Consider late-summer planting of turnips for quick, quality forage.

Story & photo by JOANN PIPKIN

For farmers in southern Missouri, there aren’t many fond memories of the summer of 2012. Parched pastures dotted the landscape after an exceptionally dry summer. Fields were nothing but bare. Cattlemen needed a quick-fix forage — and one that wouldn’t put extra strain on their pocketbooks — to get their stock through the fall grazing season.

That’s when Vince Weatherly decided to give turnips a try. It was mid-August and the weather forecast showed a glimmer of hope for some relief. Weatherly gambled. He no-tilled turnips and rye into pastures and waited.

A timely late-August rain proved fruitful. “That’s the key time to plant, mid- to late August,” Weatherly notes. “We do a lot of rotational grazing and strip-grazed the turnips. It worked very effectively.”

A commercial Angus breeder from Aurora, Mo., Weatherly says the turnips were ready for grazing at 6 to 8 inches (in.) tall.

“They are sure a good gap-filler,” he says. “They will grow in a hurry if you have a drought. Cattle like them and will do well on them.”

A member of the Brassicas family, the turnip is a highly productive, digestible forage that contains relatively high levels of crude protein. Turnips grow fast and can be grazed as early as 70 days after planting, according to the Missouri Forage and Grasslands Council. Seeding can take place any time from when soil temperature reaches 50° F until 70 days before a killing frost.

“With the right conditions, turnips are hard to beat,” explains University of Missouri (MU) State Forage Extension Specialist Rob Kallenbach. “They can produce between 2 and 3 tons of dry matter per acre for grazing.”

Overall, the forage quality the turnip offers is really good, says Kallenbach. “They are excellent feed.”

A different success story

Just as grazing turnips brought many southern Missouri farmers through drought, Pleasanton, Kan., cattlemaster Scott Lindell says the forage has been a mainstay in his operation for more than a decade.

In east-central Kansas, stocker operators and cow-calf producers alike plant turnips following wheat. Sowing them in mid-July is best for his region, explains Lindell. “Then, if we get a shower the end of July, first of August, you get a pretty good crop.”

With about 200,000 seeds per pound, Lindell says he has had good results mixing turnips with lime and fertilizer at application. Turnips and fertilizer alone result in uneven planting, he says. He typically applies this mixture before no-tilling rye into barren wheat ground.

“The turnip is such a small seed,” Lindell says, “any kind of disruption in the soil, even a little rain, will set it in. The seed is small enough it will almost go through a salt shaker.”

Grazing stocker cattle in addition to his commercial Angus cow-calf operation, Lindell says he is able to use the turnip in both enterprises.

“The calves really like to graze the tops,” Lindell notes. “We’ll pull the calves off the turnips in mid-December and send them to the feedyard.” Next, he turns cows in to graze the turnips until late February.

“Then in March we will turn some calves back on the turnips as the rye comes on,” Lindell notes. At that point, he applies another 25 pounds (lb.) to 30 lb. of nitrogen on the rye.

Cattle will typically graze the turnip tops first, then come back and pull the turnip out of the ground for additional feed, according to MU Extension Agronomy Specialist Tim Schnakenberg.

“Not only does the turnip get you through a pinch,” Lindell states, “but it also is a great feed for stockers.”

Great feed, indeed. Schnakenberg cites a Kansas publication that reports turnip tops at 15%-22% protein while the roots contain 8%-10%.

“TDN (total digestible nutrient) values of the top are typically around 70% or better,” Schnakenberg says. “This makes very good feed, though it's short-term.”

Strip-grazing is the recommended feeding method for turnips, Schnakenberg says. “It allows the grazer to more efficiently manage the crop and ration it to the cattle.”

Since the entire crop, including roots, can be consumed at the last grazing of the season, it is a good idea to have hay or access to other pastures on hand so the cattle aren’t grazing a solid stand of turnips, Schnakenberg says. “Or producers may want to allow grazing only a few hours per day to create a better balance in the diet.”

Results despite the challenges

While turnips delivered timely results for drought-stricken farmers, as well as those looking for a winter cover crop, success has not come without a little extra management and planning.

“You can’t let them get too big (before grazing),” Weatherly cautions. “We were so limited on other forages that we were able to graze them and keep them from getting too big. We had rain later in the fall, so they grew back and we were able to graze them again.”

Still one of the greatest challenges with turnips is its intolerance of competition.

“Planting into a thick stand... (Continued on page 22)
of fescue usually doesn’t work well,” Schnakenberg explains. For southern Missouri, he adds, “The best fit is behind corn, sorghum, sudan or millet crops in the fall.”

Lindell has tried aerial seeding turnips over corn with moderate success. He recommends farmers consult with their county extension specialist for the proper seeding and weed-control levels when planting turnips with corn to achieve success with this planting method.

“The first 21 days after germination can hamper brassicas. A lot of competition and insect activity,” as Kallenbach puts it.

Lindell’s experience has found the turnip is ready to be grazed when it’s a little larger than a 50¢ piece, noting the turnip is ready to be grazed when it’s a little larger than a 50¢ piece, noting the top turnip and become grazable earlier — at 40 to 60 days,” Lindell adds. “If you don’t get that rain, it’s really hard to get something available to graze.

There are some taproot varieties that produce a lot of biomass above ground, which can be grazed several times during the year instead of just once,” he explains. “A traditional turnip grows best in cool-season environments and requires 90 to 100 days of good growing weather (but not much heat) for maximum productivity. In hotter, drier environments farmers need plants that are more adapted to drought,” he continues. “There are several varieties that are easier to grow than the traditional purple-top turnip and become grazable earlier — at 40 to 60 days,” says Snider.

There is growing use of a cocktail mix of plants for soil health. These cover crops are also great for grazing. “That’s better than corn around here. And it’s awfully easy to turn calves out to graze.”

Editor’s Note: Joann Pipkin is a cattlewoman and freelance writer from Republic, Mo.

**Forage Brassicas**

New varieties are grazable sooner and can be grazed multiple times.

Nontraditional crops can augment forage supplies. Brassicas are a good example. This large family of plants includes turnips, radishes, rutabaga, cabbage, cauliflower, broccoli, rapeseed and canola. Some have been selected/adapted to create varieties that work well as livestock forage.

“Today radishes and turnips are used for cover crops,” says Snider. “We now have new kinds of forage brassicas that can be produced more leaf mass and less bulb than a turnip. The leaves grow back after grazing. Grazing can be grazed multiple times during the growing season. Winfred, Graza and Hunter provide multiple grazing (with regrowth) during the growing season. There are more options today than just traditional turnips. There are also some proprietary purple-top (tankard) turnips that can be used for winter stockpile-type grazing,” says Snider.

“Graza is the only certified forage radish. It was created by crossing different types of radish from various parts of the world. It grows very fast and can be grazed in 40 days at the proper time of year,” says John Snider.

**Worth their weight in gold**

All in all, for a relatively low investment turnips do deliver.

Lindell provides this example. Take anticipated gross return of $1.50 per lb. × 2.5 head of cattle per acre that will graze the turnips for 100 days and gain approximately 2.25 lb. per head per day. He figures the turnips add about $844 in return per acre in this scenario. “That’s a lot of revenue per acre,” he states.

That’s better than corn around here. And it’s awfully easy to turn calves out to graze.”

“Graza is the only certified forage radish. It was created by crossing different types of radish from various parts of the world. It grows very fast and can be grazed in 40 days at the proper time of year,” says John Snider. All of these new varieties produce more leaf mass and less bulb than a turnip.

“Graza is the only certified forage radish. It was created by crossing different types of radish from various parts of the world. It grows very fast and can be grazed in 40 days at the proper time of year,” says John Snider.