

GRAZING MANAGEMENT Dr. Marvin H. Hall Penn State

Grazing management involves the control of grazing animals on pasture. The two most important tools for influencing the level of animal output under grazing are concentration of animals per acre (stocking rate) and the system of grazing management (which will be discussed in a subsequent article).

Grazing Pressure And Stocking Rate

The closeness to which a pasture is grazed is defined as grazing pressure. Grazing pressure is affected by both stocking rate (animals per acre) and available forage (pounds of forage per acre).

High grazing pressure causes close grazing and short pasture stubble. Animal performance is reduced because animals are forced to consume all portions of the pasture, including the poorer quality forage. Excessively high grazing pressure results in overgrazing.

Low grazing pressure refers to selective grazing, with unlimited forage available to animals (Figure 1). Animal production rates (gain per head per day, etc.) will usually be high at low grazing pressure. Very low grazing pressure, or under grazing, results in wasted forage and consequent poor animal production per acre.

An optimum grazing pressure is one in which available forage

matches animal needs — this would be analogous to the quantity of forage offered daily to animals in confinement when rations are balanced. In order to maintain an optimum grazing pressure, it is important to adjust stocking rate so that available forage is maintained within an optimum range.

Available forage not only influences stocking rate, but can also affect dry matter intake. As the amount of forage decreases, intake per animal decreases. Reduction of available forage from 1000 to 500 pounds per acre has been shown to reduce average intake by almost 40 percent. For optimum grazing, available pasture should be maintained at 1,000 to 1,500 pounds of dry matter per acre. On average, a 3- to 4-inch bluegrass/white clover sward will have about 1,000 pounds of dry matter per acre. In tall grasses and legumes, this may be about 6 to 8 inches high.

Unfortunately, not all available forage in a pasture is utilized. Some of the forage will be trampled or fouled by urine or manure and remain uneaten. The amount of available forage which is consumed is called utilized forage. At high grazing pressures, animals are forced to consume more of the available forage resulting in a relatively high (grea-

High Output/Head

Output/Acre

Medium

Low

Available Pasture

High Medium Low V. Low

Neg Low Medium High V. High

Stocking Rate

Figure 1. Effect of grazing pressure on production per animal and per acre.

ter than 80-percent) utilization rate. At low grazing pressures the animals will refuse to eat portions of the forage thus decreasing the utilization rate. As the length of the grazing period increases (lower grazing pressure), the percent utilization decreases.

Grazing pressure will not only affect animal performance, but will also affect the plant species in a pasture. Long periods of low grazing pressure commonly cause loss of legumes from the stand. At the other extreme, long periods of high grazing pressure can result in a temporary or long-term decrease in pasture production. High to excessive grazing pressure for

long periods with little or no opportunity for selective grazing will also cause low animal intake and low gain rates.

Short periods of high grazing pressure can serve useful purposes. One to 2 weeks at high grazing pressure, three or four times through the grazing season, can help maintain legumes in the stand and utilize forage that might otherwise be wasted. It is important not to expose lactating cows or growing animals (calves, yearlings, and lambs) to long periods of high grazing pressure. Beef cows and ewes can tolerate high grazing pressure after breeding.

Ag Tech Day Set

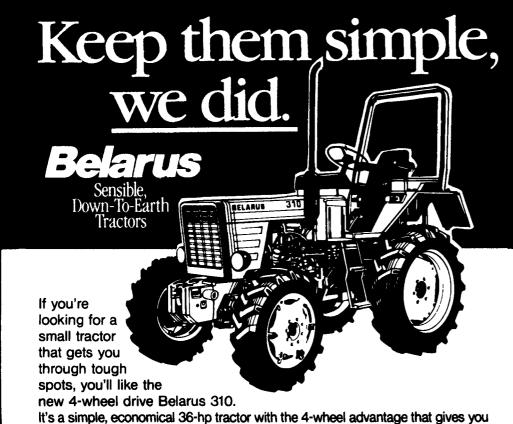
GREENSBURG (Westmoreland Co.) — The Westmoreland Agricultural Fair, Penn State University, and Westmoreland County Cooperative Extension Service announce the second Southwest Pennsylvania Ag Technology Day on Thursday, August 26.

Last year, 23 commercial exhibitors participated and, even though it rained, farmers from Fayette, Indiana, Somerset, Wash-

Horse Barns

ington, and Westmoreland counties attended. Both exhibitors and farmers thought it a worthy event.

Time for agribusiness exhibitors to make short presentations to the group assembled is allotted. Ag Technology Day is held in conjunction with the Westmoreland Fair, a short distance from the main fair activities. Farmers pay no admission to participate in Ag Technology Day.



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