

**Forage Yield From Wheat Variety Trials 2002-2003**  
**Production Technology – Crops**

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The Oklahoma wheat crop got off to an excellent start with 58% planted by September 29 compared to 37% for the five year average. Fall forage growth was excellent where there was adequate moisture, but many locations ran out of water and forage production in November and December was minimal. In many areas of the state, little, if any rainfall fell from early October until December snow or, for some areas out west, even later. Some fields appeared to have dead wheat due to drought stress especially in southwest Oklahoma. Many locations had temperature lows in the single digits on January 6, 2004. The combination of low temperature and/or drought stress resulted in wheat forage turning brown. In most cases, the wheat is not dead and will green up once moisture is obtained and the right temperatures occur for growth.

**Pest Problems**

Greenbug, bird cherry-oat aphid, and/or army cutworm populations were high enough in many locations that fields were sprayed in December and January. It is especially critical that producers watch fields that appear dead for these insect problems. If the wheat is alive and tries to grow after receiving moisture, the insects may kill the already struggling wheat plants.

Some locations had leaf rust, septoria leaf blotch, powdery mildew, or tan spot by early November. Septoria and tan spot seemed to be the worst in fields with considerable residue on the soil surface. More fields than normal had high residue levels because of the dry summer conditions that delayed incorporation or decomposition of the residue.

**Yellow Wheat in November** In north central Oklahoma many of the early planted fields were yellow in November. The yellow wheat may have been caused by a combination of several factors. First, for fields that had received heavy rains in September after nitrogen application in August, nitrogen deficiency may have caused the yellow. The nitrogen was leached by the rains and was below the root system of the developing seedlings. Small applications of nitrogen resulted in healthier plants because nitrogen was available where the roots were located. Other fields had enough leaf rust or powdery mildew present that these diseases made the plants yellow. These fields greened once the weather was not as conducive for the disease.

### **Locations of Trials**

The objectives of the forage trials were changed in 2003. All wheat variety trials from which fall forage was harvested are being grazed by cattle from late December until the first hollow stem stage (FHS) of Jagger, one of the earliest varieties to reach FHS. FHS is the growth stage where grazing needs to be terminated to maximize profit in a graze-plus-grain wheat management system. In previous years trials from which forage data had been collected were mowed and not grazed. Because of this change in philosophy, the clipped trials have been relocated into fields where producers are grazing the wheat. Trials were planted at Cherokee, Marshall, Perkins, and Walters.

### **How Data Were Collected**

Wheat forage data were collected in October and/or December, depending on forage quantity in October, by hand clipping at the soil surface. If there was six inches or more growth before early November, the forage was clipped at that time, the exact spot in the row that was clipped was marked so we could return and clip the same place the second time. The remainder of the plot was mowed if an October clipping was made. All plots were clipped in late November or December. Cattle were allowed to graze the plots after the December clipping. Differences between varieties in fall forage production are small when averaged across locations, the top LSD group in the table on page 3 “Fall Forage 2003 Wheat Variety Trial” includes 13 of the 16 entries. Therefore, one way to use this table, if the focus is a forage-plus-grain system, would be to eliminate varieties that are not in the top LSD group from consideration. Next, concentrate on other characteristics of the varieties in the top LSD group to determine which varieties to grow.

### **New Varieties in 2003**

AgriPro Fannin and Overley are included in the trials for the first time this year. Overley is a very large-seeded new variety from Kansas State.

### **Additional Information on the Web**

For information on disease resistance and other characteristics of all wheat varieties grown in Oklahoma, see the “Wheat Variety Characteristic Chart” under Variety Information on the web at <http://www.wit.okstate.edu>. The variety information is updated regularly to give the latest in disease ratings for these varieties and incorporate new varieties. From the above address you can also connect to the latest grain and full-season forage data.

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