



Pick Wheat Grain Varieties for the Texas High Plains & Eastern New Mexico

Preliminary List for 2015; Comprehensive Report Available after August 20

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This summary is derived from High Plains wheat grain testing coordinated by the AgriLife wheat breeding program based at Amarillo. Irrigated and dryland test sites range from Lamesa to Perryton and west, including at test site at NMSU-Clovis.

2014-2015 Wheat Crop in Review

Wet weather in particular marked the return of good wheat production conditions in the Texas High Plains for 2014-2015. These welcome conditions also fostered favorable conditions for rust diseases, in particular stripe rust. A significant portion of High Plains acres were sprayed, and producers that did not spray—especially if they had susceptible varieties like TAM 111 and TAM 112—saw yields drop. In contrast some producers with TAM 113 which has stronger stripe rust tolerance found that the level of tolerance was sufficient to preclude spraying.

AgriLife High Plains Wheat Picks for 2015-2016

Our ongoing Picks criteria include a minimum of three years of data in Texas A&M AgriLife High Plains wheat variety trials across numerous annual locations. A “Pick” variety means this: given the data these are the varieties we would choose to include and emphasize on our farm for wheat grain production. 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), or standability can also be important varietal traits that enable a producer to better manage potential risk. We look for **consistency** of yields, e.g. the regularity with which an individual variety is in the top 25% of yield at each location.

While in some years we make no changes to our Picks list, for 2015-2016 we have made some deletions and additions.

Deletions: We have removed TAM 111 from full irrigation in part due to the troubles this variety experienced with stripe rust in 2015. This is the first year of significant underperformance for TAM 111 in our many years of trials, but stripe rust issues and moist conditions—which may be compounded in full irrigation—raise this caution. We have also deleted Duster and Hatcher. Though the long-term performance of these varieties has been solid overall as a Pick for all production conditions, their continued yield has become somewhat marginal relative to newer lines that are available. Hatcher in particular has some risk due to longer maturity and the risk of poor performance at higher temperatures.

Additions: T158 (Limagrain) is now a Pick for dryland and limited irrigation Texas High Plains wheat production. Part of T158's performance is tolerance to stripe rust.

A special note about TAM 114: We have good 3-year yield data on TAM 114 (formerly tested as TX07A001505), which has good across-the-board resistance to rusts, good straw strength, desirable milling and baking qualities, and also has intermediate resistance to some biotypes of Hessian fly. But the seed is in production for 2015 plantings and is likely unavailable to producers.

For further discussion of wheat Pick varieties in the Texas High Plains consult the forthcoming "2015 Wheat Variety Trials Conducted in the Texas and New Mexico High Plains" (Trostell, Rudd, Bell) available by mid-August, 2015. We will have four-year data across multiple High Plains sites for both irrigated and dryland yield and test weight.

Table 1. Texas A&M AgriLife wheat grain variety Picks for the Texas High Plains based on yield performance and consistency from at least 20 multi-year, multi-site trials, 2010-2012 & 2014-2015.

Wheat Variety "Picks", Texas High Plains (Preliminary, 8/3/2015)		
<u>Full Irrigation</u>	<u>Limited Irrigation</u>	<u>Dryland</u>
	TAM 111	TAM 111
	TAM 112	TAM 112
TAM 113	TAM 113	TAM 113
TAM 304		
lba	lba	lba
	T158	T158
Winterhawk	Winterhawk	Winterhawk

Two-year 'watch list.' Based on 2014 and 2015 harvest data Gallagher (Oklahoma St.), SY Monument (Syngenta), and WB-Grainfield (Monsanto) are showing good performance and will merit consideration after 2016 yield data is evaluated. Gallagher had been in Texas A&M AgriLife trials up to 2013, but unfortunately was not tested in 2014. We need further analysis of 2015 harvest data (or more data in 2016) to determine if either Byrd (Colorado State) or Denali (Colorado St.) may be advanced to our Picks list. As noted above TAM 114 in essence has moved off our "Watch List" but is limited due to little seed for 2015 planting.

The Advantage of Variety Picks in Multi-Year Wheat Grain Production

"Pick" varieties with a minimum of three years in High Plains Texas A&M AgriLife testing continue to yield an average of 8 to 12% better as a group than all other varieties in both irrigated and dryland tests. Though you may have a variety for your production conditions that you really like, we encourage you to include one of our Picks in your cropping. We will have full results reported by mid-August 2015 so please contact us for a comprehensive reports. Perhaps a Pick variety that has a specific disease package—which may have been valuable in the stripe rust outbreak of 2015—or relative maturity that contrasts your current variety would be a good complement to your overall program.