous fodder contains same quantity of protein on the dry matter basis. Dry fodder contains 3 to 5% proteins.
- Concentrate also contains oil cakes (Groundnut, cottonseed, copra, sesam, soya, sunflower etc.) On an average, they contain 24% protein.
- Besides protein animal needs energy. The best and cheapest source of energy is food grains (They contain carbohydrate). Protein and fats can also provide energy but they are costly. Oil in extracted oil cakes can also provide energy.
- Mineral mixtures are essential especially in growing, lactating and pregnant animals. These mixtures contain Calcium, Phosphorous, Magnesium, Iron, Copper, Zinc, Manganese, Selenium, Cobalt, and Iodine in appropriate proportion. Such mixtures are commercially available. The recommended doses are.

(Courtesy: <http://kashvet.uni.cc/>)

Adult	30 gram per day
Growing Animals	15 to 20 grams per day.
Lactating animals	50 grams per day.
Advanced pregnant animals	40 grams per day

- There is no need to supplement vitamins. Animals, which are under shade, need Vitamin D and Vitamin E. Animals not getting green over a period of six months need vitamin A to be supplemented. While Vitamin D & E remains intact, Vitamin A in mineral mixture is not generally available to the animals.

Some Tips:

Any feed, fodder is good to animals when they relish on it, remain healthy, breed, and produce milk. Animals are the best mirrors to choose the type and quality of feed and fodder.

It is an art to compute a ration for milk producing animals depending upon the locally available resources. A qualified and experience veterinarian can guide you in formulation of suitable ration.

Animals once adapted to particular feed takes some time (10 –15 days) to switch over to other type of feed.

Animals are the creatures of habit, whatever habit you create (e.g. giving concentrate at the time of Milking or concentrate soaked in water overnight) they will adapt to it. Find the best suitable method that is acceptable to your animals.

(Courtesy: <http://kashvet.uni.cc/>)