

## Management of Goat Kids from Birth to Weaning

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### Abstract

The goat, known as the "poor man's cow" in developing countries like India, plays a crucial role in improving rural livelihoods by providing income, nutrition and resilience to marginalized farmers. The goat is a small, marginal and landless animal. It is an important part of the world's economy and it is widely distributed in developing countries like India. In this paper, we will review some of the key reasons why proper care is essential as goat kid weaned late or early age with an average of 60-90days. Goat kids need specialized care, just like any other infant animal, in order to flourish. Vaccination and deworming play a paramount role in safeguarding newborn goat kids, primarily by diminishing the risk of disease outbreaks and enhancing their chances of survival. In addition, goat milk has low levels of immunoglobulins, Pasteurella and Caprine Arthritis Encephalitis (CAE) pose significant threats to young goats. In some cases, a torn ear can affect the animal's appearance and market value. Disbudding and dehorning should be performed within a specific timeframe for male and female kids. Castration also improves the quality of the adult buck's meat.

### Introduction

The goat plays a significant role in alleviating the socio-economic circumstances of farmers in developing nations like India, where it is known as the "Poor man's cow" (Nedumaran, 2023). The substantial rise in population from 135.17 million in 2012 to 148.88 million in 2019, a 10.1% increase over the previous census shows the socioeconomic significance of goat rearing in India (Goat fair, 2023). Because of its browsing habits, it is more cost-effective than any other livestock. Due to its resilience, adaptability, feeding habits and prolificacy, farming is a preferred method for tiny, marginal and landless farmers. They gave us meat, hides, manure and wool in addition to milk (Monteiro, 2018).

### Care of Newborn Kid

Caring of a newborn goat kid is crucial for several reasons, including their health,

development, nutrition and overall well-being. Here are some of the key reasons why proper care is essential as goat kid weaned late or early age with an average of 60-90days (Berg *et al*, 2005).

### Health Management

Goat offspring can be born at any time of year, although they are most prevalent in the spring. Like any other infant goat new born need personalized care for healthy growth. Raising healthy goat calves requires proper nutrition, interaction with other goats and frequent health examinations. It's crucial to understand goat kids' basic needs if one just starting out in goat farming.

Using dry cotton or rags, gently clean the kid's nostrils and remove any placental membranes that may be sticking to them. For a few seconds, holding the kids up with their rear legs while lowering their heads helps in cleaning

their respiratory tracts. In thirty minutes, the kid will stand up and begin to walk. Let kids get licked dry by the doe. Dip the end of the umbilical cord in iodine tincture. Within thirty minutes of delivery, the infant should get its first sip of colostrum. The teats should be lifted by the hand and forced into the children's mouths if they are having trouble sucking.

Infants weighing less than 2.5 kg at birth are more likely to die from hypothermia and have a higher mortality rate than average. They may also be tube-fed to obtain colostrum, which gives them energy to help warm their bodies. Kids born weighing more than 5 kg are also susceptible to dystocia. A kid that has a rectal temperature of less than 36.5 °C is severely hypothermic and needs to be warmed, either by blowing warm air from a hair dryer or portable electric heater, or by submerging him in warm water (Hart & Delaney, 2016).

### Feeding management

The goal of new-born childcare and management is to reduce mortality while improving health and performance. Within a half-hour or so after delivery, healthy babies stand up, seek teats and suckle. Does produce and provide milk and colostrum to their young. The only source of nutrition and immunoglobulin for the neonates is colostrum a “liquid gold.” The transition from colostrum to regular milk takes two to three days. Young children only consume milk until they are able to digest other foods, which develop between 3 and 4 weeks of age and are finished by 8 to 9 weeks of age.

In order to eat colostrum at a minimum rate of 15-20% of their body weight within the first eight hours of life, ideally within the first two to three hours following delivery, children must nurse their mothers (does) during this time. Colostrum, which contains vitamins and antibodies such as gamma-globulins that have twice the total solids and seven times the protein of regular milk, can shield kids from a number of diseases, such as enterotoxaemia and tetanus. Early weaning of replacement children might result in their malnutrition and will have a negative impact on their ability to produce.

For first 3-4 days kid are free choice to Colostrum and given at the rate of 100 ml per kg live weight. Since goat milk has low levels of

immunoglobulins, CAE-free goat milk is better for raising children than milk substitutes. At age of 15 days to 2-3 months creep ration will be followed at the rate of 50–100 gm/animal/day having 22 per cent protein and Antibiotics like oxytetracycline may be mixed.

### Milk Replacer

Tanabe and Kameoka (1977) found that children fed milk replacer, which contained soybean protein, had 20% less growth. The lower digestibility of soybean protein in comparison to milk protein was discovered to be a contributing factor in this. Colostrum should never be replaced with milk replacer and kid not fed it until they are older than 24 hours. A milk substitute that closely mimics doe's milk is the best option. An ideal combination of energy (fat and carbs), protein, vitamins and minerals can be obtained with the right milk substitute.

Begin feeding milk replacer 24-48 hours after delivery once colostrum feedings are finished. Goat kids will primarily be fed milk replacer until they are weaned. Give milk replacer by bottle or pail three times a day to infants between the ages of two and ten days. Frequent and smaller feedings can improve digestion and lessen stomach aches.

### Vaccination

Vaccination plays a paramount role in safeguarding newborn goat kids, primarily by diminishing the risk of disease outbreaks and enhancing their chances of survival. Diseases such as PPR, FMD, Goat pox, Sheep pox, Enterotoxaemia and Haemorrhagic septicemia pose significant threats to young goats.

SR. No.	Diseases	Primary Vaccination		Repeat vaccination
		First Injection	Booster Injection	
1.	Peste-des-Petitis Ruminants (PPR)	At 3 months of age	Not required	After 3 years
2.	Foot & Mouth Disease (FMD)	At 3 months of age	3-4 weeks after 1 <sup>st</sup> Injection	Every 6/12 month interval
3.	Goat Pox (GP)	At 3-5 months of age	3-4 weeks after 1 <sup>st</sup> Injection	Annually
4.	Sheep Pox (SP)	At 3-5 months of age	3-4 weeks after 1 <sup>st</sup> Injection	Annually
5.	Enterotoxaemia (ET)	At 3-5 months of age	3-4 weeks after 1 <sup>st</sup> Injection	Annually
6.	Haemorrhagic Septicaemia (HS)	At 3-5 months of age	3-4 weeks after 1 <sup>st</sup> Injection	Annually

### Deworming

Deworming should primarily be done when

kid reaches 3 months of age. It is recommended to carry out deworming before the onset of the monsoon, typically around May or June each year. In regions where waterlogging is a concern, should be performed twice a year—both before and after the monsoon season.

Commonly used deworming drugs include Albendazole, Fenbendazole, Nilzan and Ivermectin. To prevent of drug resistance, rotate the medication used for each deworming cycle.

### **Ear tagging**

Ear tagging is a method used for permanent animal identification. It involves attaching a tag to the ear, typically between the middle and lower cartilage ribs. Placing the tag closer to the head is advisable to minimize the risk of tearing. The identification number should be visible from the outside. Additionally, different ears can be used for tagging based on the animal's gender to help manage large groups of animals effectively.

However, one of the drawbacks of using ear tags is the potential for tags to get caught, leading to ear damage and possible infection. In some cases, a torn ear can affect the animal's appearance and market value. To mitigate these issues, use small and neat tags. Ear tagging is often used for initial identification and the procedure involves the following steps:

1. Disinfect the tag and applicator.
2. Write the identification number on the tag before attaching it.
3. Secure the animal in a standing position.
4. Clean the ear with methylated spirit.
5. Attach the tag to the ear using the applicator, taking care to avoid ear veins

### **Disbudding and Dehorning**

Disbudding and dehorning should be performed within a specific timeframe for male and female kids. Male kids should undergo the process between two to five days old, while female kids can be done up to 12 days old. To begin, the hair around the horn-bud should be clipped and petroleum jelly applied to protect the area from caustic soda or potash. These substances should be carefully rubbed onto the bud until it becomes well blistered, taking care to avoid contact with the eyes. Alternatively, an electric dehorner can be used safely, ensuring the kid's muzzle is gently muzzled to allow for free

breathing. For mature goats, dehorning can be done by sawing off the horns close to the head using a meat saw. It is best to perform this procedure during winter when flies are less of a concern. After dehorning, it is important to dress the wound appropriately (Marquette *et al*, 2023).

### **Castration**

Male goats intended for meat production are often castrated to prevent breeding. The preferred time for castration is when bucks reach six months old, using emasculator or torsion forceps. Castrating at this stage minimizes the risk of infection. Castration also improves the quality of the adult buck's meat. A castrated male goat is referred to as a wether. Another closed method of castration done by using burdizzo castrator the cord of side of scrotum & then clamp the castrator above the testicles, where it held for few seconds. Takes around 6 weeks to complete atrophy of testicles

### **Conclusions**

Goat Farming Management involves a knowledge coupled with skills and a proactive attitude. Good nutrition, healthcare and an appropriate environment right from birth to weaning will make robust and resilient kids who will be fit for work as adults. Successful goat kid management requires vigilant observation, timely intervention and a pro-active approach towards prevention of future problems. Such management practices like colostrum feeding, control of parasites and quality housing should be administered by the goats' keeper for stout health kids.

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