

Supplementing Pasture For Dairy Cows

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Pastures are a great asset on dairy farms in Arkansas. During the early growth stage, the pasture provides an excellent source of protein. Indeed, well-fertilized grasses or grass-legume mixtures should contain well over 20% protein. How should this excellent resource be utilized to the greatest advantage? Two topics should be considered to optimally use pasture for dairy cows.

First, the combination of stocking rate and pasture rotation are important. The herbage available depends on these factors. Depending on the type of pasture, cows can consume the most dry matter while grazing ryegrass, bermudagrass or fescue if the plants are 8 inches tall (summer annuals, such as pearl millet or sudangrass, must be taller than this before grazing). Then, cows should be removed when the stubble height is only 3 to 4 inches tall (6 to 8 inches tall for summer annuals) and offered another pasture that has had opportunity for regrowth.

Clipping of pasture may be helpful to permit uniform regrowth. The time for regrowth permits pastures to regain the optimum height for grazing, but it also permits the plants to establish strong root reserves.

Obviously, the number of cows per acre will determine how long grazing can occur before rotation. If continuous grazing is practiced, the minimum stubble height should be much higher – perhaps as much as 50% taller – to maintain

root reserves.

The second topic is supplementation. Dairy cows need a readily available energy source along with pasture. In Florida, a “winter” experiment was conducted with ryegrass/clover pastures. Increasing the grain mixture from 1 pound for 3.5 pounds of milk produced to 1 pound of grain for 2.5 pounds of milk produced caused a decrease in forage intake, and milk yield remained at about 44 lb/day.

Overstocking was a greater factor because dry matter intake of pasture was reduced as much as 8 lb/day per cow when additional supplement was fed, and milk yield decreased. If pasture were limited or if grain were inexpensive, this might be profitable. Thus, it would seem that the old “rule of thumb” still holds: provide 1 pound of supplement mixture for every 4 pounds of milk for Holsteins. For Jerseys, or other cows with higher fat and protein in milk, the supplementation rate should be 1 pound of grain for 3 pounds of milk. By-products that contain readily digested fiber, such as soybean hulls and whole cottonseed, may fit better with high-protein pastures than starchy feeds such as corn – which works well with lower quality pastures.

Pastures are a great resource in Arkansas, but quality of the forage changes with the season. Flexibility is needed in stocking rate and in providing supplementation. Δ

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