Feeding the Lactating Doe

It is important to feed your animals according their current stage of production to ensure they receive adequate nutrition, feed is not wasted, and animals are not overfattened. The lactating doe has the greatest requirements for nutrients than at any other time during her lifecycle. If not properly managed, she can be handicapped in early lactation when she is producing the most milk. In general, milk production peaks about 5-6 weeks after kidding, but feed intake (or how much she can consume) doesn't peak until two weeks later. Thus, an energy deficiency is created and the doe must convert body tissue to energy, resulting in a weight loss. By 8-9 weeks after kidding, milk production declines as part of the natural lactation curve and so the doe no longer has to lose weight. At this point, feed intake declines much less rapidly than lactation, enabling the doe to regain her body condition over the next 3 weeks.

Know What Your Feeding

Before we can feed the lactating doe, we need to know the protein and energy of the feed, hay or pasture that we have available. As mentioned above, the doe needs to consume a lot of nutrients at this time, so the risks of not knowing what you are feeding are too severe. For example, poor forage severely limits overall feed intake, and feeding too much grain can result in acidosis especially if the animal is not consuming sufficient hay.

Feed

For the feed, we can read the feed tag and find out how much protein is in the feed mix. The feed needs at least 14% crude protein, often abbreviated CP, but would prefer 16% CP.

[To learn how to read a feed label, view the *HoofPrint* Winter 2017 Volume 26]

Energy

Generally, the energy level of the feed is not on the label, but can be found out by contacting the feed manufacturer. You want the feed to have a Total Digestible Nutrients (TDN) of at least 70%.

Forage- Hay and Pasture

Forage, whether hay or pasture, does not come with a feed tag. Forage quality is a term that not only includes protein and energy, but also such characteristics as leafiness, softness of stems, smell and freedom from mold, which are all factors that may affect forage intake. Forage quality, especially the protein and energy levels, determine how much supplemental feed is needed. . Optimum forage would be at least 9% crude protein and have a TDN of at least 54%. If the forage is not up to these values, additional supplementation will be required.

Example: A few forages such as ryegrass or wheat pasture are high enough in forage quality for late lactation animals whereas other forages (mature bermudagrass or fescue) are so low in forage quality that grain supplementation would even be needed for a dry doe.

Hay

Generally, hay is priced according to quality, cutting number, forage species, fertilization, type of bale and naiveté of the buyer. The buyer needs to evaluate the quality of hay that is purchased using a forage analysis. Your county extension educator can help you understand the result of a forage analysis.

[To learn more about hay evaluation, view *HoofPrint* Spring 2017 Volume 27]

Pasture

Visual evaluation of pasture quality is similar to visual evaluation of hay quality. There should be a predominance of leaves as compared to stems, few or no seedheads, and a green color for good nutritious forage. Pasture that is vegetative (rapidly growing) is the highest quality. Please remember that one deficiency of chemical analysis of pasture forage is that forage is cut near ground level and includes all leaves and stems. Goats select predominantly leaves first which are high in quality and leave stems (low in quality) minimally grazed. Thus, results from a forage analysis will show a lower nutrient quality than what the goats are consuming unless they are forced to consume the stems by having a limited amount of forage available. Secondly, goats also skip grazing plants that they do not like, thus animals will consume more of a high quality hay than a low quality one. If pasture is over 14% CP and over 60% TDN, supplementation may not be required. The level of supplementation also needs to be adjusted based on changes in body condition as well as individuality of goats because it is difficult to predict how much hay or pasture a goat will eat. Monitor body condition and reduce feed when the doe gets over a body condition score of 3.5.

A FREE RESOURCE TO HELP YOU LEARN MORE ABOUT VISUAL AND CHEMICAL FORAGE ANALYSIS

https://extension.psu.edu/determining-forage-quality-understanding-feed-analysis, https://extension.tennessee.edu/publications/Documents/SP437-A.pdf.

Is Knowing What I'm Feeding Really that Important?

As we said earlier, the level of supplementation depends on forage quality. If a doe is on early summer range or early growth fescue, she would require a similar amount (2-2.5 lbs) of supplementation as for a medium quality hay. Most likely, since the doe is consuming mostly leaves, she would be able to get by on less than this amount of supplementation. If the doe were grazing wheat pasture, she would only require a pound of supplemental feed. Actually, since wheat pasture is high in protein, we could use whole shelled corn as the supplement. If she is grazing orchardgrass, the doe will only need 1.0 lb of supplement, whole shelled corn will be adequate also.

However, if we feed a poor quality forage such as mature range, mature bermudagrass, full bloom-timothy, wheat straw or corn stover, even if we feed 3 lbs of supplement, we cannot fully meet the nutrient demand and they will only be able to consume 2 lbs of forage and we will have some risk for acidosis and enterotoxemia. This shows how important forage quality is for the lactating doe.

Overcoming Challenges of Feeding the Lactating Doe

Determining the amount of supplementation to feed a doe has some major challenges.

1. The biggest problem faced when determining the amount of supplementation needed is that there is very little and very poor data on milk production in meat goats, which affects nutrient needs. So, there is no tried and true determination of supplement levels amongst breeds to use as reference. Meaning, we have to figure it out on our own.
2. Secondly, every producer knows that some does milk better than others. A doe raising twins produces about 50% more milk than a doe raising a single kid, and a doe raising triplets or quads produces about 75% more milk than a doe raising a single. Generally, we aim to feed does as though they were raising twins since most goat producers average close to twins.

Tools of the Trade

- Basically, supplying the doe with 2 - 2.5 lbs of 16% goat feed and 3.5 lbs of good quality hay (10% protein and 56% TDN) can meet her requirements for lactation if she is feeding twins. Generally, the problem is that goats cannot consume this amount of feed in early lactation necessary to meet the nutrient demand for milk production, so they will lose some weight. This is why does need to have a body condition score greater than 3 before kidding (3.5 to 4 is best).
- Since she is not be able to consume adequate feed until she is 6 - 8 weeks into lactation, she will lose weight, especially the first 4-6 weeks. This is the only time a doe should be in a body condition less than a 3.
- If a doe has triplets, she would need 2.75 lbs of a 16% goat feed and 2.75 lbs of hay. You must limit her grain to no more than the amount of hay she is consuming. When a doe consumes much more grain than hay, she will be at greater risk for acidosis and enterotoxemia.
- Research has shown that vaccination for enterotoxemia in goats does not provide good protection against enterotoxemia in goats for as long as in sheep. The doe should have been vaccinated the last month of gestation to provide a high level of antibodies in the colostrum to protect her kids as well as protecting the doe when she is consuming a high level of grain while lactating.
- Goats should always have a free-choice loose mineral available at all times to provide for their mineral and vitamin needs. The mineral needs to be replaced frequently so that it is attractive for goats to consume. Your county extension educator or livestock specialist should be able to help you select a goat mineral. Just tell him to pretend it is a cattle mineral. If certain minerals in an area are deficient for cattle, they will also be deficient for goats. Another problem is that goats are unable to read the mineral bag to know how much mineral they should be consuming. Monitor consumption by calculating how long a bag of mineral should last. If animals are not eating sufficient mineral, dried molasses or soybean meal can be mixed in the mineral to increase consumption. Mineral and vitamins status can be assessed by blood tests, but liver analysis is the best for most minerals. When an animal dies, a piece of liver the size of two fingers can be taken and frozen until submitted to the Michigan Diagnostic lab for analysis (they have one of the best analytical procedures for liver minerals).

Conclusion

Taking care of the nutritional needs of your goats will enable them to produce their best and have fewer health and parasite problems. They will produce better quality and heavier kids at weaning time, and goat raising will be more fun.

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