

New Varieties and Germplasms

The following is only a partial list of new wheat varieties and germplasms available in the region. Included are those for which we have current information.

VARIETIES

The Kansas Agricultural Experiment Station announced the release of '2137' hard red winter wheat. 2137 was tested in the 1994 and 1995 SRPN as KS92P0263-137 and has been proposed to replace the variety '2163'. It has the pedigree 'W2440/W9488A//2163'. 2137 is similar to 2163 in disease and insect reactions except that 2137 has improved leaf rust resistance. It also has a 2.5 lb/bu test weight advantage over 2163 and 1% increase in flour yield. 2137 is 1 to 2 inches taller and 1 day later in heading than 2163. 2137 appears best adapted to central, northcentral, and western Kansas.

The Nebraska Agricultural Experiment Station and USDA-ARS announced the release of 'Pronghorn' (PI593047) hard red winter wheat. Pronghorn is an F3 derived line from the cross 'Centura/Dawn//Colt sib' and was tested in the WPRPN in 1993 and 1994 as NE88584. Pronghorn was released primarily for its superior adaptation to drought-prone dryland conditions of western Nebraska and Wyoming and its stem rust resistance. Pronghorn is 3 cm shorter than Buckskin and 6 cm taller than Arapahoe with long coleoptile, similar to Scout 66. Pronghorn is 1 day earlier than Buckskin and 1.5 days earlier than Arapahoe. It possesses Sr6 and Sr17 for resistance to stem rust, is moderately susceptible to leaf rust, and is susceptible to Hessian fly, SBMV, and WSMV. Pronghorn has high test weight patterns, similar to Buckskin and Siouxland. Its quality attributes are acceptable with mixing properties similar to Buckskin and stronger than Arapahoe.

The Montana Agricultural Experiment Station announced the release of 'Vanguard' (PI593891) hard red winter wheat. Vanguard is an F5 selection from the cross 'Lew/Tiber//Redwin' and was tested in the 1995 NRPN as MTSF2238. Vanguard was released for its tolerance to feeding and cutting damage caused by the wheat stem sawfly (*Cephus cinctus* Norton). Vanguard expresses a high degree of stem solidness over environments. Vanguard is similar in plant height to Judith and Neeley and heads about 1 day later than Rocky and 3-4 days earlier than Neeley. It has marginal winterhardiness for Montana conditions, having similar or slightly lower hardiness than Neeley and Rocky. Vanguard is susceptible to prevalent races of stem rust, leaf rust, stripe rust, dwarf bunt, and Russian wheat aphid and has shown tolerance to WSMV under field conditions. Grain and flour protein is similar to Redwin, superior to Neeley and Rocky, with relatively long mixing time and high dough stability.

Agripro Seeds, Inc., announced the release of 'AP7501', 'AP7510', and 'AP7601' hybrid hard red winter wheats; 'Platte' and 'Solomon' hard white winter wheats; and 'Big Dawg' hard red winter wheat. The AP7501 hybrid

was tested in the 1995 SRPN under that same designation. AP7510 was tested in the 1995 and 1996 SRPN under the experimental designation WX92-0408. AP7601 was not tested in the SRPN. Platte is a hard white wheat derived from the cross 'N84-1104/Abilene' and was tested in the 1995 SRPN as WI89-163W. Solomon is also a hard white wheat and was not tested in the Regional Performance trials. Big Dawg is derived from a bulk selection and was tested in the 1996 SRPN under the experimental designation W93-460.

GERMPLASMS

The USDA-ARS and Kansas Agricultural Experiment Station announced the release of KS95WGRC33 hard red winter wheat. KS95WGRC33 has resistance to Septoria leaf blotch (caused by Septoria tritici Roberge ex Desmaz.) under both seedling inoculation and field conditions. It has the pedigree KS93U69*2/TA2397, where KS93U69 is a sister line of KS90WGRC10 with the pedigree TAM-107*3/TA2460. TA2397 and TA2460 are both accessions of Triticum tauschii. The leaf blotch resistance of KS95WGRC33 is derived from TA2397 and it carries the Lr41 gene for leaf rust resistance derived from TA2460. KS95WGRC33 is similar to TAM-107 in days to heading, plant height, and general phenotype. The genetic basis of its leaf blotch resistance has not been determined.

Regional Notes

The 1995 Hard Red Winter Wheat Breeders Field Day was held in May at Hutchinson, KS, hosted by Kansas State University and USDA-ARS wheat researchers. The 1996 Breeders Field Day is scheduled for June at Ft. Collins, CO, hosted by researchers from Colorado State University and Agripro Seeds.

NOTE: The response reaction of entries to leaf and stem rust infection has been coded on a 1-9 scale to facilitate generation of this report. This same scale has been used in past reports. The response data can be interpreted as follows:

<u>Response scale</u>		<u>Réaction type</u>
1	-	VR
2	-	R
3	-	MR
4	-	M
5	-	M
6	-	M
7	-	MS
8	-	S
9	-	VS