

Wheat Variety Characteristics
Varieties Planted in the Texas High Plains Uniform Variety Trials
2016-2017

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Variety selection is a critical decision that can significantly affect yield potential, disease, insect pressure, and seed quality. The Texas A&M AgriLife uniform variety trials are a coordinated effort between AgriLife Research and AgriLife Extension, providing unbiased yield comparisons over multiple environments and growing conditions. Each location consists of forty entries composed of both state and regional entries, and the composite data is the foundation of our annual “Pick” wheat varieties. Entries are replicated 3 or more times and evaluated under irrigated and dryland production.

Location		Water Regime	Planting Date	Condition
Bushland Irrigated	Potter	Irrigated	10/5/2016	Good
Bushland Dryland	Potter	Dyland	10/14/2016	Fair
Clovis	Curry, NM	Irrigated	10/12/2016	Good
Perryton	Ochiltree	Irrigated	10/20/2016	Good
Booker	Lipscomb	Dyland	10/20/2016	Very Poor
Dumas	Moore	Irrigated	11/11/2016	Very Good
Groom	Carson	Dryland	11/2/2016	Good
Hereford	Deaf Smith	Dryland	11/1/2016	Good
Wellington	Collingsworth	Dryland	11/2/2016	Very Good
Nazareth	Castro	Dryland	10/27/2016	Good
Lamesa	Dawson	Irrigated	11/1/2016	Good
Plainview	Hale	Irrigated	11/29/2016	Poor stand
Lubbock	Lubbock	Dryland	10/19/2016	Excellent

2016-2017 Entries:

SY Rugged

Syngenta experimental released in early 2017.

Pedigree: formerly AP11T2222 experimental

Bentley (initially tested as OK09125)

Oklahoma State 2015 release. Dual-purpose variety for dryland acres that performs well under moderate drought stress. Bentley should not be planted early (August to early-September) as germination and seedling stages are sensitive to heat.

CPLN 69-16

Croplan (Winfield) 2016 release. Limited variety information available.

Gallagher

Oklahoma State University 2012 release marketed by Oklahoma Genetics. Adapted to Oklahoma, southern Kansas and central-eastern Texas Panhandle. Moderately susceptible to wheat streak mosaic virus, but resistant to soilborne mosaic. Resistant to both leaf and stripe rust. Hessian fly resistant. Good dual-purpose variety that tolerates heavy grazing.

Pedigree: Duster, Oklahoma experimental that includes 2180

Height: Medium

Greer

AgriPro (now Syngenta) 2010 release. Average yielder in Panhandle trials. Considered a dual-purpose wheat. Resistant to stripe rust, but susceptible to leaf rust. Very good straw strength and drought tolerance. Moderately susceptible to barley yellow dwarf.

Pedigree: Experimentals

Height: Medium

Iba

Oklahoma State University 2012 release marketed by Oklahoma Genetics. A dual-purpose variety that performs very well in Kansas and Oklahoma. Good grain yield potential. Later maturing variety. Resistant to leaf and stem rusts. Intermediate resistance to stripe rust. Resistant to soilborne mosaic, but susceptible to wheat streak mosaic virus.

Pedigree: Duster, Oklahoma experimental that includes Karl 92 and Tomahawk

Height: Medium

Joe

Kansas State 2015 release. A hard white, tan chaffed variety that is reported as medium late in maturity in Kansas. Noted for good winter-hardiness and good tolerance to shattering. Medium length coleoptile.

Resistant to the current prevalent races of leaf, stripe, and stem rusts. Resistant to wheat streak mosaic virus and intermediate resistance to barley yellow dwarf virus. Drought tolerant variety that performs well on dryland acres.

Pedigree: Kansas State experimentals, Jagger, and Arlin.

Height: Medium tall

KanMark

Kansas State University new 2014 release. Targeted for western and central Kansas. Very good performance under irrigation; it withstands moderate drought. Only tolerates limited grazing. Resistant to stripe and leaf rust. Moderately susceptible to wheat streak mosaic virus. Resistant to soilborne mosaic.

Pedigree: CIMMYT spring wheat, Kanred, West Bred line, Karl 92

Height: Very short, upright variety

Larry

Kansas State 2016 release. Resistant to stripe rust but moderately susceptible to leaf rust. A high tillering variety with below average drought tolerance. Moderately susceptible to wheat streak mosaic and barley yellow dwarf. A medium maturity variety with very good straw strength.

Pedigree: Kansas State experimentals, Overly, and Karl 92.

Height: Medium

LCS Chrome

Limagrain Cereal Seeds 2016 release that is well adapted to the Great Plains and Rolling Plains regions. Resistant to leaf and stripe rust. A medium maturity variety with very good drought tolerance and high tillering ability. Medium coleoptile length.
Height: Medium

LCS Mint

Limagrain Cereal Seeds 2012 release that is well adapted to the northern Texas Panhandle, eastern Colorado, western Kansas and Nebraska. Resistant to stripe rust but susceptible to leaf rust. Intermediate wheat streak mosaic virus resistance. Resistant to soilborne mosaic. Prone to lodge with heavy nitrogen fertility under irrigation. Maturity varies due to strong photoperiodism. Excellent drought tolerance and medium-long coleoptile.
Height: Medium tall

Long Branch (initially tested as experimental HRX162)

Dyna-Gro 2016 release adapted for both dryland and irrigated acres. A medium maturity wheat that is medium-tall with very good straw strength and excellent winter hardiness. Reported to be adapted to heat and moisture stress very well; finishes well in adverse conditions. Moderately resistant to stripe rust. Susceptible to leaf rust and moderately susceptible to stem rust. Excellent winter hardiness and very good straw strength but prone to lodging under excessive irrigation and fertility.

Plains Gold Avery

Colorado State University 2016 release marketed by Plains Gold (CWRF). A medium-tall white chaffed wheat with a medium-long coleoptile that is a cross between TAM 112 and Byrd. Performed very well in 2015 irrigated and dryland and limited irrigated conditions due to excellent drought tolerance. Resistant to the wheat curl mite. Susceptible to leaf rust and stem rust. Moderately susceptible to stripe rust. Good milling and baking qualities.

Plains Gold Byrd

Colorado State University 2013 release marketed by Plains Gold (CWRF). Adapted for both dryland and irrigated conditions. Shows good drought tolerance. Moderately susceptible to stripe and leaf rust. Average straw strength.

Plains Gold Denali

Colorado State University 2011 release marketed by Plains Gold (CWRF). Adapted to Colorado, Kansas and Nebraska for both dryland and irrigated conditions. Shows good drought tolerance. Moderately susceptible to stripe and leaf rust. Late maturing, average straw strength. Susceptible to wheat streak mosaic virus.

SY Drifter (initially tested as AP09T7631)

AgriPro (Syngenta) 2015 release. Medium maturity, very good straw strength. Poor tolerance to stripe rust, moderately resistant to stem and leaf rust.
Height: Medium tall

SY Grit

AgriPro (Syngenta) 2017 release. An medium early maturity variety that is adapted to the Great Plains from Kansas to Texas High Plains and Rolling Plains regions. Noted for drought tolerance and straw strength with a good disease package. Moderately tolerant to stripe rust and intermediate tolerance to leaf rust.
Height: Medium tall

SY Flint

AgriPro (Syngenta) 2015 release. A medium early maturity variety with moderate resistance to stripe and leaf rust. Tolerant of stripe rust and moderately susceptible to leaf rust. Excellent tolerance to wheat streak mosaic virus. Very good straw strength and shattering resistance. Positioned for irrigated acres in the Texas High Plains. Mixed reports of grazing potential.

Pedigree: Experimentals, Jagalene and Duster

Height: Medium

SY Llano (initially tested as APH09T9614)

AgriPro (Syngenta) 2014 release. Very early maturing and high tillering variety tolerant of heavy fall grazing. Resistant to stripe rust. Moderately susceptible to leaf rust. Moderately susceptible to wheat streak mosaic but resistant to soilborne mosaic.

Pedigree: AgriPro experimentals

Height: Short

SY Monument (initially tested as 04BC574-2)

AgriPro (Syngenta) 2014 release. Late maturing variety with resistance to stripe and leaf rust. Very good drought tolerance and very high tillering variety. Tolerant of limited grazing. Average straw strength.

Height: Medium tall

SY Southwind

AgriPro (Syngenta) 2012 release. Medium, early maturing variety well positioned for the Rolling Plains. Highly tolerant of stripe and stem rust. Moderately tolerant of leaf rust. Good straw strength. It should be under irrigation in the northern Texas High Plains

Height: Medium short

T158

Limagrain Cereal Seeds variety 2009 release that is well adapted to the Texas Panhandle, eastern Colorado, Oklahoma, Kansas and Nebraska. Moderately resistant to stripe rust but moderately susceptible to leaf rust. Intermediate susceptibility to wheat streak mosaic virus. Resistant to soilborne mosaic. Drought tolerant. Only tolerates limited grazing. Very good shattering resistance. Very good straw strength.

Pedigree: T81, KS93U206 experimental

TAM W-101

Texas A&M 1971 release. Used in trials as a historical check. Not recommended in this region.

TAM 111

Texas A&M AgriLife 2003 release. Marketed by AgriPro. Consistent high-yielding variety under dryland and irrigated conditions if managed for leaf disease. Susceptible to stripe and leaf rusts. Good straw strength and unlikely to shatter. Good overall variety for the Panhandle. Medium-long coleoptile. Late first hollow stem.

Pedigree: TAM 107, Centurk, and others

Maturity: Medium

Height: Medium tall

TAM 112

Texas A&M AgriLife 2005 release marketed by Watley Seed. Very consistent high-yielding variety under dryland and irrigated conditions. Greenbug and wheat curl mite resistant. Some tolerance to wheat streak mosaic virus. Susceptible to stripe and leaf rust. Unlikely to shatter. Straw strength may be questionable under full irrigation. Good overall variety for the Texas High Plains. Medium-long coleoptile. Good quality. Good fall grazing potential. Early maturity; early first hollow stem.

Pedigree: TAM 110 sib, TAM 200, WGRC experimental

Maturity: Medium

Height: Medium tall

TAM 113

Texas A&M AgriLife 2011 release marketed by Adaptive Genetics. Very good dual-purpose variety that provides good fall forage. Positioned for Texas and Oklahoma Panhandles, western Kansas and eastern Colorado. Moderately susceptible to wheat streak mosaic virus. Susceptible to soilborne mosaic. Moderately resistant to stripe and leaf rust. Emerges well under stressful conditions. Very good shattering reputation. Below average straw strength. Medium-short coleoptile. Good quality grain with excellent milling and baking qualities. A common choice for organic production. Good fall grazing potential. Early first hollow stem.

Pedigree: TAM 200, TAM 202, TAM 105, and WGRC experimental

Maturity: Medium

Height: Medium

TAM 114 (initially tested as TX07A001505)

New Texas A&M AgriLife 2014 release marketed by Adaptive Genetics. Positioned for the Texas High Plains, western Kansas and eastern Colorado. Good for dual-purpose systems; tolerates heavy grazing pressure. Similar to TAM 111 but higher yield potential and improved leaf disease resistance. Moderately susceptible to wheat streak mosaic virus. Resistant to stripe and leaf rust. Intermediate resistance to Hessian fly. Good straw strength. Excellent bread-making quality.

Pedigree: TAM 111, TAM 200, Texas and Nebraska experimentals

Maturity: Medium

Height: Medium

*TAM 114 entered with and without seed treatment in 2017

TAM 204 (initially tested as TX06V7266)

New Texas A&M AgriLife 2014 release marketed by Watley Seed. Positioned for the Texas High Plains, Oklahoma, and southern Kansas. A beardless wheat positioned for heavy grazing and graze-out conditions. Produces good fall ground cover. Not ideal for grain production due to low test weights. Resistant to Hessian fly, wheat curl mite and greenbugs. Moderately resistant to wheat streak mosaic. Resistant to soilborne mosaic and tolerant to acid soils. Moderately resistant to stripe rust, resistant to stem rust and moderately susceptible to leaf rust.

Pedigree: TAM 112, Pecos, Mason, Jagger

Maturity: Medium late

Height: Medium short

TAM 304

Texas A&M AgriLife 2007 release marketed by Scott Seed. Consistently high yield potential; well positioned for the Texas High Plains, Kansas and Oklahoma. Moderately susceptible to wheat streak mosaic virus. Resistant to leaf rust and moderately resistant to stripe rust. Intermediate resistance to Hessian fly. Good straw strength makes it suitable for high-input systems.

Pedigree: Pioneer germplasm

Maturity: Medium

Height: Medium

TAM 305

Texas A&M AgriLife release marketed by Scott Seed. An semi-dwarf variety that is well positioned for the wheat producing regions of Texas. High yield potential across multiple environments. Well positioned for irrigated and dual-purpose wheat production systems; early season vigor and good forage production. Strong straw strength and resistant to shattering. Resistant to leaf rust and stripe rust.

Maturity: Early-medium early

Height: Short

TAM 401

Texas A&M AgriLife release marketed by AgriPro. An awnless semi-dwarf variety well adapted to the central Great Plains wheat producing regions; particularly the Rolling Plains, Blacklands, and South Central Texas. Early maturing variety with excellent forage and grain yield potential. Resistant to leaf and moderate stripe rust resistance. Good early fall forage and improved grain producing abilities than other awnless wheat varieties.

Pedigree: Mason and Jagger

Height: Medium

Tatanka

A 2016 Kansas State release that is a medium to medium-late maturity variety and is best adapted for western Kansas. It has a good disease package with good stripe and leaf rust resistance. Variety has good drought tolerance and is positioned for western Kansas.

Pedigree: Trego, Jagger, and T151

Height : Medium

TX11A001295

Texas A&M AgriLife Research Experimental

TX12M4068

Texas A&M AgriLife Research Experimental

Underwood

Dyna-Gro variety well positioned for high input systems. A medium-early variety ideal for high input systems in western Kansas. Performs best under irrigation. Good standability under full irrigation. Not recommended for dryland environments. Moderately resistant to leaf and stripe rust.

WB-4458

Westbred (Monsanto) 2013 release. Adapted to the central Great Plains, but yields are optimized in Kansas and Oklahoma. Drought tolerant, but it does not perform well under extreme dryland conditions. Yields carried by test weight more than seed number. Excellent straw strength. Only tolerates limited grazing. Intermediate stripe and leaf rust resistance. Moderately susceptible to wheat streak mosaic virus.

Pedigree: Overlay, Westbred experimentals

Height: Medium

WB-4721 (initially tested as HV9W10-0129)

Westbred (Monsanto) 2016 release that is adapted to the Great Plains, but the ideal production region is western Kansas. A medium-early maturity variety for dryland production. Very good fall growth and winter hardiness. Excellent test weights. Moderately tolerant to stripe and leaf rust.

Height: Medium

WB-Grainfield

Westbred (Monsanto) 2012 release positioned for the western central Great Plains (Texas Panhandle and west of I-35). Late maturing variety with very good yield potential and good grazing potential. Good drought tolerance. Moderately resistant to stripe and leaf rust. Moderately susceptible to wheat streak mosaic virus. Resistant to soilborne mosaic. Good straw strength and shattering reputation.

Pedigree: Westbred and K-State experimentals

Height: Medium tall

Winterhawk

Westbred (Monsanto) 2007 release well adapted for the western regions of the Great Plains. Excellent drought tolerance. Well suited for dual-purpose systems with heavy grazing. Produces good fall forage. Intermediate stripe rust resistance but susceptible to leaf rust. Moderately susceptible to wheat streak mosaic virus. Resistant to soilborne mosaic. Good straw strength with good resistance to shattering.

Pedigree: Westbred experimentals

Height: Medium tall

Zenda

A 2016 Kansas State release. A medium-early variety with fair drought tolerance positioned for higher precipitation regions specifically eastern Kansas. Moderate resistance to stripe and leaf rust. Good tolerance to soil borne mosaic virus.

Pedigree: Overlay, Everest and experimental

Height: Medium tall

For further information about wheat production and management in Texas, consult the following websites:

- <http://varietytesting.tamu.edu/wheat/>
- <http://amarillo.tamu.edu/amarillo-center-programs/agronomy/wheat-publications/>
- <http://lubbock.tamu.edu/programs/crops/wheat/>
- <http://sickcrops.tamu.edu>
- <http://www.texasinsects.org/small-grains.html>
- <https://wheatfreezeinjury.tamu.edu/>
- <https://texaswheatupdates.tamu.edu/>

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