



Cattle Producer's Handbook

Range and Pasture Section

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Pasture Management and Problems While Grazing

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Forage crops provide 54 percent of the feed consumed by livestock in the United States. Pastures furnish 36 percent, harvested forages contribute 18 percent, and the balance of livestock feed is obtained from concentrate feed including grain and protein supplements.

As expected, the importance of each kind of feed varies with the type of livestock. Sheep and goats obtain greater than 80 percent of their nutrition from forage, while 73 percent of beef cattle nutrition is from forages. Forages make up 51 percent of horses' diet. New and changing management practices in the dairy industry allow forage to be anywhere from 20 to 80 percent of a cow's diet at any time in her life. Lengthening the grazing season by using practices such as stockpiling forage or planting annuals for forage can greatly reduce production costs for a wide variety of livestock species. To be profitable, producers have an increased dependency on forages, grazing, and pastures.

Pastures can be useful sources of forage on property that is unsuitable for other crops. The amount of pasture needed depends on pasture quality, animal size, and type, season, and species of forage in the pasture. Early spring growth from half of one acre may be adequate to feed young heifers, dry cows, low milk producers, or beef stockers. July and August heat may depress forage growth to a level where 50 percent more acreage is needed to feed the same animal.

The ideal rotational grazing system consists of 1 to 2 days of grazing with 20 to 30 days of rest for each field or paddock. This requires 16 to 20 paddocks and will provide high-quality pasture needed by growing animals and dairy cows. Ideally, intensive grazing closely resembles the harvesting of hay and is thus close to ideal for forage plant physiology. A less intensive grazing system consists

of 5 to 10 days of grazing with the same 20- to 30-day rest period for the paddock. This less intensive system will not maximize paddock production but will lower the management level and provide adequate quality forage for beef cows, dry cows, and stocker cattle.

It is recommended to not graze below the 2- or 3-inch level at any time during the growing season. It also should be noted that the plant physiology calendar year starts in the fall (September in the Pacific Northwest). Any stress or overgrazing that occurs at this time of year will be detrimental to the following year's production. It is recommended that phosphorus and sulfur levels be checked via soil sampling in August, and fertilizing, if needed, be accomplished in early September.

The second critical time in plant physiology to be considered during grazing management is when the average high air temperature (subtract the 24 hour minimum from the 24 hour maximum) becomes 43 degrees each spring. At approximately 43°F the grasses and other forages activate or wake up from winter dormancy. From this point until the forage population or sward reaches and exceeds approximately 10 inches in height, grazing should be either prohibited at best or at least limited.

When managing grazing, care must be taken to not overgraze. Physiologically, it takes a forage plant an equal number of rest days to grow from 2 to 4 inches in height as it does for the same plant to grow from 4 to 8 inches in height. Belated removal of animals from a paddock in an intensively managed grazing system is a major obstacle and will cause the system to fail. Animal removal at a 4- to 6-inch forage height speeds paddock rest rotation, decreases animal parasite load, increases forage quantity, and greatly increases quality.