



# Texas Agricultural Extension Service

## The Texas A&M University System

### **Basic Best Management Practices Help Boost Wheat Forage Productivity**

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LUBBOCK – Producers can achieve good results from a wheat forage program if they follow a few basic best management practices for this crop, said a Texas A&M University agronomist.

“Forage production varies widely among wheat varieties, and from year to year, but there are a few basic considerations to keep in mind,” said Brent Bean, Texas Agricultural Extension Service agronomist based in Amarillo. “When choosing a wheat variety, look at seed size, germination and seedling vigor. You want a minimum test weight of at least 56 pounds per bushel and a germination rating of at least 85 percent or higher. Good quality seed is essential in getting a quick stand – which improves early season forage production.

“Try to plant under optimum field conditions (good moisture and soil conditions). Increase your seeding rate when planting under less than ideal field conditions. The seeding rate you use will depend on seed size. Large, heavy seed is preferable to smaller, lighter seed.”

Use a higher seeding rate for forage production than you would for grain production and try to sow the crop early (early to mid-September). Early-planted wheat will push roots deeper and has a greater ability to use available soil moisture than later-planted wheat, he said.

Soil testing will help gauge the crop’s fertilizer needs.

The general rule of thumb on wheat fertility is to apply 1½ pounds of nitrogen for every bushel of grain the crop should produce, after residual soil nitrogen is accounted for, the agronomist said. A rule of thumb to follow for forage production is that 60 to 80 pounds of nitrogen will be required for each ton of dry forage produced.

“If grazing and grain production is your goal, apply about 2 pounds of nitrogen for every bushel of your yield goal, and then topdress the crop at jointing with ¾-pound of nitrogen per bushel of yield goal after you’ve pulled the cattle off,” Bean said. “But don’t neglect phosphorus in your fertility plan. Adequate phosphorus promotes early forage production.”

Deep banding phosphorus is a better bet than a broadcast, incorporated surface application because it puts phosphorus down in the root zone.

Another option is to apply phosphorus in the seed furrow at planting – by mixing dry fertilizer with the seed, or by directly applying liquid fertilizer into the seed furrow

Irrigating in early spring is another good management practice that often returns “the most bang for the buck.” Early spring irrigation promotes tillering and tiller survival, he said.

“It’s also a good idea to turn cattle out to graze only after tillering has started in the fall, and to pull them off sometime in March,” Bean said. “The optimum time to pull cattle off wheat is when the first hollow stem appears. When this occurs can often vary as much as three weeks, depending on the year. Grazing beyond hollow stem stage lowers grain yield potential.

“If you want to produce hay from your wheat, consider cutting when the crop reaches the boot stage. Protein content of 20 percent is not uncommon when wheat is booting, but protein content decreases significantly once wheat heads out.”

The key to getting good wheat forage yields, and perhaps additional grain yield, is selecting a variety that fits your situation and operation.

“Look at yield and performance ratings for several different varieties – preferably from three or four variety trials conducted in your region,” Bean said. “Extension’s annual Small Grain Notes publication is a good place to start – it lists results of variety trials conducted at 30 locations statewide.”

Small Grain Notes is available at county Extension offices statewide. Texas A&M’s Soil and Crop Science Department website <http://soil-testing.tamu.edu> also contains this and other information on wheat production – click on “Crops, Weeds and Facts,” then select “Wheat and Small Grains.”