THE GRAZIER

Alfagraze Discovery Earns Award

Alfagraze, a new unique dual-purpose alfalfa, has now been recognized as an innovative discovery.

Joseph H. Bouton recently received the prestigious Inventor's Award from The University of Georgia Research Foundation for developing Alfagraze, an alfalfa variety bred to be both hayed and grazed.

Marketed by America's Alfalfa™ in Shawnee Mission, Kan., Alfagraze was developed and tested for 12 years by Bouton and his researchers from The University of Georgia to find a grazing-tolerant variety.

Bouton, professor of crop and soil sciences, is only the third recipient of the Inventor's Award, established to "recognize an inventor for a unique, creative and innovative discovery that has made an impact on the community." Bouton says this award was especially meaningful because his invention of Alfagraze was singled out as an important and impactful invention among entries from all fields, including medical, industrial and others.

Certified under the Plant Variety Protection Act, Alfagraze is truly unique because of its upright growth and ability to maintain energy reserves in its roots and crown area for quick recovery, and its resistance to animal trampling.

'The Alfagraze energy pool is not excessively depleted during regrowth after grazing or cutting," Bouton explains. 'This trait prevents Alfagraze plants from becoming starved and weak during grazing, which often results in plant death."

Both researchers and marketers of Alfagraze were surprised by two additional features. "We are pleased by the wide geographic adaptation of Alfagraze and its exceptional winterhardiness," Bouton says. "It's been successful as far north as Minnesota and Wisconsin." Secondly Bouton says they were somewhat surprised by the proven top forage yield of Alfagraze. **In** university trials across the country, results show Alfagraze delivers yields equal to conventional hay-type varieties.

These unique characteristics — winterhardiness, high yield and ability to withstand intensive grazing pressure — make Alfagraze a good economic choice for growers. Dairy and beef producers alike have shown dramatic production increases and feed cost reduction by switching to Alfagraze.

Beneficial in pasture renovation, Alfagraze can also contribute to increased land values and greater productivity from existing grass pastures. Research by Carl Hoveland from The University of Georgia has shown impressive results from drilling Alfagraze into fescue, orchardgrass or Bermudagrass.

"Our results have shown that livestock producers can double the average daily gain of steers when grazing this quality forage mix, compared to grazing Bermudagrass (2 pounds/day gain versus 1 pound/day)," says Hoveland.

Producers Showing Interest In Summer Annual Forages

Summer annual forages such as millet and sudangrass may be of use to some producers for forages in a wet year as the planting season progresses and planting options narrow.

Ed Twidwell, Extension forage specialist at South Dakota State University, sees some utility for these forages, in that they give options for hay, green-chop, late-summer pasture, or silage for winter feed,

"These annuals can be planted in mid-June and still produce an adequate amount of forage. The quality of these crops won't be as high as alfalfa, but they can still be successfully used for feeding most classes of livestock," Twidwell said.

Here are a few examples:

Foxtail Millet

One of the most popular annual forage crops is foxtail millet. It is a drought-tolerant crop, and makes a good hay crop. It is not well adapted for use as pasture because of its shallow rooting and slow regrowth characteristics. It is designed for cutting once for hay, and that is all.

Another characteristic of millet is that it can be seeded as late as mid-July and still produce some forage if precipitation is received. Foxtail millet makes a good choice for use in government set-aside programs that do not allow harvesting until after September 1.

Sudangrass

Sudangrass is a crop that offers flexibility because it can be used for pasture, hay, or silage. Sudangrass has faster regrowth than any of the millets or other sorghum species. It also has lower potential for prussic acid poisoning than other sorghum species. A good option when using sudangrass is to take the first cutting for hay at the heading stage, and then either take another cutting of hay or graze the regrowth.

Pearl Millet

A crop very similar to sudangrass in growth characteristics and yield potential is pearl millet. This crop is primarily grown in southern states such as Texas and Kansas, but it has been receiving more publicity in South Dakota in recent years. It should be managed in much the same manner as sudangrass.

Sorghum-Sudangrass

Sorghum-sudangrass hybrids are the most numerous of various types of sorghum. They are high-producing crops and are best suited for green chop or silage. They can be used for hay, but have relatively thick stems and are slow to cure.

Forage Sorghums

Forage sorghums are usually tall-growing and mature late in the growing season. This crop is best suited for silage. Grazing of forage sorghum is not recommended as the crop contains high levels of prussic acid. All of these sorghum crops should be planted during early through mid-June.

In evaluating these annual forages, there is no one crop that is "best" for all situations, Twidwell said.

"The selection of an annual crop depends upon whether priority should be placed on providing additional late summer pasture or whether the production of hay or silage for winter feed should receive the highest priority."

The type of harvesting equipment and storage facilities available are also a primary consideration, he added.

-South Dakota State University Ag Communications

Burning Improves Fescue Pasture Quality

University of Missouri forage researcher Betty Aulabaugh was rather impressed with her green fescue pasture after it had accidentally burned.

Checking the research, she was surprised to learn there were no studies on burning cool-season grasses. All of the burning experiments had been done on warm-season grasses.

Now after three years of burning fescue pastures on purpose, Aulabaugh has learned that careful use of fire can improve fescue quality.

Pastures burned in late winter or early spring grow grass with better digestibility. Also, tillering, or green shoots, increased.

At the MU Horticulture Research Center near New Franklin, Aulabaugh burned plots three separate times during the year Tall fescue was chosen as the cool-season grass for the study because it is grown on about five million acres in the state.

Her study reveals that when compared to unburned plots, the burned plots did not yield as much grass nor residue per acre. "However, green growth was greater on the burned plots. The burned plots put out more vegetative tillers," she says, improving nutrition.

With just one spring burn, Aulabaugh noticed an increase in plant diversity in the fescue pasture. Even though nothing was planted, seed already in the soil germinated and came into the pasture. The field had been in fescue for 25 years.

While there is little difference in performance between the late winter and the mid-spring burns, she found it much easier to burn the pasture plots in late winter. Mid-spring growth slows the fire.

In addition, too much burning or burning in mid-summer reduced the fescue stands. The mid-summer burn resulted in severe stand reductions with up to 70 percent bare soil during the fall and winter. Burning at that time is recommended only for pasture renovation when new forages will be seeded into the pasture.

Also, burning is not recommended for fescue to be harvested for seed because seed stems and seed production are reduced.

Aulabaugh recommends that anyone thinking of burning their pasture attend a Soil Conservation Service burn workshop before setting any fires. Before setting fires, she watches the weather reports, checking the wind and humidity, and notifies the local volunteer fire department.

Auburn Diagnostic Center Offers Fescue Toxicity Tests

The Auburn University Fescue Toxicity Diagnostic Center tests seed or plant tissue samples submitted by producers to determine levels of infestation of the fungus, Acremonium coenophialum.

There are several situations in which a livestock producer could use the testing service to advantage. First, it can be used to determine the presence (and, if present, the level of infestation) or absence of the fungus in an existing tall fescue pasture. This can be done by collecting plant samples from a pasture and submitting them for analysis.

An analysis for the fungus can also be performed on fescue seed. For example, a producer who is interested in buying or selling fescue seed and wants to know the level of fungus in that seed lot can submit a sample for analysis; the laboratory will report the approximate percentage of seed infected with the fungus.

Since the fungus is known to be primarily (or perhaps totally) seed transmitted, seed analysis prior to establishing a new pasture can help prevent the further establishment of infested fescue pastures. Testing seed also gives an indication of the level of fungus infestation in the field from which the seed were harvested.

However, Auburn University research has indicated that the best means of determining the fungus level in a pasture is to analyze plant tissue samples from that pasture.