

## Alfalfa cutting - digestibility, timing, weeds, fertility

DEKALB, II. — Ask alfalfa experts what management practice affects alfalfa quality and yield the most, and they'll probably say the timing of cuttings.

"Alfalfa produces its highest quality when cut in the late bud stage before any flowers appear," states Greg Jones, Regional Agronomist for DEKALB-PFIZER GENETICS.

"Crude protein is at its highest level, while new fiber percent is at a low level," Jones says. "As maturity advances beyond the late bud stage, crude protein percent decreases, while fiber concentration increases. Keep in mind, the leaves are where the quality is. You want to harvest a fine-stemmed, leafy plant."

Providing top-level management after you've established a stand from high-quality alfalfa seed pays dividends in the end, Jones emphasizes. Feed value increases with proper fertilization, weed

control and the right harvest schedule—especially that all-important first cutting.

Dr. Sidney Bosworth, Extension Agronomist, Pennsylvania State University, and Dr. Dwayne Rohweder, Extension Agronomist, University of Wisconsin, agree wholeheartedly.

Bosworth says, "The very first cutting ties it all together—yield, quality and persistence of stand for the rest of the season." By hitting that late bud stage correctly, he adds, you should be rewarded with potentially higher yields, 20 percent or more crude protein levels, acid detergent fiber (ADF) levels below 35 percent and neutral detergent fiber (NDF) levels below 40 percent.

### Digestibility

Good digestibility readings are important for many reasons, especially for their positive effect on your profitability.

High-quality alfalfa harvested correctly can save dollars by

reducing protein supplement purchases; and at the same time, it can help producers get a few more pounds of milk per cow or better gains from feeder cattle.

For example, researchers estimate that increasing crude protein levels by 3 percent or 4 percent can increase the value of your alfalfa by as much as 25 percent. Crude protein measures the protein most available to the animal when a feedstuff is digested, and high levels are desirable.

Acid detergent fiber represents the undigestible components of feed, such as heat-damaged protein, cellulose, lignin and silica. As alfalfa matures, ADF concentration increases. When ADF is high (above 35 percent), it takes animals longer to digest feed, and less energy is available for other body functions.

Neutral detergent fiber is a measure of the cell wall material or structural fiber concentration in

feed. As alfalfa matures, NDF also increases. The higher the NDF, the lower the intake and nutrient availability. NDF of 40 percent or less is desirable.

In addition to increasing digestibility, proper timing of the first cutting can boost total yields as well.

"Cutting alfalfa in the late bud stage often improves annual yield potential," Jones says. "Although the yield per cutting is usually less, an extra cutting is often possible, resulting in a net increase in total yield."

### Fertility, Weed Control

Of course, there is more to raising good alfalfa than just cutting it at the right time. For example, Rohweder advises most Wisconsin alfalfa producers to follow a fertility maintenance program of applying 100 pounds of 0-11-55 fertilizer per ton of yield goal. He recommends applying one-half of it after the first cutting

and the other half after the last cutting.

Jones says that controlling weeds in alfalfa helps prolong stand life and improves forage quality. Although established alfalfa can compete effectively with weeds, most weeds are less palatable and lower in protein than alfalfa. Eliminating weeds through use of herbicides can increase protein levels, digestibility and consumption of alfalfa forage.

### Timing

Bosworth warns against pushing the alfalfa too hard. "I'd be wary of continuously cutting at too short intervals," he comments.

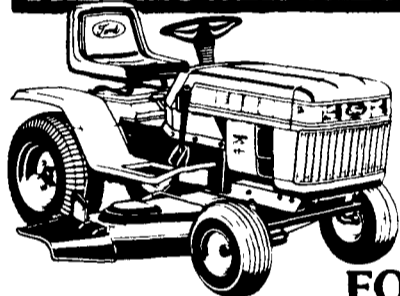
Greg Jones agrees. "You need to allow regrowth time to get the plant's food reserves built up," he says. "After the first cut, a 35-day interval will keep the plant healthier and help it survive a rugged winter." Jones adds that the productive life of a stand is often reduced to three or four years under intense cutting.

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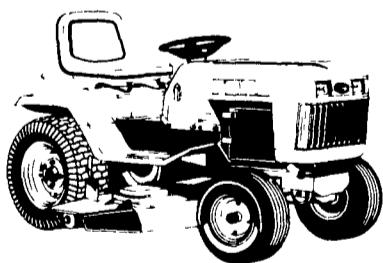
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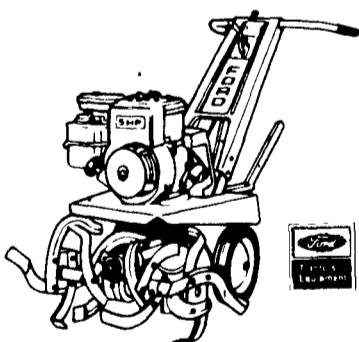
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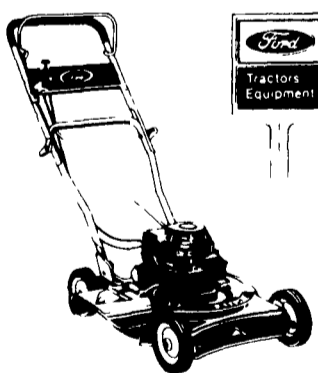


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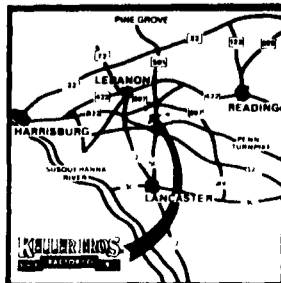
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