

Wheat Variety Grain Summary, 2018-2019 & Grain Variety Picks for Texas High Plains—2019-2020

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2018-2019 Cropping Season in Review

Across the Texas High Plains, much of the early wheat for grazing or dual-purpose production was drilled into good soil moisture. This resulted in good stands and good early forage production. However, rain subsided in late October, and much of the November and December wheat was dry sowed. There was nominal winter precipitation through the central and northern Panhandle resulting in another dry winter. Winter drought resulted in many producers pulling cattle off dryland wheat pasture early due to a lack of forage; however, spring rain resulted in excellent recovery of wheat conditions. In the eastern and northeastern Panhandle, rain continued through May resulting in many fields being waterlogged. There were also widespread hailstorms across the region resulting in significant hail injury to regional wheat fields. Planted wheat acres for grain were down in 2018 as a result of increased cotton acres as well as increased acreage planted for wheatlage. As a result of above average rainfall in May, much of the wheatlage was not chopped as fields were too wet. Consequently, much of the wheat intended for wheatlage went to grain. In the western and southwestern Panhandle, cool conditions and ideal precipitation resulted in dryland yields approaching 80 bu/ac on some fields; however, the regional average was approximately 40 bu/ac. Irrigated wheat ranged from 70 to 100 bu/ac depending on irrigation capacity and precipitation timing and amount.

Wheat Grain Variety “Picks” for 2019-2020

Continuing a long-time tradition, ongoing Picks criteria include a minimum of three years of irrigated or dryland data in Texas A&M AgriLife regional variety trials across numerous annual locations. Furthermore, a “Pick” variety can be described as: “Varieties that we would choose to include and emphasize on our farm for wheat grain production given the 3-year performance and variety characteristics.”

Picks are not necessarily the numerical top yielders as important disease resistance traits (leaf or stripe rust, wheat streak mosaic virus), insect tolerance (greenbugs, Russian wheat aphid, wheat curl mite Hessian fly), or standability can also be important varietal traits that enable a producer to better manage potential risk. Varieties placed on our Watch List show promise but have insufficient data (most likely just two years) is yet available to make a conclusion.

Table 1. Texas A&M AgriLife wheat grain variety Picks for the Texas High Plains based on yield performance and consistency based on over 34 multi-year, multi-site irrigated and dryland trials harvested in 2015-2019. Leaf rust and stripe rust reactions are included (see footnote).

Wheat Variety "Picks", Texas High Plains. 2019-2020		
<u>Full Irrigation</u> [‡]	<u>Limited Irrigation</u>	<u>Dryland</u>
TAM 113 (R/R) [§]	TAM 112 (S/S)	TAM 112
TAM 114 (MR/R)	TAM 113	TAM 113
CP7869 (R/R)	TAM 114	TAM 114
SY Monument (R/R)	CP7869	CP7869
Winterhawk (MS/MR)	SY Monument	LCS Mint (S/MR)
	Winterhawk	WB4721 (R/MR)
		T158 (MR/MS)
Wheat Variety "Watch" List, Texas High Plains. 2018-2019		
TAM 205 (R/R)	TAM 205	TAM 205
TAM 115 (R/R)	TAM 115	TAM 115
		Long Branch (MS/MR)

[‡]Full irrigation in the Texas & eastern NM High Plains reflects a production system that also is oriented to ample nitrogen fertilizer applications and likely fungicide application, in particular for leaf rust and stripe rust even when infection is minimal or perhaps even not evident (preventive applications).

[§]Leaf rust/stripe rust resistance ratings: R, Resistant; MR, moderately resistant; MS, moderately susceptible; and S, susceptible

Changes in the High Plains Picks

TAM 115 is a new variety to the 2018-2019 Irrigated and Dryland Picks Watch Lists. It does have a solid 3-year history in the High Plains Uniform Variety trials especially in the limited irrigated and dryland trials, but it has previously been evaluated as an experimental variety. TAM115 is a dual-purpose variety that is resistant to leaf rust, stripe rust, stem rust, green bug and wheat curl mite with excellent drought tolerance. **TAM 205** is a new addition to the 2018-2019 Irrigated and Dryland Picks Watch Lists. It has been evaluated for 2-years in the uniform variety trials. It is a dual-purpose variety with a high top-end yield potential, good test weights, and good fall forage production. It is resistant to leaf rust, stripe rust, stem rust, and green bug. It is also resistant to the wheat curl mite and wheat streak mosaic virus. It performed very well in the irrigated and dryland trials. **TAM 112** remains on the limited irrigated and dryland Picks Lists because of its' drought tolerance and resistance to the wheat curl mite, which provides tolerance to wheat streak mosaic virus. **TAM 113** remains on the list because of solid grain performance, forage potential, and ability to emerge under stressful conditions. It has moderate resistance to stipe and leaf rusts.

CP7869 is a new addition for the 2018-2019 Picks List. It has been evaluated as Croplan EXP 69-16 since 2016-2017 production year. It was released in 2018, and it is well adapted for both irrigated and dryland conditions. In all years, it has been a top-yielding variety with good test weights, straw strength and a leaf disease package (good resistance to leaf, stem, and stripe rust). **Syngenta Monument** is another new addition for the irrigated Picks Lists. It is a variety that has been a top yielder in the High Plains Uniform Variety irrigated trials for 4+ with good test weights. It is resistant to stripe and leaf rust and noted for very good drought tolerance. It was not placed on the dryland Picks List because it was not evaluated in 2018-2019 dryland trials.

Winterhawk, **Westbred WB4721** and **Limagrain LCS Mint** have continued performed well in the past 4+ years Texas High Plains production. **Dynagro Long Branch** will continue to be on the watch. It has a good grain yield potential, but milling properties are not as good as other varieties . **OSU Iba** was dropped because it has not maintained an upper yield potential compared to newer varieties. Both **TAM 304** and **Limagrain T158** were dropped from the irrigated lists. **TAM 304** does not have the upper yield potential of newer varieties, and **T158** was not evaluated in 2018-2019 High Plains irrigated trials. **T158** remains on the dryland list because of continued good performance under dryland conditions.

Texas A&M AgriLife staff in College Station, Amarillo, Lubbock, and Vernon have designated our annual wheat grain variety “Picks” for the 2019-2020 for four distinct variety testing regions of Texas. The High Plains results discussed here are based on wheat yields from the 2018-2019 Panhandle region. For a full list of state wheat grain Picks, see the summary document at <http://varietytesting.tamu.edu/files/wheat/>