

**Forage Yield From Wheat Variety Trials 2001-2002
Production Technology – Crops**

PT 2002-11

February 2002

Vol. 14, No. 11

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Wheat Variety Trials

The 2001-2002 wheat crop in Oklahoma started slowly for the second year in a row. Soils remained exceedingly dry through early September. The first rains occurred around September 10. September temperatures were not exceptionally high so early planted wheat resulted in very good stands. Producers seemed very anxious to plant on the moisture received in mid September, perhaps reacting to the dry planting conditions of 2000. By the first of October 60% of the wheat had been planted compared to a five-year average of 31%. Little rain occurred in October and much of the earliest planted wheat began suffering from drought stress, reducing forage production. Rains for the remainder of the fall were very scattered with the National Weather Service reporting between 25 and 50% of the normal precipitation for Oklahoma between October and January. Wheat in most areas continued to suffer drought stress limiting forage production.

Pest Problems

Pest problems during the fall of 2001 included weeds, leaf rust, and aphids. Ryegrass and cheat emerged at the same time as the wheat. Many producers who placed orders to have fields sprayed with Maverick were unable to get them sprayed before February because of drought stress. Leaf rust did appear in a few fields. Late in the fall greenbugs and bird cherry-oat aphids became a problem in many fields. As a result, we expect to find a high level of barley yellow dwarf mosaic virus in wheat this spring.

Location of Trials

Forage trials were planted at Chickasha, Eakly, and Perkins. Eakly was dusted in on September 20 and received sufficient rain around November 1 to initiate germination. Other locations had ample moisture at planting to obtain good stands and fall forage data. Forage trials were planted at 120 lb/a. Two trials intended for grain only, Lahoma and Goodwell, planted on September 29, 2001 at 60 lb/a and September 14, 2001 at 100 lb/a, respectively, had enough forage by mid-December that forage yield data was collected. The Eakly trial was not harvested until mid-January because of late germination.<p>

New Varieties for 2001-2002

Varieties included in the trials for the first time were Above which is a Clearfield® wheat from Colorado, AgriPro Jagalene, two AGSECO experimentals (2022 and 2147), Cossack from Goertzen, 2145 from Kansas, and Ok102 (pending OAES approval at press time), a new OSU variety that was tested last year under experimental number OK97508.

Gaicho Treatment

Gaicho is a seed treatment that controls aphids early in the season. By controlling aphids, it may reduce or eliminate early infections of barley yellow dwarf virus that can strongly reduce wheat yield. We wanted to continue our investigation of the benefits of Gaicho over many locations and have included a 2174+Gaicho treatment to compare with untreated 2174 at all locations. Gaicho did not improve forage or grain yield in data collected for the last two years.

Experimental Lines Included

For the fourth year, we have included several candidate cultivars that have potential for release in the next year or two. These are included to evaluate forage capability and collect grain yield data from sites not normally used as test locations in the wheat breeding program. Six hard red winter wheat lines called OK96717-99-6756, OK96705-99-6738, OK95548-98-6654, OK98697, OK98699, and OK95616-98-6756 are included.

NEW FEATURE

Managing Wheat in Low pH Soils

Variety selection, placing phosphorus in the seed furrow, and liming are all methods of counteracting low pH. This trial (see page 10) includes all combinations of these treatments to evaluate their effectiveness of increasing forage and grain yield and economic return to the treatment.

OTHER FORAGE TRIALS

1. Planting Date - Seeding Rate Trial

The second year of data is presented for a forage-plus-grain trial under irrigated conditions at Goodwell (see page 8). The trial features three seeding rates (60, 120, and 180 lb/a), two planting dates (Sept. 1, and Oct. 1) and four varieties (Custer, Intrada, Jagger, and TAM 107). The purpose was to determine the effects of each of these factors on fall forage yield and grain yield following forage removal under irrigated conditions. The planting dates were designed to represent management systems where wheat followed irrigated corn silage or corn for grain.

Fall Forage Comparison Among Small Grains

The final feature this year is a comparison of wheat, oat, barley, rye, and triticale for fall and full-season forage (see page 12).

How Data Were Collected

Wheat forage data were collected by hand clipping at the soil surface. Because differences between varieties in fall forage production are so small, our focus in a forage-plus-grain system should be on which varieties to avoid due to significantly reduced forage production potential.

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://clay.agr.okstate.edu/wheat/wit.html>. 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.

Cooperation Acknowledged

These data result from a cooperative effort between the Oklahoma Agricultural Experiment Station, the Oklahoma Cooperative Extension Service, and the Oklahoma Wheat Commission.

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