

# Goats – Technical Note

## Feeding Goats in Late Pregnancy

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The latter stages of pregnancy are often considered the non-productive part of the milk production system. However, correct goat nutrition in the last few weeks of pregnancy is vitally important to ensure doe and kid health and maintain performance.

### Extra Nutrition is required to;

- support foetal growth.
- support mammary tissue development.
- prevent pregnancy toxaemia (ketosis) and milk fever.
- ensure the birth of strong, healthy, kids of moderate birth weight.

### A Note on Body Condition

Body condition is central to determining subsequent health, productive and reproductive performance. Although condition scores can be slightly lower than cows or ewes at the same stage of pregnancy (as goats have relatively more internal than external fat), it should still be a minimum of 3 when the doe is kidding. Feed intake increases for the first 6-8 weeks after kidding but for much of this time the doe is 'milking off her back' – using body reserves to fuel milk production. Thin does have much lower body reserves and as a result lower milk yields. They are also slower to resume cycling and more difficult to get back in kid.

### Energy

The highest energy requirement time for a doe is in late pregnancy and can be almost twice the goat's maintenance level. It is the nutrient most likely to be deficient. Too little



energy can result in a breakdown of body fat and result of ketones – known as pregnancy toxaemia or ketosis. Severe cases can result in the death of both the doe and kids. Proper feeding of does at this stage of pregnancy can avoid this.

### Protein

Protein deficiency in late pregnancy has a greater impact on birth weights than energy deficiency. Does can withstand short periods of under nutrition due to body and placental reserves but prolonged duration should be avoided. Once the goat's reserves have been depleted it will negatively affect subsequent colostrum production, kid viability and lactation performance. It is important to remember that there are two types of protein – Rumen Degradable Protein (RDP) and Digestible Undegradable Protein (DUP). RDP is broken down and used by bugs in the stomach, but little of it is utilised by the animal. It also can use up vital energy. DUP passes through the rumen and is digested in the small intestine. It is DUP that is most important for both quality and quantity of colostrum. The best source of DUP is soyabean meal

so examine your feed docket to ensure it is included in the formulation. Alternatively a small quantity can be sprinkled on top of the existing concentrate being fed.

### Forage

High quality forage is extremely important for pregnant does. It reduces the requirement for expensive concentrates and helps keep intakes high. Poor quality silage takes longer to break down in the rumen and contains much less nutrients. Silage should always be analysed to ascertain its quality and specifically formulate the concentrates required for adequate nutrition. Without silage analysis there is a high risk of under-nutrition or, in the case of high quality silage, concentrates could be fed unnecessarily resulting in high feed costs.

### Concentrates

The intake capacity of a doe drops by 10% during the last month of pregnancy as the kid increasingly takes up space in the abdomen. At the same time almost two-thirds of foetal growth along with significant mammary development occurs. Even when silage is of excellent quality it cannot supply all necessary nutrients as intake is restricted. It is all the more important to introduce or increase the level of concentrate to make up this shortfall in intake and increase the nutrient density of the diet. Obviously any dietary changes should be introduced gradually to reduce rumen upset and minimise stress. A good rule of thumb is to feed a minimum of 1% of the goat's body weight in concentrates, though thin goats will require more. Always err on the side of caution when feeding concentrates (except with does scanned with singles) as this will ensure high levels of nutrition.

Guideline figures for concentrate feeding in the last 4 weeks of pregnancy (based on an 18% protein ration).

Silage Quality	kg
Excellent (75% DMD)	0.6
Good (70% DMD)	0.7
Moderate (65% DMD)	0.8
Poor (60% DMD)/Hay	1.0

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