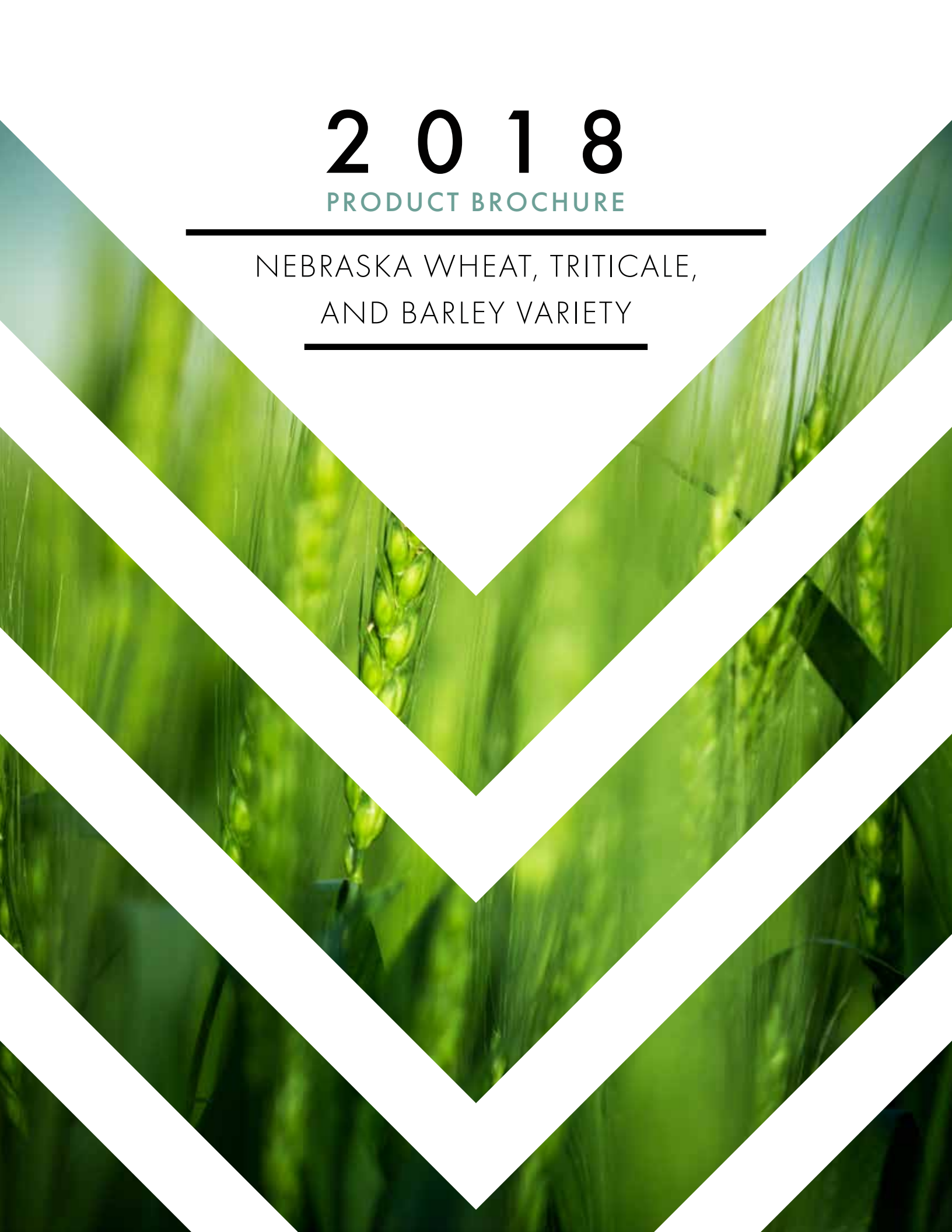


2 0 1 8

PRODUCT BROCHURE

NEBRASKA WHEAT, TRITICALE,
AND BARLEY VARIETY





BARLEY PRODUCTS

Winter Barley: The two available barley lines were bred predominantly as feed barley where the grain will be fed to animals. Both lines are 6-row, hulled barley. There is no information on their forage producing ability or their ability to be malted for malt-base products (e.g. beer). It should be recognized that when it comes to winterhardiness, winter rye is more hardy than winter wheat which is more hardy than winter triticale which is more hardy than winter barley. However, these lines have survived the Nebraska winter in most years. In areas south of Nebraska, they should have adequate winterhardiness for consistent production. In a normal winter, the top leaves will be burned off and wind may blow the leaves away leaving what looks like a bare field. However, barley often emerges in the spring and flourishes. It is easy to think winter barley has winterkilled when only the top leaves have died. In Nebraska, there are few diseases that attack barley and winter survival is the main concern.

NB10425

ND17687/SC0110475//CIHO2457

Compared to currently available winter barely lines grown in the Great Plains, NE10425 is similar in maturity, generally shorter in plant height, has weaker straw strength (more prone to lodging), similar in test weight and winter survival, and has high grain yield.

NB10444

PEDIGREE UNKNOWN

Compared to currently available winter barely lines grown in the Great Plains, NE10444 is similar in maturity, generally shorter in plant height, similar in straw strength, superior in test weight, and similar in winter survival and grain yield.

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WORTH THE WAIT: NHH144913-3 TWO GENE CLEARFIELD® WHEAT

We are waiting for its first year in the State Variety Trial to be harvested and analyzed, but NHH144913-3 looks like a winner. It will be licensed to NuPride Genetics as per our agreement with BASF which has already given its approval to release the line. The pedigree of NHH144913-3 is SETTLER CL/NE07457//BRAWL CL Plus where the pedigree of NE07457 is CO970498 (=Ogallala/Halt)/NE00403 (=PRONGHORN/ARLIN//ABILENE). NHH144913-3 seems to have very broad adaptation to the Northern Great Plains where it was the third highest yielding line in the 2017 Northern Regional Performance Nursery. It is resistant to wheat soilborne mosaic virus, moderately resistant to stem and stripe rust, moderately susceptible to leaf rust, and susceptible to Hessian fly. It is genetically lower in test weight and acceptable for baking quality based upon the tests so far. Certified seed will be available in 2019.

Clearfield® and Headline® are registered trademarks of BASF Agrochemical Products B.V.

COMING SOON NUPRIDE GENETICS SIEGE WHEAT

In 2018, the decision was made to release NE12561 (NI04420/NE00403) where the pedigree of NI04420 is NE96644 (=ODESSKAYAP./CODY)//PAVON/*3SCOUT66/3/WAHOO SIB and the pedigree of NE00403 is PRONGHORN/ARLIN//ABILENE to NuPride Genetics. It will be marketed as Siege Hard Red Winter Wheat. It is a narrowly adapted wheat to Eastern and Southcentral Nebraska. Its grain yield, disease resistance, and straw strength make it particularly attractive. It is resistant or moderately resistant to leaf rust, stripe rust, stem rust and wheat soilborne mosaic virus. It is also resistant to the current field races of Hessian fly. It is a semi-dwarf with very good straw strength and consistent high grain yield where it has adapted good test weight. Its end use quality is acceptable. Certified seed will be available in 2019 to 2020.



NuPride Genetics is a network of experienced seed producers who are members of the Nebraska Crop Improvement Association. The mission of this network of growers is to supply and cooperate in marketing a unique line of certified and premium quality agricultural seeds, for the benefit of crop producers, seed producers, and plant breeding programs. For more information please visit <http://www.necrop.org/WHEAT.htm>

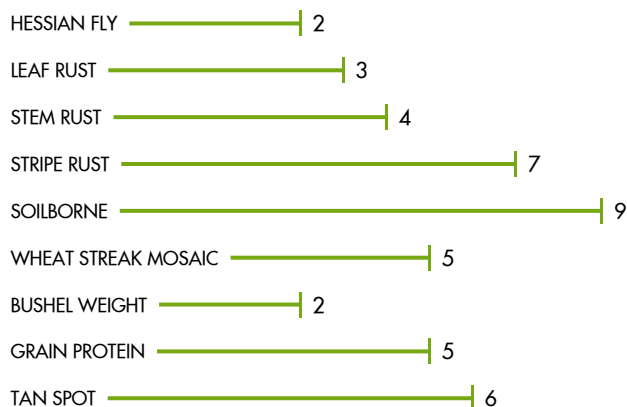
OVERLAND

Husker Genetics OVERLAND Brand (NE01643) - Husker Genetics OVERLAND Brand is an awned, white-glumed, semi-dwarf wheat cultivar. The mature plant height of Overland is approximately 33 inches. It has good straw strength. The winter hardiness is good to very good. Overland is moderately susceptible to stem rust but resistant to the most prevalent race of stem rust. It is moderately resistant to leaf rust, stripe rust, and Hessian fly. Overland also is more tolerant to Fusarium head blight than many widely grown lines. It is susceptible to wheat soilborne mosaic virus, barley yellow dwarf virus, and wheat streak mosaic virus. Overland was developed cooperatively by the Nebraska Agricultural Experiment Station and the USDA-ARS. Non-complementary varieties include Arapahoe, Millennium, Niobrara, and Wahoo. U.S. Protected Variety (PVP 1994). Certificate No. 200700333. Husker Genetics Brand Overland can only be sold as a class of certified seed.

AGRONOMIC FEATURES

| | |
|-------------------|---|
| MATURITY | 4 |
| WINTER HARDINESS | 5 |
| STRAW STRENGTH | 5 |
| PLANT HEIGHT | 5 |
| COLEOPTILE LENGTH | 4 |

DISEASE RATINGS



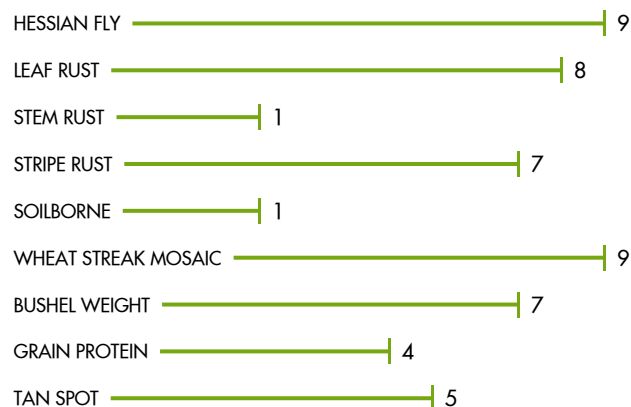
WESLEY

Wesley is a moderately early maturing, moderately short height variety with excellent straw strength. Wesley is bronze chaffed. Winter hardiness is good. Wesley was derived from the cross Sumner sib (Plainsman V/Odesskaya 51)//Colt/Cody. It was developed by the USDA-ARS in cooperation with Nebraska and co-released by those institutions with South Dakota. Non-complementary varieties include Karl and Karl 92.

AGRONOMIC FEATURES

| | |
|-------------------|---|
| MATURITY | 3 |
| WINTER HARDINESS | 4 |
| STRAW STRENGTH | 5 |
| PLANT HEIGHT | 2 |
| COLEOPTILE LENGTH | 1 |

DISEASE RATINGS



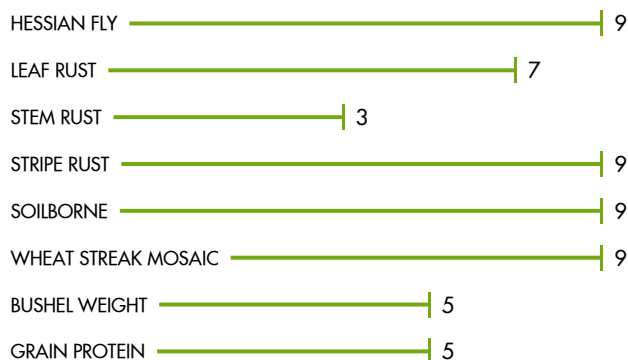
PRONGHORN

Pronghorn is a tall variety of moderately early maturity with good tillering ability and moderately strong straw. It has superior stem rust resistance. Pronghorn has a long coleoptile, very good early spring regrowth, and good winter hardiness. The grain has good test weight patterns and very acceptable milling/baking qualities. Pronghorn was developed by Nebraska and the USDA-ARS from the cross Centura/Dawn//Colt sib. Non-complementary varieties include Antelope, Goodstreak, Ike, and Loreda.

AGRONOMIC FEATURES

| | |
|-------------------|---|
| MATURITY | 4 |
| WINTER HARDINESS | 4 |
| STRAW STRENGTH | 3 |
| PLANT HEIGHT | 9 |
| COLEOPTILE LENGTH | - |

DISEASE RATINGS



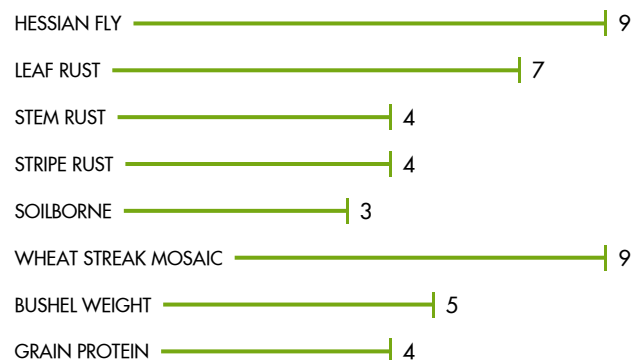
ROBIDOUX

Husker Genetics ROBIDOUX Brand (NI04421) - Husker Genetics ROBIDOUX Brand NI04421 was co-developed by the University of Nebraska and the USDA-ARS. Robidoux was selected from the cross NE96644I\Wahoo (sib) where the pedigree of NE96644 is Odesskaya P/ Cody//Pavon 76/*3 Scoul66 using a modified bulk breeding method. Robidoux is moderately late in maturity and is best adapted to western rained areas where drought is common and irrigated production sites. It is moderately resistant to stripe rust and moderately resistant to moderately susceptible to stem rust. It is moderately susceptible to leaf rust. It is susceptible to Hessian fly and wheat streak mosaic virus and is susceptible to common bunt. Non-complementary varieties include Millennium and Wahoo. U.S. Protected Variety (PVPA 1994). Certificate No. 201100398. Robidoux can only be sold as a class of certified seed.

AGRONOMIC FEATURES

| | |
|-------------------|---|
| MATURITY | 3 |
| WINTER HARDINESS | 4 |
| STRAW STRENGTH | 5 |
| PLANT HEIGHT | 5 |
| COLEOPTILE LENGTH | 6 |

DISEASE RATINGS



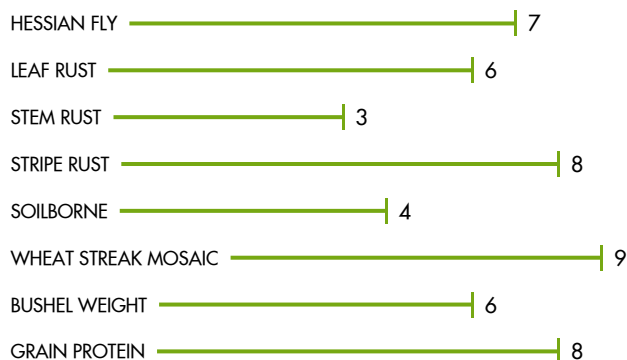
PANHANDLE

Husker Genetics PANHANDLE Brand (NE05548) - Husker Genetics PANHANDLE Brand is an awned, ivory-glumed semi-dwarf wheat with a short coleoptile, phenotypically; however, it is a tall wheat that possesses good yield potential and straw strength. It is moderately late in maturity, similar to Overland, and height is approximately 1 inch shorter than Goodstreak. Panhandle is resistant to soilborne wheat mosaic virus and stem rust. It is moderately susceptible to leaf rust and stripe rust and susceptible to barley yellow dwarf virus and wheat streak mosaic virus. It was developed cooperatively by the Nebraska Agricultural Experiment Station and the USDA-ARS. Panhandle was selected from the cross NE97426/NE98574 where the pedigree of NE97426 is BRIGANTINA/2*ARAPAHOE and the pedigree of NE98574 is CO850267/RAWHIDE.

AGRONOMIC FEATURES

| | |
|-------------------|---|
| MATURITY | 4 |
| WINTER HARDINESS | 4 |
| STRAW STRENGTH | 4 |
| PLANT HEIGHT | 7 |
| COLEOPTILE LENGTH | 7 |

DISEASE RATINGS



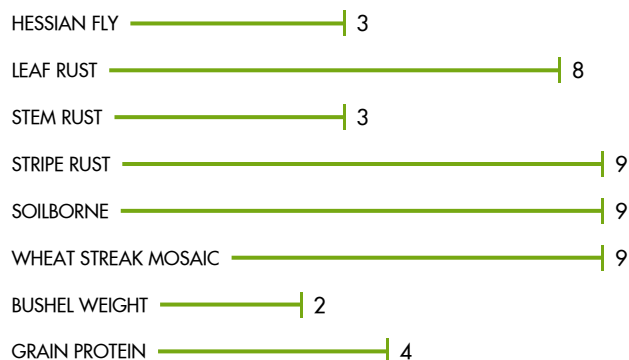
GOODSTREAK

Goodstreak is medium in maturity. It has a long coleoptile. The mature plant height of Goodstreak is 38 inches. It has moderate straw strength. The winter hardiness of Goodstreak is good to very good. Goodstreak is moderately resistant to stem and stripe rust and Hessian fly. It is susceptible to leaf rust and wheat streak mosaic virus. Goodstreak was evaluated as NE97465 in Nebraska yield nurseries. It was selected from the cross SD3055/KS88H164//NE89646. Goodstreak was developed cooperatively by the Nebraska Agricultural Experiment Station and the USDA-ARS and released by the developing institutions and the Wyoming Agricultural Experiment Station. Non-complementary varieties include Pronghorn. U.S. Protected Variety (PVPA 1994). Certificate No. 200300281. Goodstreak can only be sold as a class of certified seed.

AGRONOMIC FEATURES

| | |
|-------------------|---|
| MATURITY | 3 |
| WINTER HARDINESS | 3 |
| STRAW STRENGTH | 4 |
| PLANT HEIGHT | 8 |
| COLEOPTILE LENGTH | 8 |

DISEASE RATINGS



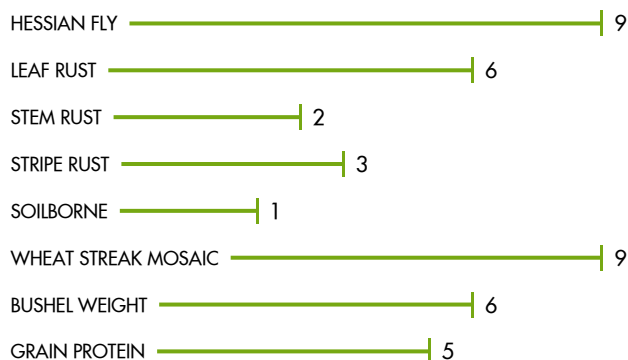
FREEMAN

Husker Genetics FREEMAN Brand (NE06545) - Husker Genetics FREEMAN Brand is a semi-dwarf wheat, moderately early in maturity, and approximate mature plant height of 34 inches. It has moderate straw strength and good winter hardiness. Husker Genetics Freeman Brand is resistant to Soilborne wheat mosaic virus and moderately resistant to moderately susceptible to stem rust, leaf rust, and stripe rust. It is moderately susceptible to Fusarium head blight and susceptible to Hessian fly, barley yellow dwarf virus, and wheat streak mosaic virus. Husker Genetics Freeman Brand was developed cooperatively by the Nebraska Agricultural Experiment Station and the USDA-ARS. It was selected from the cross KS92-946-B-15-IIAlliance where the pedigree of KS92-946-B-15-1 is AB186*3414/Jagger/Karl92.

AGRONOMIC FEATURES

| | |
|--------------------------|---|
| MATURITY | 3 |
| WINTER HARDINESS | 4 |
| STRAW STRENGTH | 3 |
| PLANT HEIGHT | 2 |
| COLEOPTILE LENGTH | 2 |

DISEASE RATINGS



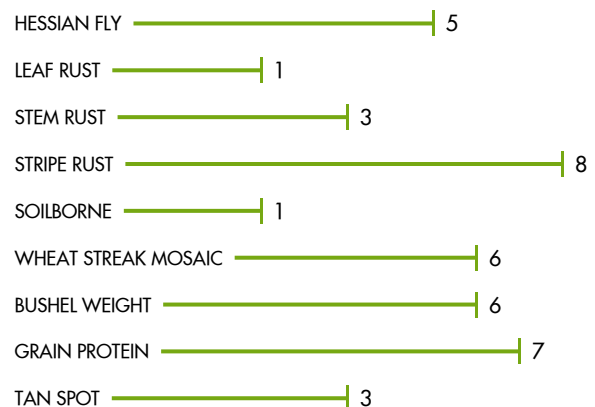
CAMELOT

Camelot is a hard red winter wheat cultivar selected from the cross KS91H184/Arlin Sib//KS91HW29/3/NE91631/4/VBF0168. Camelot is a medium late maturing semi-dwarf wheat with a plant height similar to Millennium. Camelot has good straw strength and good winter hardiness. Camelot is moderately resistant to stem, leaf, stripe rust, and Hessian fly. It also is slightly more tolerant to Fusarium head blight (scab). It is moderately susceptible to wheat soil borne mosaic virus and susceptible to barley yellow dwarf virus and wheat streak mosaic virus. Camelot was developed cooperatively by the Nebraska Agricultural Experiment Station and the USDA-ARS. It will be marketed by NuPride Genetic Network. Non-complementary varieties include Hatcher and 2137. U.S. Protected Variety (PVPA 1994). Certificate No. 200900314. Camelot can only be sold as a class of certified seed.

AGRONOMIC FEATURES

| | |
|--------------------------|---|
| MATURITY | 3 |
| WINTER HARDINESS | 5 |
| STRAW STRENGTH | 5 |
| PLANT HEIGHT | 3 |
| COLEOPTILE LENGTH | 5 |

DISEASE RATINGS



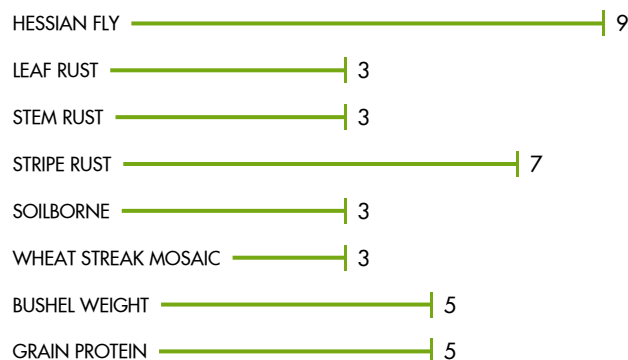
INFINITY CL

Infinity CL is a medium maturing, semi-dwarf variety selected from the cross Windstar//Millennium/Above. The mature plant height is shorter than Millennium and taller than Wesley. Infinity CL is an awned, white-glumed cultivar with moderate straw strength, similar to Wahoo, but worse than Wesley. It is moderately resistant to stem rust, leaf rust, and stripe rust. It is susceptible to Hessian fly and Wheat Soilborne Mosaic virus. Infinity was developed and released by the University of Nebraska Agricultural Experiment Station. The Stewardship Program requires the grower must purchase Certified Infinity CL wheat seed and must agree not to save seed for planting. Any unauthorized planting of the Infinity CL variety will be punishable under the U.S. Patent law. Infinity CL is available from NuPride Genetics Network Affiliates. U.S. Protected Variety (PVPA 1994). Certificate No. 200600172. Infinity can only be sold as a class of certified seed.

AGRONOMIC FEATURES

| | |
|--------------------------|---|
| MATURITY | 4 |
| WINTER HARDINESS | 4 |
| STRAW STRENGTH | 5 |
| PLANT HEIGHT | 7 |
| COLEOPTILE LENGTH | 4 |

DISEASE RATINGS



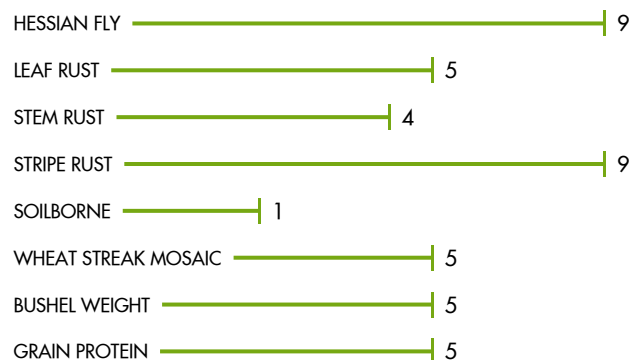
SETTLER CL

Husker Genetics SETTLER CL Brand (NH03614 CL) - Husker Genetics Settler CL Brand is a moderately late maturing, semi-dwarf hard red winter wheat selected from the cross Wesley sib//Millennium sib/Above sib. The mature plant height of Settler CL is shorter than Harding and taller than Wesley. Settler CL is an awned, ivory-glumed cultivar with moderate straw strength, less than Wesley and superior to Infinity CL. The winter hardiness is good to very good. Settler CL is moderately resistant to stem rust and wheat soilborne mosaic virus. It is moderately susceptible to leaf rust, stripe rust, and Hessian fly. Settler CL also is slightly less susceptible to Fusarium head blight than many widely grown lines. It is susceptible to wheat streak mosaic virus. Settler CL was developed and released by the University of Nebraska Agricultural Experiment Station. The Stewardship Program requires the grower must purchase Certified Settler CL wheat seed and must agree not to save seed for planting. Any unauthorized planting of the Settler CL variety will be punishable under the U.S. Patent law. Settler CL is available from NuPride Genetics Network Affiliates. U.S. Protected Variety (PVPA 1994). Certificate No. 200900104. Settler can only be sold as a class of certified seed.

AGRONOMIC FEATURES

| | |
|--------------------------|---|
| MATURITY | 3 |
| WINTER HARDINESS | 4 |
| STRAW STRENGTH | 5 |
| PLANT HEIGHT | 1 |
| COLEOPTILE LENGTH | 4 |

DISEASE RATINGS



RUTH

Husker Genetics Ruth brand (NE10589) is a new, tan glumed cultivar that is moderately late in maturity. It is a semi-dwarf variety that is approximately 33 inches in height. It has moderate straw strength and good winter hardiness. Ruth is resistant to Soilborne wheat mosaic virus, moderately resistant to stem rust, and moderately susceptible to leaf rust and stripe rust. It is moderately susceptible to Fusarium head blight and moderately resistant to moderately susceptible to Hessian fly. It is susceptible to barley yellow dwarf virus and wheat streak mosaic virus. It was developed cooperatively by the Nebraska Agricultural Experiment Station and the USDA-ARS. It was selected from the cross OK98697/Jagalene//Camelot where the pedigree of OK98697 is TAM200/HBB313E//2158. PVPA

AGRONOMIC FEATURES

| | |
|--------------------------|---|
| MATURITY | 4 |
| WINTER HARDINESS | 5 |
| STRAW STRENGTH | 4 |
| PLANT HEIGHT | 5 |
| COLEOPTILE LENGTH | 2 |

DISEASE RATINGS

| | |
|---------------------|---|
| HESSIAN FLY | 2 |
| LEAF RUST | 6 |
| STEM RUST | 1 |
| STRIPE RUST | 3 |
| SOILBORNE | 1 |
| WHEAT STREAK MOSAIC | 9 |
| BUSHEL WEIGHT | 2 |
| GRAIN PROTEIN | 5 |



WHEAT CHARACTERISTICS

AGRONOMIC CHARACTERISTICS²

REACTION³

| Variety | PVP Status ¹ | Maturity | Winter Hardiness | Straw Strength | Plant Height | Coleoptile Length | Bushel Weight | Protein Content | Hessian Fly | Leaf Rust | Stem Rust | Stripe Rust | Soil Borne Mosaic | Wheat Streak Mosaic |
|-------------|-------------------------|-----------|------------------|----------------|--------------|-------------------|---------------|-----------------|-------------|-----------|-----------|-------------|-------------------|---------------------|
| Overland | P-94 | Medium | Very Good | Very Good | Medium | - | Very Good | Good | S | MS-MR | MR | MR | S | MS-MR |
| Wesley | N | Medium | Good | Very Good | Short | Short | Good | Good | S | MS | R | MR | R | S |
| Pronghorn | N | Med Early | Good | Fair | Tall | Long | Very Good | Good | S | MS | MR | R | S | S |
| Robidoux | P-94 | Med Early | Good | Good | Medium | Medium | Good | Good | S | MS | MR | MR | R | S |
| Panhandle | P-94 | Medium | Good | Good | Med Tall | Short | Good | Good | S | MS | MR | MS-MR | MS-MR | S |
| Goodstreak | P-94 | Med Early | Good | Good | Tall | Long | Good | Good | R | MS-S | S | MR | S | S |
| Freeman | P-94 | Med Early | Good | Good | Short | Short | Good | Good | S | MS | MR | MR | R | S |
| Camelot | P-94 | Medium | Very Good | Very Good | Medium | Medium | Good | Good | S | MR | MR | MR | R | S |
| Infinity CL | P-94 | Med Late | Very Good | Fair-Good | Medium | Med Short | Good | Good | MR | MR | MR | MR-MS | S | S |
| Settler CL | P-94 | Medium | Good | Good | Short | Medium | Good | Good | S | MS-MR | MR | MS-MR | R | MS-MR |
| Ruth | P-94 | Med Late | Good | Good | Medium | - | Good | Good | MS-MR | MS | MR | MR | R | S |

¹ U.S. PLANT VARIETY PROTECTION:

N = Not protected | P = Protected variety

P-94 = Protected under the revised PVP Act of 1994

A-94 = Applied for or protected under the revised PVP Act of 1994.

² Actual height, bushel weight, and protein content will vary widely with season, location, and production conditions.

GENERAL HEIGHT RATINGS (IN OPTIMUM MOISTURE):

Short = 30-35" | Medium = 35-40" | Tall = 40-45"

GENERAL BUSHEL WEIGHT RATINGS:

Very Good = 62-60 lb/bu | Good = 60-58 lb/bu | Fair = 58 lb/bu

³ RATINGS:

R = Resistant

S = Susceptible

MT = Moderately Tolerant

LT = Low Tolerance

MR = Moderately Resistant

MS = Moderately Susceptible



UPDATE ON HYBRID WHEAT: WORKING ON THE PLATFORM

Last year, we mentioned that we received a major three-year grant from USDA's National Institute of Food and Agriculture (NIFA) and support from the Daughtery Water for Food effort at UNL, and our Wheat Boards. The grant represented part of a U.S. contribution to the International Wheat Yield Partnership to develop higher-yielding lines of hybrid wheat that can meet rising demand for this staple food crop. The International Wheat Yield Partnership is a voluntary consortium of international public funders, research organizations, and private-industry partners aiming to increase the genetic yield potential of wheat by up to 50 percent in the next 20 years.

Our partners in this effort are colleagues from Texas A&M University (Amir Ibrahim and Jackie Rudd and their team), Kansas State University (Jesse Poland) and the International Maize and Wheat Improvement Center (Bhoja Basnet). Other Nebraska researchers involved with the project are Vikas Belamkar, research assistant professor, and Nicholas Garst, Hannah Donoho, Yavuz Delen and Semra Palai-Delen, graduate students. The project also has links to hybrid wheat efforts at Saaten-Union Recherche in France (the largest hybrid wheat company globally); the Leibniz Institute of Plant Genetics and Crop Plant Research in Germany, led by Jochen Reif; and the University of Hohenheim in Germany, led by Friedrich Longin.

In 2018, we completed our second year of hybrid wheat tests (Ph.D. dissertation of Dr. Amanda Easterly) and part of our anther extrusion efforts identifying male lines that will

pollinate male sterile females in the field (Mr. Nick Garst, M.S. thesis). We also made 350 new hybrids in Nebraska just as Texas A&M University did in Texas. We deliberately split our crossing block so that inclement wheat may affect one block, but hopefully never both as a risk avoidance strategy. We created a Scientific Advisory Board consisting of most of the major seed companies interested in hybrid wheat, seed producers, Crop Improvement Associations, the value chain (millers and bakers), and equipment developers and dealers (we may need new seeders and harvesting equipment). This Board will help us make sure that we are developing the right blend of research to foster hybrid wheat development in the public and private sector. Our goal is to become the public platform for hybrid wheat research to the benefit of all. It is expected that the private sector will be the main provider of hybrid seed to growers in the United States.

Geography represents one of the primary reasons Nebraska has a particular interest in hybrid wheat. The High Plains is an ideal place to produce hybrid wheat seed because of its irrigation and early morning wind, which supports the critical need for cross-pollination to produce hybrid wheat seed.

"With new genetic and chemical tools available today, and funding from the NIFA-USDA, the Daughtery Water for Food effort, and our Wheat Boards, think the time is right to try to attempt to create a viable hybrid wheat market again," Baenziger said.

NE96T441

NE96T441 triticale is going to be the tallest line of the 5 tested. Fully mature 441 will be 46'-52' tall and will most likely be the latest maturing line of the 5 tested. I would caution on the fertility used for production so the plants do not lodge. We raised a similar line at Mead NE in 2015 and used 70# of Nitrogen applied with 30# of residual Nitrogen from the previous soybean crop. 441 is raised across the Southern High Plains of Kansas as far South as Texas and New Mexico on rain fed ground. Planting rates in the rain fed areas listed would be 40# to 75# of seed an acre with rain fall ranging in the 12"-17" per year.

AGRONOMIC FEATURES

| | |
|--------------------------------------|------|
| DRY FORAGE YIELD (lbs/acre) | 9774 |
| HEIGHT STATE AVERAGE (in) | 64 |
| PROTEIN % | 11 |
| TEST WEIGHT (lbs/Bushel) | - |
| GRAIN STATE AVERAGE YIELD (lbs/acre) | 1121 |

NT05421

NT05421 is going to be a medium tall variety with good straw strength. We have this line also being raised in the Southern High Plains of Kansas and will be a good dual purpose line for grain and forage. This line is the most forgiving of the lines we have seen in the testing, meaning it will work well on rain fed ground and will work in areas of low rain fall. This line may not be the highest testing line in the group, but NT05421 will be middle of the pack if not right at plot average. Higher rates of fertilizer should not cause lodging but caution of over use of Nitrogen.

AGRONOMIC FEATURES

| | |
|--------------------------------------|------|
| DRY FORAGE YIELD (lbs/acre) | 7380 |
| HEIGHT STATE AVERAGE (in) | 55 |
| PROTEIN % | 10 |
| TEST WEIGHT (lbs/Bushel) | 51 |
| GRAIN STATE AVERAGE YIELD (lbs/acre) | 3189 |

NT06427

NT06427 is an awnleted, ivory-glumed cultivar. The coleoptile color is white. Its field appearance is most similar to NE426GT, but can be easily separated from NE426GT because NE426GT is awned. The flag leaf is recurved and twisted at the boot stage. The foliage is green with a waxy bloom on the leaf sheath. The auricle is colorless or white and lightly pubescent. The neck is pubescent (hairy). The head is oblong and mid-dense. The glume is pubescent, white, long, and the glume shoulder is wanting. The beak has an acuminate tip. Kernels are amber colored, elliptical in shape, moderately wrinkled, with a large and long brush.

AGRONOMIC FEATURES

| | |
|--------------------------------------|------|
| DRY FORAGE YIELD (lbs/acre) | 7480 |
| HEIGHT STATE AVERAGE (in) | 48 |
| PROTEIN % | 11 |
| TEST WEIGHT (lbs/Bushel) | 47 |
| GRAIN STATE AVERAGE YIELD (lbs/acre) | 2709 |

NT09423

NT09423 works well in the New England states where we have tested for the last 3 years. This line has topped the forage trials with Cornell University under an intensive nutrient management program using fluent fertilizer from Dairy operations. Most of the work in the Northeast has been centered around double cropping triticale and a BMR forage type crop. The triticale is harvested at the boot stage or Feekes 9.5, harvesting at this stage helps capture the highest sugar concentration in the triticale which translates to higher milk yields per acre.

AGRONOMIC FEATURES

| | |
|--------------------------------------|------|
| DRY FORAGE YIELD (lbs/acre) | 7648 |
| HEIGHT STATE AVERAGE (in) | 48 |
| PROTEIN % | 11 |
| TEST WEIGHT (lbs/Bushel) | 50 |
| GRAIN STATE AVERAGE YIELD (lbs/acre) | 3183 |

NT11406

NT11406 is an earlier maturing line that will be of medium to medium early maturity. This line has performed well in the Southern High Plains at elevations of 4400' in New Mexico under irrigation. Rain fed production for this line is average or below average from the testing we have completed. NT11406 has above average straw strength which aids in the more intensive management areas.

AGRONOMIC FEATURES

| | |
|--------------------------------------|------|
| DRY FORAGE YIELD (lbs/acre) | 6934 |
| HEIGHT STATE AVERAGE (in) | 48 |
| PROTEIN % | 11 |
| TEST WEIGHT (lbs/Bushel) | 47 |
| GRAIN STATE AVERAGE YIELD (lbs/acre) | 2812 |

NT11428

NT11428 is similar to NT11406 in maturity, straw strength and plant height when grown in the Texas and New Mexico regions. NT11428 will work well under irrigation as well as be average or above average for rain fed production. Small areas of lodging were seen in Nebraska under intensive management with nutrients and above average rain fall for the Eastern Nebraska region.

AGRONOMIC FEATURES

| | |
|--------------------------------------|------|
| DRY FORAGE YIELD (lbs/acre) | 7838 |
| HEIGHT STATE AVERAGE (in) | 54 |
| PROTEIN % | 10 |
| TEST WEIGHT (lbs/Bushel) | 49 |
| GRAIN STATE AVERAGE YIELD (lbs/acre) | 2893 |

TRITICALE CHARACTERISTICS

| Variety | LINCOLN Grain Yield (lbs/acre) | MEAD Grain Yield (lbs/acre) | SIDNEY Grain Yield (lbs/acre) | STATE Grain Average Yield (lbs/acre) | LINCOLN Height (in) | MEAD Height (in) | STATE Average Height (in) | LINCOLN Heading Date (Days after Jan. 1) | MEAD Heading Date (Days after Jan. 1) | STATE Heading Date Average Date (Days after Jan. 1) | Test Weight (lbs/bushel) | Winter Survival % | Bacterial Streak (1-9) |
|------------|-----------------------------------|--------------------------------|----------------------------------|---|------------------------|---------------------|------------------------------|--|---|---|--------------------------|-------------------|------------------------|
| *NE96T441 | 817 | 1424 | – | 1121 | 67.0 | 60.0 | 64 | 151.0 | 152.0 | 151.0 | – | 99 | 2 |
| NE422T | 2214 | 2202 | 3136 | 2340 | 64 | 66 | 62 | 150 | 157 | 151 | 50 | 98 | 4 |
| NE426GT | 2329 | 2363 | 3499 | 2511 | 52 | 52 | 49 | 144 | 152 | 147 | 47 | 100 | 6 |
| NT05421 | 3033 | 3131 | 3829 | 3189 | 60 | 56 | 55 | 146 | 149 | 146 | 51 | 100 | 4 |
| NT06422 | 3126 | 2598 | 3802 | 2996 | 53 | 53 | 51 | 144 | 147 | 145 | 47 | 100 | 5 |
| NT06427 | 2767 | 2307 | 3742 | 2709 | 52 | 49 | 48 | 144 | 150 | 146 | 47 | 100 | 3 |
| NT07403 | 3385 | 2846 | 3481 | 3168 | 49 | 48 | 46 | 143 | 146 | 142 | 52 | 100 | 5 |
| NT09423 | 3049 | 3066 | 3936 | 3183 | 51 | 51 | 48 | 146 | 150 | 147 | 50 | 100 | 2 |
| NT10417 | 2606 | 2520 | 3912 | 2756 | 53 | 53 | 49 | 146 | 149 | 148 | 46 | 100 | 4 |
| NT11406 | 2890 | 2408 | 3789 | 2812 | 51 | 50 | 48 | 146 | 148 | 147 | 47 | 100 | 3 |
| NT11428 | 2997 | 2614 | 3416 | 2893 | 57 | 55 | 54 | 145 | 151 | 147 | 49 | 100 | 3 |
| **OVERLAND | 2604 | 2683 | 3875 | 2819 | 42 | 43 | 39 | 146 | 150 | 145 | 59 | 97 | 2 |

* Single year data from 2015

** Overland is a wheat comparison to triticale

TRITICALE FORAGE ANALYSIS

| Variety | Dry Forage Yield (lbs/acre) | Dry Matter % | IVDMD % | NDF % | ADF % | ADL % | Protein % |
|------------|-----------------------------|--------------|---------|-------|-------|-------|-----------|
| *NE96T441 | 9774 | N/A | 68 | 66 | 40 | 6 | 11 |
| NE422T | 7284 | 0.273 | 68 | 66 | 39 | 6 | 11 |
| NE426GT | 7350 | 0.285 | 69 | 63 | 37 | 5 | 11 |
| NT05421 | 7380 | 0.292 | 67 | 65 | 39 | 6 | 10 |
| NT06422 | 7022 | 0.294 | 68 | 63 | 38 | 5 | 10 |
| NT06427 | 7480 | 0.292 | 69 | 62 | 37 | 5 | 11 |
| NT07403 | 6595 | 0.307 | 69 | 62 | 37 | 5 | 10 |
| NT09423 | 7648 | 0.272 | 69 | 64 | 38 | 6 | 11 |
| NT10417 | 6683 | 0.282 | 69 | 64 | 37 | 5 | 11 |
| NT11406 | 6934 | 0.281 | 68 | 64 | 38 | 5 | 11 |
| NT11428 | 7838 | 0.285 | 68 | 64 | 38 | 5 | 10 |
| **OVERLAND | 6569 | 0.300 | 69 | 62 | 37 | 5 | 11 |

* Single year data from 2015

** Overland is a wheat comparison to triticale

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