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

# PT 2003-2

# **March 2003**

# Vol. 15, No. 2

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The 2002-2003 wheat crop in Oklahoma started very well. Based upon Crop Reporting statistics, 56% of the wheat was planted by September 30, well ahead of the five year average of 35%. Cooler than normal and wet conditions in October delayed planting for the remaining wheat and reduced growth from early plantings. Generally excellent stands were obtained, and by December 1, most wheat in the state looked excellent. Some exceptions were those fields that had to be replanted because of excessive water or were planted October 15 or later. Forage production from early plantings was very good. In February the Crop Reporting Service indicated that 62% of the wheat was being grazed.

## **Pest Problems**

Pest problems during the fall of 2002 included weeds, leaf hoppers, and winter grain mites. No problems with greenbugs were observed.

#### **Location of Trials**

Forage trials were planted at 120 lb/a. No data is reported from Frederick because the data were too variable. Chickasha received a heavy rain two days after planting resulting in large differences in stand establishment while Perkins, although planted later than desired, had nearly perfect fall growing conditions.

## New Varieties for 2002

Varieties included in the trials for the first time were AgriPro 502CL - a Clearfield<sup>®</sup> wheat, Avalanche - a Colorado released hard white wheat, AgriPro Platte - another hard white wheat, Cisco - a Goertzen red wheat, and TAM 111.

## **Experimental Lines Included**

For the fifth year, we included several candidate cultivars that have potential for release in the next year or two. These were included to evaluate forage capability and collect grain yield data from sites not normally used as test locations in the wheat breeding program. Seven hard red winter wheat lines called OK94P549-11, OK94P549-21, OK95616-56, OK95548-54, OK96705-38, OK98690, and OK98699 were included. Characteristics of each of these are available b selecting candidate cultivars on the web at <u>http://www.wit.okstate.edu</u>.

#### **NEW FEATURE**

#### **Other Small Grains Tested**

Instead of conducting a separate trial for other small grains, this year we included a few triticale, barley, and rye entries in the forage trials with the wheat varieties. The entries were Oklon rye, ThunderGreen rye that was tested as Amilo previously, Post 90 barley, ThunderCale triticale that was tested previously as Danko Presto, and TX93VT5019 triticale - a Texas experimental line.

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#### **Post-harvest Dormancy Demonstration**

We have presented variety ratings for post-harvest on the variety information web site (see <u>http://www.wit.okstate.edu</u>). This trial demonstrated the post-harvest dormancy impact on stand establishment and fall forage.

## **OTHER FORAGE TRIALS 1. Planting Date – Seeding Rate Trial**

The third year of data is presented for a forage-plus-grain trial under irrigated conditions at Goodwell (see page 7). The trial featured 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.

## 2. Dryland Dual-Purpose Seeding Rate Trial

Western Oklahoma producers express concern when they observe 120 lb/a seeding rate in our research trials conducted in dryland environments. This trial is designed to determine if the high seeding rates will "burn up" and therefore reduce grain yield when drought stress periods occur.

#### How Data Were Collected

Wheat forage data were collected in December 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 each time a clipping was made.

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 <a href="http://wit.okstate.edu">http://wit.okstate.edu</a>. 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, the Oklahoma Wheat Commission, and USDA-CSREES agreement no. 2001-34198-10403.

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