Test Site Information - SRPN

Clovis, NM -- The irrigated nursery was planted on 9/25/95 into fallow. Plots were irrigated on 9/27/95, 10/13/95, 11/30/95, 2/14/96, 3/4/96, and 5/12/96. Fertilizer rates consisted of 100 lbs/a of 10-30-0. Seeding rate was 90 lbs/a. Harvested on June 24, 1996. The dryland nursery was planted on 9/26/95 at a rate of 40 lbs/a. Fertilizer rates consisted of 100 lbs/a of 10-30-0. The dryland nursery was irrigated on 9/27/95 and 10/13/95 to ensure germination with approximately 6 inches of water applied. Harvested on June 21. Wheat yields were generally lower than previous years due to lack of winter moisture and above normal temperatures during the growing season.

Farmington, NM -- Planted on 9/19/95 under a center pivot at a seeding rate of 100 lbs/a with 130 lbs/a N applied. Lorsban was applied on April 16 for control of Russian wheat aphid. Harvested on 8/1/96.

Bushland, TX -- No additional information.

Chillicothe, TX -- No additional information.

Prosper, TX -- No additional information.

<u>Stillwater. OK</u> -- Planted on 10/17/95. There were poor stands in some plots and drought during most of the growing season. No diseases were apparent. Harvested on 6/12/96.

Altus, OK -- Abandoned due to drought stress.

Lahoma, OK -- Planted on 10/10/95 and harvested on 6/18/96.

Goodwell, OK (irrigated) -- Planted on 10/6/95, harvested 6/25/96.

Hutchinson and Manhattan, KS -- Fall stand establishment was above average and plant development was normal going into the winter. A dry period beginning in October and extending into the middle of April minimized forage growth and resulted in some drought stress. Three significant freezes occurred; on Feb. 1-3 (-15°F), March 7-8 (-4°F) and March 25-26 (+5°). Each freeze event followed a warming trend which had initiated growth and was extremely detrimental on development. Although minor stand damage from these spring freezes was noted, the major impact was tiller death. Those cultivars that had initiated rapid regrowth were hurt the worst. The dry spring also reduced disease pressure significantly. Minor disease pressure was observed but had little affect on final yields. Grain filling conditions were very good, which allowed many of the selections to recover from the initial freeze damage and perform better than expected. In general, later selections were favored under these types of environment.

Hays, KS -- No additional information.

Garden City, KS -- Nursery was abandoned due to winterkilling.

Colby, KS -- Planted on 9/28/95 and harvested on 7/12/96.

Wichita, KS -- No additional information.

<u>Winfield, KS</u> -- Moisture was extremely marginal at planting but adequate stands were established. Tillering was minimal through the winter and severe wind erosion occurred through the winter months. Most winter survival problems occurred in late winter/early spring after breaking dormancy. There were no leaf diseases and no lodging or shattering. Late season rains helped this nursery recover amazingly well.

Hugoton, KS -- No additional information.

<u>Colorado Sites</u> -- The Ft. Collins nursery was affected by late hail. Yields at Burlington were reduced by a spring freeze and water stress. Yields at Akron were higher than normal.

Nebraska Stations, NE -- The SRPN and NRPN were seeded at five (Lincoln, Nelson, North Platte, Sidney, and Hemmingford) and four (Lincoln, North Platte, Sidney, and Hemmingford), locations respectively. Only two locations were harvested (Sidney Hemmingford). Sidney suffered 10-20% hail damage shortly before harvest. The high yields at Hemmingford included some volunteer wheat, as preplant tillage was only partially successful under dry conditions. North Platte was abandoned due to hail about 2 days before the nursery was mature enough to be harvested. The remaining sites suffered from exceptionally dry planting conditions and little residual moisture due to rotational changes. Lincoln suffered from severe wind erosion. The nursery at Nelson followed alfalfa and had very poor stands due to drought.

Imperial. NE -- The nursery was irrigated with a center pivot system. The nursery had a fairly high C.V. compared with previous tests at this site, probably due to some lodging in a few isolated plots.

Brookings, SD -- (Brookings County, Aurora Farm) Planted on 9/25/95. The nursery was planted into black summer fallow with good soil moisture. Fall stands were adequate but insufficient snow cover caused a high level of winter injury throughout each of the nurseries. Variability related to non-uniform winter survival, and subsequent annual weed pressure, rendered the nurseries unsalvageable. The RGON was completely lost.

<u>Watertown, SD</u> -- (Codington County, NE Research Station) Planted 9/26/96. The RGON was planted into black summer fallow with good soil moisture. Fall stands were adequate, but a lack of snow cover resulted in near-complete winterkill throughout the field. Average survival estimates for a rye trial in the same field were 20% (Roughrider estimated at 5-10% survival).

Pierre, SD -- (Hughes County, Dakota Lakes No-Till Research Farm) Planted on 9/20/95 and harvested on 8/6/96. The nurseries were planted no-till into lentil stubble with adequate soil moisture. Fall stands were only adequate (cool temperatures in the fall slowed development) and significant differential winter injury was recorded (especially in the SRPN and WPRPN). Cheatgrass became a significant problem, particularly where stands were thinned or genotypes were slow in recovering from the winter freeze stress. No significant disease or insect pressure was observed.

Winner, SD -- (Tripp County, Farmer-Cooperator) Planted on 9/22/95 and harvested on 7/24/96. The nurseries were planted no-till into standing spring wheat stubble (about 8-10 inches) with soil moisture above optimal. Fall plant development was adequate but no differential winterkill was recorded. Significant leaf spotting disease pressure (mostly Tan spot) was observed and lodging was above average. Cool temperatures during grain filling prevailed throughout the state.

<u>Columbia. MO</u> -- Fall drought followed by cycles of freezing/thawing temperatures caused severe winterkilling.

Lind. WA -- The nursery was abandoned.

<u>Crawfordsville, Iowa</u> -- The fall was dry and, although germination appeared good, there was little growth prior to winter. The winter was extremely cold with fluctuating warm and cold days in early spring. The SRPN was severely damaged by winterkilling and resulting stands were too poor and inconsistent to collect yield data.