**Varietal Publication No. 207**

# A REPORT OF THE

# NATIONAL SMALL GRAIN VARIETY REVIEW BOARD


**ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES**

**APRIL 2005**

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2005 NVRB

NATIONAL SMALL GRAIN VARIETY REVIEW BOARD

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APRIL 2005

The Association of Official Seed Certifying Agencies (AOSCA), National Small Grain Variety Review Board (NSGVRB), review the following varieties on February 22, 2005, in Kansas City, Missouri. The Board recommended the inclusion of these varieties for certification. Seed of these varieties may be certified, providing production meets all standards of the Certifying Agency of the state in which the seed is grown.

All variety information, including descriptions, claims and research data to support any claim was supplied to the NSSGVRB by the applicants. The NSGVRB makes judgment regarding recommendation of varieties for inclusion in certification based on the data supplied. Beyond the, the NSGVRB takes no position on the accuracy or truthfulness of any description or claim made by the applicants.

Further information on current procedures, application forms and detail regarding the NSGVRB can be obtained from:

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Respectively submitted,

Daryl Strouts, Chairman
National Small Grains Variety Review Board

**Association of Official Seed Certifying Agencies**
**National Small Grain Variety Review Board**

WHEAT VARIETIES RECOMMENDED FOR CERTIFICATION 2005

**Branson**
**Soft Red Winter Wheat**

Branson is a soft red winter wheat bred and developed by AgriPro Wheat. Branson is a medium height semidwarf variety with good straw strength. Branson is moderately resistant to Septoria Leaf Blotch, Stripe rust, and Powdery mildew. Intermediate resistance to Soilborne Mosaic virus and Leaf rust. Primary adaptation is the wheat growing regions of Missouri, Illinois, Indiana, Michigan, and Ohio.

Juvenile growth habit is semierect. Plant color at boot stage is dark green. Flag leaf at boot stage is erect and twisted. Waxy bloom is present on the head, stem and flag leaf sheath. Anther color is yellow. Head shape is strap, middense and awnletted. Glumes are glabrous, narrow in width and long in length with oblique shoulders and obtuse beaks. Seed shape is ovate. Brush hairs are midlong in length and occupy a large area of the seed tip. Seed crease depth is shallow and width is narrow. Seed cheeks are rounded.

Branson has been uniform and stable since 2003. Less than 0.8% of the plants were rogued from the Breeders Seed increase in 2004. Approximately 90% of the rogued variant plants were taller height wheat plants (8 to 15 cm) and 10% were awned plants.

AgriPro Wheat maintains seed stock and certified classes of Foundation, Registered and Certified. Certified seed stocks of Branson will be available in the fall of 2005. Certified acreage is not to be published by AOSCA and certifying agencies. Plant Variety Protection is anticipated and Branson may only be sold as a class of Certified seed.

**Fannin**
**Hard Red Winter Wheat**

Fannin is a hard red winter wheat bred by Texas A&M and developed by AgriPro Wheat. Fannin is a semidwarf wheat with medium early maturity. Fannin has intermediate tolerance to the current prevalent races of Leaf rust and is resistant to the current prevalent races of Stripe rust. Fannin has shown resistance to the southeastern races of Powdery mildew. Fannin is particularly well adapted in the designated area because it combines high grain yield with excellent forage production and good disease resistance.

Juvenile growth habit is semierect. Plant color is green at boot stage. The flag leaf is erect and twisted. Anther color is yellow. Auricle anthocyanin and auricle hairs are present. Waxy bloom is present on the stem, flag leaf sheath and head. The head is tapering, middense and awned. The glume at maturity is long in length and narrow in width. Shoulder shape on the glume is square with an acuminate beak. Seed shape is ovate. Brush hair length is short. Seed cheeks are rounded. Seed crease width is narrow and depth is shallow.

Fannin has been uniform and stable since 2003. Less than 0.5 of the total plants were rogued from the Breeders seed progeny increase plots in 2004. Approximately 80% of the variant plants were taller height wheat plants, approximately 10% were bronze chaffed wheat plants and approximately 10% the variant plants were awnless wheat plants.

AgriPro Wheat maintains seed stock and certified classes of Foundation, Registered and Certified. Certified seed stocks of Fannin will be available in the fall of 2005. Certified acreage is not to be published by AOSCA and certifying agencies. Plant Variety Protection is anticipated and Fannin may only be sold as a class of Certified seed.

**Neosho**
**Hard Red Winter Wheat**

Neosho is a hard red winter wheat bred and developed by AgriPro Wheat. Neosho is a tall semidwarf variety in plant height and has white chaff at maturity. It has medium maturity and excellent straw strength. It has very erect plant type, erect flag leaves and the spikes are erect at maturity. Neosho is resistant to Stem rust and Stripe rust.. Neosho is moderately resistant to Powdery mildew, Septoria speckled leaf blotch, Tan spot, Leaf rust and Wheat Streak Mosaic virus. Neosho has intermediate reaction to Wheat Spindle Streak Mosaic virus. Neosho is susceptible to Hessian Fly. Neosho is best adapted to the north-central and north-eastern areas of Oklahoma, central and eastern Kansas and the south-eastern area of Nebraska.

Juvenile growth habit is semierect. Plant color at boot stage is blue green. Flag leaf at boot stage is erect and twisted. Waxy bloom is present on the head, stem and flag leaf sheath. Anther color is yellow. Head shape is tapering, middense and awned. Glumes are glabrous, midwide in width and short in length with oblique shoulders and acute beaks. Seed shape is ovate. Brush hairs are short in length and occupy a large area of the seed tip. Seed crease depth is shallow and width is midwide. Seed cheeks are rounded.

Neosho has been uniform and stable since 2003. Less than 0.8% of the plants were rogued from the Breeders Seed increase in 2004. Approximately 80% of the variant plants were taller height wheat plants, approximately 10% were bronze chaffed wheat plants, and approximately 10% the variant plants were awnless wheat plants.

AgriPro Wheat maintains seed stock and certified classes of Foundation, Registered and Certified. Certified seed stocks of Neosho will be available in the fall of 2006. Certified acreage is not to be published by AOSCA and certifying agencies. Plant Variety Protection is anticipated and Neosho may only be sold as a class of Certified seed.

**Panola**
**Soft Red Winter Wheat**

Panola is a soft red winter wheat bred and developed by AgriPro Wheat. Panola is a medium height wheat with medium-early season heading and maturity. Panola has shown moderate resistance to field races of Stripe rust and Powdery mildew. Panola's grain yield data indicates that it is adapted to most of the midsouthern and southeastern soft wheat areas.

Juvenile growth habit is semierect. Plant color at boot stage is green. Flag leaf at boot stage is erect to 90 degree angle from the stem and twisted. Waxy bloom is present on the head, stem and flag leaf sheath. Anther color is yellow. Head shape is strap, middense and awned. Glumes are glabrous, midwide in width and midlong in length with oblique shoulders and medium length acuminate beaks. Seed shape is ovate. Brush hairs are midlong to long in length and occupy a midsized area of the seed tip. Seed crease depth is shallow and width is narrow. Seed cheeks are rounded.

Panola has been uniform and stable since 2003. Less than 0.8% of the plants were rogued from the Breeders seed increase in 2004. Approximately 90% of the rogued variant plants were taller height wheat plants (8 to 15 cm) and 10% were awnletted plants.

AgriPro Wheat maintains seed stock and certified classes of Foundation, Registered and Certified. Certified seed stocks of Panola will be available in the fall of 2005. Certified acreage is not to be published by AOSCA and certifying agencies. Plant Variety Protection is anticipated and Panola may only be sold as a class of Certified seed.

**KS02HW34 (experimental designation)**
**Hard Red Winter Wheat**

KS02HW34 is a hard white winter wheat selected from the cross Trego/ KS84063-9-39-3-8w. The cross was made during the winter of 1995-96 at the KSU Agricultural Research Center-Hays. The $F_1$ through $F_3$ generations were all grown at Hays from 1997 to 1999. In 1999 a single $F_3$ head was selected and grown at Hays in 2000 as a $F_4$ headrow. A single head was selected from the F4 in 2000 and grown as an $F_5$ headrow in 2001. Seed from the $F_5$ was subsequently increased as KS02HW34 in 2002. The pedigree method of breeding was used.

KS02HW34 will be used as a bread wheat and is probably best adapted to dryland production in western Kansas. It has been tested in replicated performance tests in Kansas since 2003. It was tested region wide in the 2004 Southern Regional Performance Nursery and in the 2004 Kansas Performance Tests with Winter Wheat Varieties. KS02HW34's susceptibility to soilborne mosaic virus will keep it from moving into central Kansas.

KS02HW34 is very similar to Trego morphologically. It is a non-shattering semi-dwarf with white chaff. It's plant height and maturity are similar to Trego. Variants found in KS02HW34 during its increase are red chaffed plants and slightly taller plants which were found in no more than 1 in 5,000 plants.

KS02HW34 carries leaf rust resistance that is different from that of Trego. In 2004 leaf rust ratings from southern Texas nurseries gave Trego a 30S rating while KS02HW34 rated 10R. KS02HW34 is also resistant to the prevalent races of stripe rust in the Great Plains. It was resistant in field nurseries in both 2001 and 2003 while Trego was rated susceptible both years. KS02HW34 is susceptible to Soilborne mosaic virus (based on field screening nurseries in Kansas and Oklahoma) and Hessian fly (based on USDA screening tests at Manhattan).

Breeder's seed will be maintained by intensely rogueing foundation production fields and by re-purification through head rows at the KSU Agricultural Research Center-Hays. Foundation, Registered, and Certified classes of seed will be recognized. Foundation seed could first be offered for sale in August of 2005. Plant variety Protection will be applied for and the "Certification Option" elected.

**XW03R (experimental designation)**
**Soft Red Winter Wheat**

XW03R is a soft red winter wheat that was developed by Pioneer Hi-Bred International, Inc. using a modified pedigree selection breeding method. It has shown adaptation to the northern soft wheat regions based on tests conducted in Arkansas, Kentucky, Missouri, Illinois, Indiana, Ohio, Michigan, Maryland and Ontario, Canada.

The coleoptile color of XW03R is white and the juvenile growth habit is semi-erect. Leaf color at booting is green and the flag leaf is recurved, twisted and has a slight waxy bloom. Auricle color is white. Anther color is yellow. Spikes of XW03R are awned, mid-dense, oblong in shape and inclined at maturity. The glume beak shape is acute. XW03R has shown no variants other than what would normally be expected due to environment.

XW03R has very good resistance to leaf rust in the northern Corn Belt. It has good resistance to the prevalent races of powdery mildew and good resistance to the complex of organisms that incite leaf blights including Septoria tritici blotch, Stagnospora nodorum leaf blotch and tan spot. XW03R has moderate resistance to wheat spindle streak mosaic virus and slightly below average resistance to soilborne mosaic virus.

XW03R has been susceptible to Hessian fly in tests conducted by the Dept. of Entomology, Purdue University, in conjunction with the USDA-ARS Insect and Weed Control Unit.

The breeder, foundation, and registered seed classes will be maintained and controlled by the Pioneer Parent Wheat Seed headquarters at Mt. Vernon, IN. Foundation seed will be initially produced from breeders seed, and thereafter foundation seed will be produced from foundation seed: maintaining the specific identity and purity of the variety as released by the breeding department. Registered seed will be grown from foundation or breeder seed, and maintained at a purity level satisfactory to Pioneer Parent Seed Operations, Supply Management, or the appropriate certifying agency. Production of certified seed will be controlled by Supply Management, Pioneer Hi-Bred Int'l., Inc. Certified seed of XW03R will potentially first be offered for sale in the fall of 2005. Application for Plant Variety Protection is anticipated and the certification option will not be chosen. Certified acreage is not to be published by AOSCA and certifying agencies.

**XW03U (experimental designation)**
**Soft Red Winter Wheat**

XW03U is a soft red winter wheat that was developed by Pioneer Hi-Bred International, Inc. using a modified pedigree selection breeding method. It has shown adaptation to the northern soft wheat regions based on tests conducted in Arkansas, Kentucky, Missouri, Illinois, Indiana, Ohio, Michigan, Maryland and Ontario, Canada.

The coleoptile color of XW03U is white and the juvenile growth habit is semi-erect. Leaf color at booting is green and the flag leaf is erect, twisted and has a slight waxy bloom. Auricle color is white. Anther color is yellow. Spikes of XW03U are awned, mid-dense, oblong in shape and nodding at maturity. The glume beak shape is acuminate and the beak length is very long. XW03U has shown no variants other than what would normally be expected due to environment.

XW03U has excellent resistance to Fusarium head blight. It has very good resistance to leaf rust in the northern Corn Belt. It has moderate resistance to the prevalent races of powdery mildew and moderate resistance to the complex of organisms that incite leaf blights including Septoria tritici blotch, Stagnospora nodorum leaf blotch and tan spot. XW03U has slightly below average resistance to wheat spindle streak mosaic virus and to soilborne mosaic virus.

XW03U has been susceptible to Hessian fly in tests conducted by the Dept. of Entomology, Purdue University, in conjunction with the USDA-ARS Insect and Weed Control Unit.

The breeder, foundation, and registered seed classes will be maintained and controlled by the Pioneer Parent Wheat Seed headquarters at Mt. Vernon, IN. Foundation seed will be initially produced from breeders seed, and thereafter foundation seed will be produced from foundation seed: maintaining the specific identity and purity of the variety as released by the breeding department. Registered seed will be grown from foundation or breeder seed, and maintained at a purity level satisfactory to Pioneer Parent Seed Operations, Supply Management, or the appropriate certifying agency. Production of certified seed will be controlled by Supply Management, Pioneer Hi-Bred Int'l., Inc. Certified seed of XW03U will potentially first be offered for sale in the fall of 2005. Application for Plant Variety Protection is anticipated and the certification option will not be chosen. Certified acreage is not to be published by AOSCA and certifying agencies**.**

**XW03X (experimental designation)**
**Soft Red Winter Wheat**

XW03X is a soft red winter wheat that was developed by Pioneer Hi-Bred International, Inc. using a modified pedigree selection breeding method. It has shown adaptation to the northern soft wheat regions based on tests conducted in Arkansas, Kentucky, Missouri, Illinois, Indiana, Ohio, Michigan, Maryland and Ontario, Canada.

The coleoptile color of XW03X is red and the juvenile growth habit is semi-erect. Leaf color at booting is green and the flag leaf is erect, twisted and has a slight waxy bloom. Auricle color is white. Anther color is yellow. Spikes of XW03X are awned, mid-dense, tapering in shape and inclined at maturity. The glume beak shape is acuminate. XW03X has shown no variants other than what would normally be expected due to environment.

XW03X has excellent resistance to stripe rust. It has good resistance to the prevalent races of powdery mildew and good resistance to the complex of organisms that incite leaf blights including Septoria tritici blotch, Stagnospora nodorum leaf blotch and tan spot. XW03X has moderate resistance to wheat spindle streak mosaic virus and good resistance to soilborne mosaic virus. It has slightly below average resistance to Fusarium head blight and leaf rust in the mid-south region.

XW03X has been susceptible to Hessian fly in tests conducted by the Dept. of Entomology, Purdue University, in conjunction with the USDA-ARS Insect and Weed Control Unit.

The breeder, foundation, and registered seed classes will be maintained and controlled by the Pioneer Parent Wheat Seed headquarters at Mt. Vernon, IN. Foundation seed will be initially produced from breeders seed, and thereafter foundation seed will be produced from foundation seed: maintaining the specific identity and purity of the variety as released by the breeding department. Registered seed will be grown from foundation or breeder seed, and maintained at a purity level satisfactory to Pioneer Parent Seed Operations, Supply Management, or the appropriate certifying agency. Production of certified seed will be controlled by Supply Management, Pioneer Hi-Bred Int'l., Inc. Certified seed of XW03X will potentially first be offered for sale in the fall of 2005. Application for Plant Variety Protection is anticipated and the certification option will not be chosen. Certified acreage is not to be published by AOSCA and certifying agencies.

**B980006 (experimental designation)**
**Soft Red Winter Wheat**

B980006 is a soft red winter wheat that is adapted to and will be marketed in the lower Corn Belt, throughout the northern mid south and into the east coast area. Testing in Illinois, Missouri, Tennessee, Kentucky, Arkansas, Louisiana, Mississippi, Georgia, South Carolina, North Carolina, Virginia and Pennsylvania for the past 4 years has shown that B980006 is adapted in these areas. B980006 was tested in the Uniform Eastern Soft Red Winter Wheat Nursery and the Uniform Southern Soft Red Winter Wheat Nursery in the2003-2004 season. B980006 has competitive yields and good agronomic characteristics in the adapted area when compared to our current varieties.

The coleoptile color of B980006 is white with a semi-erect juvenile plant growth habit. Plant color at booting is green and the flag leaf is recurved, twisted and has a waxy bloom. Maturity is mid-season averaging the same maturity as COKER 9474. Plant height is medium tall at 94 cm, which is 8 cm taller than COKER 9474. Heads are apically awnletted, tapering and inclined at maturity. Variants may include one or more of the following in any combination, taller, awned, bronze or later type, which may be expressed up to 1%.

B980006 is resistant to moderately resistant to prevalent field races of stripe rust in the mid south and the east coast areas. It is moderately resistant to *Septoria tritici*. B980006 is moderately resistant to prevalent field races of leaf rust in the mid south and east coast areas and to prevalent field races of powdery mildew in the east coast area. B980006 is resistant to soil borne mosaic virus and moderately resistant wheat spindle streak virus. B980006 is susceptible Hessian fly. Acceptable milling qualities as compared to standards COKER 9543 and COKER 9184 have been shown; softness equivalent and cookie diameter are lower than check averages.

Breeder seed of B980006 will be grown each year by Syngenta Seeds, Inc. seedstock personnel to produce foundation seed. A portion of breeder seed will be kept in cold storage at Bay, AR to be used for purification if contamination of breeder seed occurs. Syngenta Seeds, Inc. will be responsible for breeder, foundation and registered seed classes. B980006 will be marketed under the Syngenta Seeds TGN (Two Great Names) grower/dealer network. The TGN dealers will produce and sell certified seed. Registered seed is anticipated to be sold in the fall of 2005 with certified sales to follow in the fall of 2006.

Plant variety protection Title V is anticipated. Acreage is requested not to be published by AOSCA and certified seed agencies.

**B980416 (experimental designation)**
**Soft Red Winter Wheat**

B980416 is a soft red winter wheat that is adapted to and will be marketed in the lower Corn Belt, throughout the mid south and into the east coast area. Testing in Illinois, Missouri, Tennessee, Kentucky, Arkansas, Louisiana, Mississippi, Georgia, South Carolina, North Carolina, Virginia and Pennsylvania for the past 4 years has shown that B980416 is adapted in these areas. B980416 was tested in the Uniform Southern Soft Red Winter Wheat Nursery in 2002-2003 and 2003-2004 seasons. B980416 has competitive yields and good agronomic characteristics in the adapted area when compared to our current varieties.

The coleoptile color of B980416 is red with a semi-erect juvenile plant growth habit. Plant color at booting is green to blue-green and the flag leaf is erect, twisted and has a waxy bloom. Maturity is mid-season averaging 4 days later than AGS 2000. Plant height is medium short at 86 cm, which is 5 cm shorter than AGS 2000. Heads are apically awnletted, tapering and inclined at maturity. Variants may include one or more of the following in any combination, taller, awned, bronze or later type, which may be expressed up to 1%.

B980416 is moderately resistant to moderately susceptible to prevalent field races of stripe rust in the mid south and susceptible to prevalent field races in the east coast areas. It is moderately resistant to moderately susceptible to *Septoria tritici* and prevalent field races of leaf rust in the mid south and east coast areas. B980416 is moderately resistant to prevalent field races of powdery mildew in the east coast area. B980416 is resistant to soil borne mosaic virus and moderately resistant to wheat spindle streak virus. B980416 has shown moderate resistance to *Fusarium*. B980416 is resistant to Hessian fly biotype E. Acceptable milling and baking qualities as compared to standards COKER 9543 and COKER 9184 have been shown.

Breeder seed of B980416 will be grown each year by Syngenta Seeds, Inc. seedstock personnel to produce foundation seed. A portion of breeder seed will be kept in cold storage at Bay, AR to be used for purification if contamination of breeder seed occurs. Syngenta Seeds, Inc. will be responsible for breeder, foundation and registered seed classes. B980416 will be marketed under the Syngenta Seeds TGN (Two Great Names) grower/dealer network. The TGN dealers will produce and sell certified seed. Registered seed is anticipated to be sold in the fall of 2005 with certified sales to follow in the fall of 2006.

Plant variety protection Title V is anticipated. Acreage is requested not to be published by AOSCA and certified seed agencies.

**B980582 (experimental designation)**
**Soft Red Winter Wheat**

B980582 is a soft red winter wheat that is adapted to and will be marketed in the lower Corn Belt, throughout the mid south and into the upper east coast area. Testing in Illinois, Missouri, Tennessee, Kentucky, Arkansas, Louisiana, Mississippi, Georgia, South Carolina, North Carolina, Virginia and Pennsylvania for the past 4 years has shown that B980582 is adapted in these areas. B980582 was tested in the Uniform Southern Soft Red Winter Wheat Nursery and the Uniform Eastern Soft Red Winter Wheat Nursery in 2002-2003 and 2003-2004 seasons, respectively. B980582 has competitive yields and good agronomic characteristics in the adapted area when compared to our current varieties.

The coleoptile color of B980582 is white with a semi-erect juvenile plant growth habit. Plant color at booting is green and the flag leaf is recurved, twisted and has a waxy bloom. Maturity is early to mid-season averaging 2 days earlier than COKER 9663. Plant height is medium tall at 94 cm, which is the same height as Patton. Heads are apically awnletted, tapering and inclined at maturity. Variants may include one or more of the following in any combination, taller, awned, bronze or later type, which may be expressed up to 1%.

B980582 is moderately resistant to moderately susceptible to prevalent field races of stripe rust in the mid south and susceptible to prevalent field races in the east coast area. It is moderately resistant to moderately susceptible to *Septoria tritici* and prevalent field races of powdery mildew in the mid south and east coast areas. B980582 is moderately resistant to prevalent field races of leaf rust in the east coast area. B980582 is resistant to soil borne mosaic virus and moderately resistant to wheat spindle streak virus. B980582 has shown moderate resistance to *Fusarium*. B980582 is susceptible to Hessian fly. Acceptable milling and baking qualities as compared to standards COKER 9543 and COKER 9184 have been shown.

Breeder seed of B980582 will be grown each year by Syngenta Seeds, Inc. seedstock personnel to produce foundation seed. A portion of breeder seed will be kept in cold storage at Bay, AR to be used for purification if contamination of breeder seed occurs. Syngenta Seeds, Inc. will be responsible for breeder, foundation and registered seed classes. B980582 will be marketed under the Syngenta Seeds TGN (Two Great Names) grower/dealer network. The TGN dealers will produce and sell certified seed. Registered seed is anticipated to be sold in the fall of 2005 with certified sales to follow in the fall of 2006.

Plant variety protection Title V is anticipated. Acreage is requested not to be published by AOSCA and certified seed agencies.

**B980696 (experimental designation)**
**Soft Red Winter Wheat**

B980696 is a soft red winter wheat that is adapted to and will be marketed in the lower Corn Belt, throughout the mid south and into the upper east coast area. Testing in Illinois, Missouri, Tennessee, Kentucky, Arkansas, Louisiana, Mississippi, Georgia, South Carolina, North Carolina, Virginia and Pennsylvania for the past 4 years has shown that B980696 is adapted in these areas. B980696 was tested in the Uniform Eastern Soft Red Winter Wheat Nursery and the Uniform Southern Soft Red Winter Wheat Nursery in the2002-2003 and 2003-2004 seasons. B980696 has competitive yields and good agronomic characteristics in the adapted area when compared to our current varieties.

The coleoptile color of B980696 is white with a semi-erect juvenile plant growth habit. Plant color at booting is green and the flag leaf is recurved, twisted and has a waxy bloom. Maturity is mid-season averaging the 4 days later than COKER 9474. Plant height is medium tall at 91 cm, which is 3 cm shorter than Patton. Heads are apically awnletted, tapering and inclined at maturity. Variants may include one or more of the following in any combination, taller, awned, bronze or later type, which may be expressed up to 1%.

B980696 is resistant to moderately resistant to prevalent field races of stripe rust in the mid south and the east coast areas and moderately resistant to prevalent races of leaf rust in the mid south and the east coast areas. It is moderately resistant to moderately susceptible to *Septoria tritici* and to prevalent field races of powdery mildew in the east coast area. B980696 is moderately resistant to wheat spindle streak virus and soil borne mosaic virus. B980696 is susceptible Hessian Fly. Acceptable milling qualities as compared to standards COKER 9543 and COKER 9184 have been shown. Cookie diameter and softness equivalent are lower than check.

Breeder seed of B980696 will be grown each year by Syngenta Seeds, Inc. seedstock personnel to produce foundation seed. A portion of breeder seed will be kept in cold storage at Bay, AR to be used for purification if contamination of breeder seed occurs. Syngenta Seeds, Inc. will be responsible for breeder, foundation and registered seed classes. B980696 will be marketed under the Syngenta Seeds TGN (Two Great Names) grower/dealer network. The TGN dealers will produce and sell certified seed. Registered seed is anticipated to be sold in the fall of 2005 with certified sales to follow in the fall of 2006.

Plant variety protection Title V is anticipated. Acreage is requested not to be published by AOSCA and certified seed agencies.

**CA-902-701 (experimental designation)**
**Hard Red Spring Wheat**

CA-902-701 is a hard red spring wheat adapted to the Red River Valley of North Dakota and Minnesota that was bred and developed by WestBred LLC. It was selected from the cross *"Keystone x Granite"* made in 2000. CA-902-701 was derived from a single $F_5$ plant grown in Yuma, AZ in 2001-2002 that was advanced and evaluated as a $F_6$ bulk in 2002 in Casselton, ND. The $F_7$ was increased in Yuma, AZ in 2002-2003, the $F_8$ bulk was planted and evaluated as a 1/5 acre increase in Casselton, ND in 2003 and the $F_9$ increased as breeders seed on *5* acres in Fisher, MN in 2004.

CA-902-70 I is a good standing, early maturing wheat that can achieve high yield of high test weight and high protein grain under intensive management. CA-902-701 is resistant to stem rust and moderately resistant to moderately susceptible to leaf rust and foliar diseases (tan spot and Septoria tritici). CA-902-701 has a moderately susceptible reaction to Fusarium head blight similar to the standard check variety *2375.* Quality of CA-902-701 is good based on test weight, protein and flour SDS sedimentation values.

CA-902-701 is an awned, early maturing, semi-dwarf variety with mid-dense, erect, oblong shaped spikes. Awns are mid-long and light tan in color. The flowering glumes are light tan in color, mid-long with square shoulders and long, acuminate beaks. The seeds are red and ovate with a large brush. CA-902-701 may contain a tall variant that is 10-20 cm taller than the general population at a frequency of 1 in 10,000.

Westbred LLC will maintain breeder and Foundation seed as needed by growing head row purification increases. The certified classes of seed shall be Foundation, Registered and Certified. Foundation seed will be produced in 2005 and registered seed may be offered for sale in the spring of 2006. Application will be made for protection under the Plant Variety Protection Act and the certification option will not be selected. Acreage of CA-902-701 is not to be published by AOSCA and certifying agencies.

**Santa Fe**
**Hard Red Winter Wheat**

Santa Fe is a hard red winter wheat variety developed by WestBred LLC of Haven Kansas, and tested as experimental G980039. Santa Fe originated from the cross G1878 x Jagger made in 1993, and was selected through traditional pedigree breeding methods. Breeders seed was derived from the bulk of 50 F8 head-rows harvested in 2001. Santa Fe is well adapted to the southern Great Plains for grain production.

Santa Fe has semi-erect juvenile growth habit and green leaf color at boot stage. The flag leaf is erect, twisted, and has no waxy bloom. The auricle color is white. Santa Fe has a heading date 1 day later than Jagger. The anthers are yellow, and the internodes are hollow. The stem color at maturity is white. Plant height averages 2.5 cm shorter than Jagger. The spike shape is tapering, the density is mid-dense, and the position at maturity is inclined. Santa Fe is awned, with mid-long, brown awns. At maturity, the glumes are long, with elevated shoulders. The glume color is tan with a gray brown upper half. The glume beaks are medium length and acuminate. The seed is red, ovate, and has a medium size brush. The phenol reaction is black brown.

Slightly taller (5 cm) variants may occur at a frequency of 1 in 1000.

Santa Fe is moderately resistant to the current races of leaf rust prevalent in the southern plains, and resistant to the current race of stripe rust. It is resistant to soil borne mosaic virus, moderately resistant to septoria, and moderately resistant to tan spot. It is susceptible to powdery mildew, greenbug, Hessian fly, and Russian wheat aphid.

The milling and baking quality of Santa Fe is acceptable.

300 heads have been retained from breeder's seed plots, which will be used to re-constitute the variety under irrigation in Colorado and maintain a pure seed source. This cycle will be repeated as needed. Seed classes to be recognized include Foundation, Registered, and Certified.

We anticipate certified seed sales in August, 2005.

Application for protection through the Plant Variety Protection Act will be made. The Certification Option will be elected.

Acreages may be published by AOSCA and certifying agencies.