

## GRAZING ALFALFA—NATIONAL PERSPECTIVE

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The production of alfalfa specifically for grazing is a fairly new practice. But now, farmers all around the USA are beginning to look toward alfalfa for a long living legume to increase yield, quality, and reliability all during the growing and grazing seasons. They also are looking for ways to reduce the cost of harvest, equipment, and storage costs, as well as weather-related harvest losses, and in time, reduced fertilizer costs.

With the advent of the new multi-use variety-type alfalfa known as Alfagraze, interest in using this legume is mushrooming all across the country. The big surprise area includes traditionally stored feed only feeding areas such as Wisconsin, Michigan, Minnesota, Illinois, Pennsylvania, and Ohio. In those same states, the dairy industry is moving cautiously into quite a switch to seasonal dairying as opposed to year-around dairying in an effort to reduce costs including feeds, labor, and housing. Farmers who are most interested in alfalfa for grazing are:

- Dairymen who want to cut milk production costs during the grazing season. The attraction areas show up in the northeast, upper midwest, and upper south.
- Beef stockers who want quality grazing for consistent higher gains from late spring to fall. Big interests are found in Kentucky, Tennessee, Illinois, Ohio, Virginia, Missouri, and Iowa.
- Beef cow-calf producers who want better conception rates, higher weaning weights, and higher carrying capacity with year to year reliability. Most of this interest is in the upper south and lower midwestern states.
- Sheep producers who want a reliable source of high quality forage for finishing lambs. Most of this interest is found in Oklahoma, Kansas, Texas, and Colorado with sporadic interest in the upper midwestern states.

The grazing "bug" is of major scope in regions with an annual rainfall of 30 inches or more. We are beginning to see considerable interest in arid areas where irrigation is established.

There are two major problems that bother farmers when grazing alfalfa: bloat and stand persistence. Bloat reduction is being dealt with mainly in three ways:

- 1) Put hungry animals on lush alfalfa pasture only after a prefill with dry hay and/or bunk feed. And even then, put animals onto pastures for short periods initially.
- 2) Watch cattle carefully on cool-wet days. This lush forage will greatly increase

consumption thus bloat potential. 3) Use poloxalene either in the bunk-feed mix or in mineral mix according to recommendations which includes a few days feeding ahead of field entry. Most successful graziers keep dry hay free-choice all the time livestock are grazing, for "peace of mind" and additional production from animals.

Stand failure due to grazing is fast fading with the release of the new grazing tramping resistant-type named **Alfagraze**. This introduction came into the market place on a large scale in 1992. To date, it has been seeded in over 40 states mainly for grazing. Because of high yields when mechanically harvested, it is also used for hay and silage when not needed as grazing.

### **A brief description of Alfagraze**

This variety (type), the first of its type to come along but to be followed in a few years by many more, was developed at the University of Georgia by Dr. Joe Bouton. The development was most unique in that it was formed from an original germplasm base of 1100 USDA plant introductions and 22 currently used varieties. The original nursery was established in 1978. The next three summers, it was grazed continuously (May-September). The best surviving plants were selected and intermated. Their offspring were then planted into another grazing paddock where they were grazed for two years. Due to high mortality during the second cycle, only 32 plants survived. These 32 plants became the parents of Alfagraze. So from a beginning of about 3.5 million plants then 2.5 million plants in the second cycle (an estimated seven million plants to start), 32 survived!

Testing of Alfagraze began in 1986 with the first of what was to become five small plot grazing experiments where persistence and yield was evaluated against the best hay and grazing varieties on the market. The experiments ran for two to four years. All were continuously grazed for at least 140 days each year. The data was clear: intense grazing thinned stands and reduced productivity of all varieties except Alfagraze.

This research was expanded beginning in the fall of 1988 when large scale animal performance trials (replicated) were seeded to compare Alfagraze with a popularly used hay type variety. These fields were continuously grazed at varying stocking rates for 140 days each year for three years. Alfagraze produced average gains of 2.2 pounds per day and 530 pounds of gain per acres plus 1.5 tons of hay made from the first cut. At the end of these trials, Alfagraze stands retained excellent ground cover with little intrusion of native grasses and weeds while the hay-type variety stand was less than 50% and obviously a great increase of native grasses.

When we were rewarded the exclusive rights for this variety, I wanted to see just how well a Georgia originating variety would survive and produce for farmers outside the development area. After three original seedings (Kentucky, Tennessee, and Alabama) the first year, farmer grown demonstrations have spread to 26 states and 44 locations. Most of them are located at beef and dairy operations. Some of the

farmers keep excellent records and have found to their amazement some dazzling rewards. Dane Mercer of Sweetwater Tennessee has shown replacement feed value of \$600 to \$700 per acre per year for three years in his dairy herd while maintaining a 20,500 lb rolling herd average. John Elliott has averaged 2.0 to 2.25 pounds of gain on beef stockers in mid summer in 1990 and 1991 while harvesting over 7000 pounds of hay per acre. He had similar results in 1992 but records are not in at the time of this writing. Other demonstrators will be making similar reports as they have more experience.

To answer our first questions, persistence is great and yields are higher than anticipated from southern Alabama to Minnesota and the west coast to Pennsylvania.

At present, as we stated earlier, Alfagraze is the only true multi-use grazing alfalfa that was developed solely with grazing livestock, that will tolerate intensive grazing and treading and still yield well when harvested mechanically. But there will be others in a few years. When this happens, farmers will find that keeping reliable stands under grazing is easy, and while rotational grazing will produce highest yields and gains it is not going to be necessary to rotate to keep a stand over an extended period of time. When selecting varieties to use for grazing, hay and silage data will be supplied showing a great place for this type on most every livestock producing farm.

In the meanwhile, grazing on hay-type alfalfas is continuing through the areas we mentioned earlier. No-till, minimum-till, sod-seeding, and renovating alfalfa into grass sods is gaining in momentum, especially in the upper south.

With the introduction of light-weight, movable (electric) fencing, rotation grazing is growing rapidly. With hay types, the closer farmers can follow simulated hay-silage harvests with grazing, the better their chances for maintaining stands and top performance over a longer period.

Alfalfa acreage for grazing is increasing and will continue to increase for years to come throughout America. Kentucky is again in the middle of another big advancement in forage production and utilization and is sure to help lead the way for it's further advancements.