Grazier

► by **Kindra Gordon**

Forage varieties offer opportunities

Shopping for new forage varieties to fill voids in your grazing program? You're in luck — new varieties are frequently developed to specifically suit early-season grazing, saline or other problem soils, and just about any scenario a beef producer can imagine. Here's a roundup of some helpful grass varieties and the solutions they offer.

A world of wheatgrasses

For early spring grazing, crested wheatgrass is always among the first to green up. Its forage quality often wanes quickly, however, causing it to fall out of favor with producers. Fortunately, newer varieties of crested wheatgrass address that issue.

Douglas crested wheatgrass, developed by Utah researchers and released a few years ago, is a variety that has broad leaves.

Kevin Jensen, research geneticist with the Agricultural Research Service (ARS) Forage and Range Research Laboratory in Logan, Utah, says, "Douglas doesn't have the drought resistance of some of the other crested varieties, but it retains its green color and has wide leaves. Those attributes can extend the grazing season three weeks." He says another benefit is that Douglas has excellent establishment vigor.

PHOTOS COURTESY OF USDA-ARS

►Seed will be available in spring 2004 for three new wheatgrass varieties, including Beefmaker, an intermediate wheatgrass that's high in protein and highly digestible.

Producers looking to get a head start on the grazing season can consider CD-II, a cross between Standard and Fairway crested wheatgrass varieties. CD-II offers improved leafiness and increased early spring growth, even during cold temperatures. Jensen says it is well-suited to harsh environments.

Vavilov is a Siberian wheatgrass variety that also offers early green-up, but it is suited to dry sites and establishes well in sandy soils with only 8-12 inches (in.) of annual rainfall. Jensen says it competes aggressively with weeds and works well on disturbed sites.

If salty soil is your forage challenge, NewHy is a hybrid wheatgrass that is more saline-tolerant than crested and intermediate wheatgrass. In addition to salt tolerance, it provides a tremendous amount of forage and retains forage quality late in the season, Jensen says. He reports that livestock also find NewHy more palatable than other salt-tolerant forages.

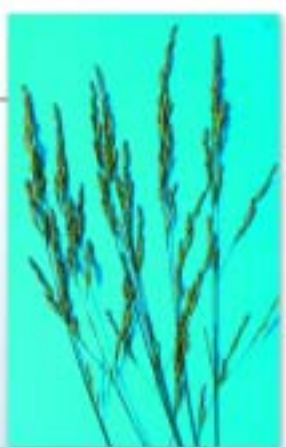
Surprisingly, the NewHy hybrid is a cross between quackgrass and bluebunch wheatgrass, but it is not as aggressive in spreading as quackgrass. NewHy yields an average of 3-4 tons of dry matter (DM) per acre, with forage quality as high as 17%-20% crude protein (CP) in early spring and tapering to about 7% in July and August.

Jensen says producers can double-crop NewHy and still graze it in the fall. He says it also stockpiles well as forage for winter grazing.

Another wheatgrass variety suited to problem soils, such as roadsides or washout areas, is a rhizomatous crested wheatgrass variety called RoadCrest. This variety won't produce a lot of forage, but it can establish just about anywhere and, it will provide erosion control.

Jensen suggests that if you are managing solid stands of crested wheatgrass, they should be grazed early in the season (May-June). With adequate regrowth, they could be grazed again in the fall. If you plan to use a pasture seeded with crested wheatgrass into late summer, it should be planted as a mix of crested wheatgrass with other forages.

Something to replace Kentucky-31



ArkPlus, a new variety of tall fescue developed at the University of Arkansas (UA) by Chuck West, could help beef producers in fescue country increase profits.

Unlike conventional tall-fescue cultivars that contain endophytes, which are toxic to cattle, ArkPlus was developed with "novel endophytes" that do not contain the toxin.

Craig Roberts, University of Missouri (MU) Extension forage specialist, says the new variety "could put 200 more pounds on every steer than a toxic-endophyte fescue. That's about $150 more per steer."

In addition, ArkPlus appears to offer stand durability and resistance to stress, something earlier endophyte-free tall-fescue varieties from the mid-1980s lacked, Roberts says. He reports that after three years of field-testing under grazing conditions, ArkPlus had 90% of the stand density of Kentucky-31 (KY-31) and the same resistance to stress. (KY-31 is the standard endophyte-infected tall fescue.)

"ArkPlus is suited to the latitude of Missouri, running east toward the Atlantic states," Roberts says. The variety has an extended region of adaptation, including southern Iowa, Illinois, Indiana, Arkansas and the northern portions of Mississippi. Seed was available for planting for the first time in fall 2003, with an expected cost of about $3.25 per pound (lb.).

For more on ArkPlus, contact West at cwest@uark.edu, or contact Roberts at (573) 882-2801 or robertscr@missouri.edu.

More to come

Seed from three of the newest available wheatgrass varieties will be available in spring 2004. Developed by scientists at the U.S. Department of Agriculture (USDA) ARS and the University of Nebraska-Lincoln (UNL), the varieties are adapted to the central and northern Great Plains. The three new varieties include NU-ARS AC2, Beefmaker and Haymaker.

- NU-ARS AC2 is a Fairway-type crested wheatgrass. Adapted to semiarid regions, its yields equal some of the best standard crested wheatgrass varieties even though it's about 6 in. shorter. Forage researchers say it should yield well when used to reseed cool-season pastures and rangeland in mid- and short-grass regions.
- Beefmaker is an intermediate wheatgrass that's high in protein and highly digestible. It's recommended for yearling stockers.
- Haymaker is an intermediate wheatgrass that produces high yields in low-rainfall areas. It's intended as a cool-season hay crop for maintaining beef herds.

"All three of these varieties survived the drought we've had in the Plains very well," adds Ken Vogel, an ARS researcher who helped develop the varieties.

Better bromes, too

Across Montana and western states, Montana meadow brome is gaining popularity among beef producers for use as a mix in alfalfa hay fields, pastures, and for fall and winter grazing. That's according to Dennis Cash, an Extension forage specialist at Montana State University (MSU) who was involved in the development of the new variety, which was released in 2001.

"Meadow brome is known for its abundant regrowth after being cut. But one of the limitations of the previous variety, Regar, is that it was a poor seed producer," Cash says.

He reports that the Canadian varieties Fleet and Paddock were developed with improved yield and seed production, and Montana meadow brome was developed predominately from genetics that trace back to the Paddock variety.

The Montana variety was selected for traits of regrowth, overwintering ability, grazing pressure and seed yield, Cash explains. He adds, "Montana has similar forage production to Fleet and Paddock, but significantly higher seed production than Regar."

Cash says they are currently working on trials to create another new variety of meadow brome that has improved seed production combined with better yield and quality than previous varieties.

Until then, he says, meadow brome is still one of the best forage choices for beef producers in the Intermountain West. He cautions that no studies have been conducted east of Colorado to determine if meadow brome can survive the humidity and disease challenges of more eastern states.

Cash says, "In Montana, we've seen several producers establishing stands of an alfalfa-meadow brome grass mix for the dual purpose of haying and then stockpiling forage for fall and winter grazing." He reports that the combination works well, because the grass helps reduce bloat and crown damage. And the meadow brome appears to be more productive and winter hardy than orchard grass.

Meadow brome is also proving itself in a multispecie field trial MSU has been evaluating for the past two growing seasons. The trial includes 30 of the newest varieties from several different grass species, and, Cash reports, all meadow brome varieties (Fleet, Paddock, Regar, Montana and MacBeth) are outyielding the other grass species, including smooth brome.

He says one other species that is showing good potential in the trial is Alaska brome. "We have two Alaska brome varieties in the test — Hakari and Blizzard — and they are keeping similar production to the meadow bromes."

These varieties are very winter-hardy and tend to have the production of smooth brome, Cash explains. "It's certainly a forage to watch."

Jensen also reports that they've developed Cache meadow brome, which will be released this spring. He adds, "It was developed under intensive rotational grazing, significantly outyields Fleet and Regar, and does well under drought conditions."

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