

- Bacterial pneumonia caused by *Pasteurella haemolytica* and *Pasteurella multocida* is very common in goats. The disease affects young kids above 3 months age, and those in feedlot conditions are most susceptible. Adults are also affected. Generally, climatic stresses such as sudden environmental fluctuation and weaning stress act as predisposing factors in young animals. Vaccination is done annually.

Vaccination Schedule

Name of Disease	Initial Vaccination		Initial Vaccination
	1 st Injection	Booster Injection	
Foot & Mouth Disease (FMD)	At 3 months age	3-4 months later of 1st injection	Every six months interval
Peste-des- petits ruminants (PPR)	At 3 months age	Not required	Confer immunity for 3 years
Goat Pox (GP)	At 3 months age	3-4 weeks later of 1st injection	Annual vaccination
Enterotoxaemia (ET)	At 3 months age	3-4 weeks later of 1st injection	Annual vaccination (two dose with 1 month interval)
Hemorrhagic Septicemia (HS)	At 3 months age	3-4 weeks later of 1st injection	Annual vaccination

Coccidiosis is a very important disease in kids immediately after weaning due to closed confinement. Therefore, deworming and anti-coccidial treatment should be followed strictly. Deworm with two drugs of different classes (to avoid introduction of resistant parasites.) Typical drugs include fenbendazole (Panacur®), albendazole etc.

Name of Infestation	Age	Period of Administration	Recommendation as feed mix , if any
Coccidiosis	2 – 6 months	Any coccidiostat for a week period Baycox (toltrazuril)	Monensin @20 gram/ 100 Kg feed up to 5 months of Age
Endoparasitic infestation	After 5 months	Pre & Post monsoon Panacur/ Fentas +/- Ivermectin inj	Additional dose may be given if high EPG
Lice infestation	-	Pre & Post winter	(cutirose 0.1% cypermethrin)
Tick infestation	-	Monsoon months	(cutirose 0.1% cypermethrin)

Conclusion:

Goat rearing can be a successful venture when health aspects are taken care effectively. The major activities that should be applied are vaccination, deworming, hygiene management, all-weather shelter to protect from vagaries of climate, clean drinking water, balanced feed and farm biosecurity for an effective health management



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HEALTH TIPS FOR SUCCESSFUL GOAT FARMING

Goat Farming offers good scope in improving the livelihood of farmers, livestock keepers and rural population. The major hindrance in goat farming that sabotages this economic cycle of development are diseases and mortality. This folder will give brief information on how to manage the diseases and other health-related problems by various methods.

Managemental interventions for healthy upkeep of animals

Cleanliness and hygiene

A healthy herd is dependent on a healthy management, and a healthy management relies on cleanliness and hygiene. Hygienic upkeep of the farm premises is the key to prevention of the commonly occurring diseases like diarrhea, pneumonia and parasitic diseases. Young kids of 0-3 months of age are the most affected due to unhygienic conditions including colibacillosis, coccidiosis, rotaviral diarrhea and diarrhea due to other unknown causes. The major route of infection is faeco-oral and it can be curbed by frequent clearing of the floor dirt and changing the upper layer of the mud/sand every year.

Feeding management

Nutritional balance is very important to progressive growth of the animals. Sudden change in the feed can prove fatal for the survivability of the goats. Avoid overfeeding before Eid or festive seasons. It is essential to balance the feeding habits to optimum based on the physiological state (growing stage or adult buck or pregnant animals) of the animal for a better growth rate

Quarantining newly purchased animals

Newly purchased animals should never be mixed with the existing herd at least for 21 days. They must be monitored for any signs of symptoms of disease usually manifested by dullness, difficulty in breathing, nasal discharge or diarrhea or any other skin lesions. These animals should be vaccinated against important diseases.

Harsh weather and health management – extreme dry weather, rainy season and winter

Extreme weather conditions always precipitate disease in animals. Extreme heat can lead to dehydration and

subsequently affect the production. Transition weather like winter to spring, summer to rainy and summer to autumn can expose the animals at risk of contacting the diseases. Winter to spring transition can lead to spread of infectious diseases like PPR in goats. This can be avoided by prior vaccination against PPR. Usually damaged wheat crop with semi-matured or rotten grains are fed to the animals which leads to metabolic acidosis and heavy mortality. There is also a risk of mouldy grains intake leading to poisoning and death.

Common infectious diseases affecting goats and their control strategies

- **FMD** is a very dreadful disease of domestic animals, but in goats, signs and lesions can be very mild. In susceptible kids under 1 month of age, morbidity may approach 100 per cent. Best way to prevent is vaccination of herd (see the table below for details).
- **PPR** is characterized by high fever, severe depression, decreased appetite, watery nasal discharge, respiratory distress, conjunctivitis, mouth ulcers or lesions, severe diarrhoea and abortion. Usually PPR vaccination can give protection up to 3 years, but new crop (kids of more than 3 months) and purchased animals needs to be vaccinated every year.
- **'Orf'** causes mouth scabs and ulcers leading to poor feeding in adults or poor suckling and weakness in kids. Although no vaccine is available in India, it can be managed by antibiotic and supportive therapy along with application of potassium permanganate lotion.
- **Enterotoxaemia (ET)** needs annual vaccination along with booster doses. ET occurs more commonly in well-fed kids and feedlot kids on heavy grain ration and animals that tend to overeat concentrate diet competitively. Overeating on concentrates, lush pasture generally precipitates ET. In goats, diarrhoea and sudden death after grazing are common symptoms.
- **Brucellosis** causes high percentage of abortions in a farm or in a herd. Besides abortions, the disease can make the animal infertile and male animals become unsuitable for breeding due to orchitis. The best way to

control is by removing the Brucella positive animals from herd and bar them from breeding activities. Screening for Brucella can be done from nearby state veterinary labs or Universities or ICAR-CIRG, ICAR-IVRI, Izatnagar, Bareilly. Vaccination is not practiced in our country for small ruminants



Mouth lesions in PPR



Nasal Discharge-PPR



Skin eruptions - Goatpox



Diarrhoea - Colibacillosis



Hemonchus infestation



Orf - Mouth lesions



Enterotoxaemia - Intestine lesions



Johne's disease - weakness