

## Mineral supplements

Salt or sodium chloride is the most common mineral. Other mineral sources include limestone or calcium carbonate and dicalcium phosphate. Minerals should be added carefully to the feed as excesses can be toxic (poisonous) to the goat. Some minerals, for example, selenium, copper, magnesium and cobalt are best fed as salt blocks or mixed into the grain ration or into a complete diet as the goat may eat too much of them if fed free-choice in the form of loose salt. A **cattle-type trace mineralized salt** should always be available to goats.



Water is essential for goats in all stages of development.

## Nutrition *of* Kids

**Feeding of colostrum to the kid is essential.** Colostrum is the first milk produced after kidding or parturition. It contains a high content of immunoglobulins or antibodies, vitamins, minerals and energy. Antibodies are proteins which help the body fight diseases. As the amount of antibodies in the colostrum decreases rapidly after parturition, kids should receive milk produced in the first 12 hours after kidding.

The kid's ability to resist disease is greatly affected by the quality and quantity of the colostrum and the timing of the colostrum intake. The producer must be certain that all newborn kids get colostrum soon after birth. The kid's ability to absorb antibodies in the colostrum decreases rapidly after parturition. Therefore, newborn kids should receive

colostrum in the first 12 hours after birth. It is a good idea to freeze good quality colostrum from an older, healthy doe in small amounts (4-6 ounces) for later use in case a doe dies or a kid cannot nurse her. Frozen colostrum should be thawed at approximately 100-120°F and fed at about 100°F; boiling will coagulate the protein forming the antibodies.

Most kids from does of meat goats will nurse the doe until weaned at 2 to 6 months of age. However, a doe may not produce enough milk for her young throughout her lactation, especially if she is raising more than one kid. To ensure adequate daily gain, free choice starter and high quality hay should be available to kids from birth. The transition from milk to concentrate at weaning is made easier when the kids can

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recognize the feed. Table 3 contains examples of feeds for kids. If milk replacers are used, they should contain not less than 5 percent fat, at least 20 percent crude protein and be made from milk protein and not from soybean or fish products. Usually, high quality cow milk replacers are less expensive than goat milk replacers and can provide good nutrition to the kid.

**Table 3. Samples of a complete ration for starter and growing goat kids (The et al., 1985; Sahu et al., 1992)**

Feedstuff	Kid Starter %	Growing Ration %	Feedstuff	Kid Starter (% dry matter basis)
Corn	27.6	12.9	Ground corn	70.17
Crimped oats	37.9	10.0	Crimped oats	2.00
Soybean meal (44%)	10.0	8.6	Soybean meal (44%)	24.00
Alfalfa leaf meal	18.0	10.0	Alfalfa meal	2.00
Cane molasses	5.0	5.0	Calcium carbonate	0.81
Cottonseed hulls	0.0	51.9	Dicalcium phosphate	0.37
Trace mineral salt	1.0	1.0	Trace mineral salt*	0.45
Limestone	0.3	0.4	Vit. A, D and E (premix)**	0.2
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Crude Protein = 20%

Calcium = 0.6%

Metabolizable Energy, Mcal/kg = 3.06

Phosphorus = 0.5%

\* Composition: 98% common salt (NaCl), 0.35% zinc, 0.28 manganese, 0.175% iron, 0.035% copper, 0.007% iodine and 0.008% cobalt

\*\* Contains (per 2.2 lbs): 6600 International Units (IU) of vitamin A, 2200 IU of vitamin D and 33 IU of vitamin E.



Creep feeding increases the growth rate of young goats.



The nutrition of the mother affects milk production for the kids.



Mineral feeders, such as the one above, allows goats to obtain salt and other minor nutrients essential for proper metabolism.



Flushing ewes or ewe kids before and during breeding increases the number of kids born.