



Texas High Plains Wheat Variety Testing Initial Report and Wheat Variety Picks for 2014

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2013-2014 Wheat Crop in Review

Finally! We have some modest trial results to report in 2014! Texas A&M AgriLife harvested 4 irrigated trial sites in the High Plains this year yet we still had three failed irrigated trial sites that were not harvested or had poor quality data due to drought. Also, one dryland trial site made it to harvest. The massive pervasive drought across West Texas continued through the 2013-2014 cropping season and most dryland wheat was failed or grazed out. Even irrigated wheat struggled and we again saw some impact from a moderate freeze in April.

In general wheat variety trial results suggest that good performers in 2014 tended to be varieties bred for and well adapted to western Kansas and eastern Colorado. These varieties may have benefitted from a cooler than normal spring and were still able to respond by increasing grain yield from the region-wide Memorial Day weekend rains as harvest was up to 2 weeks later than normal across the Texas High Plains. Varieties such as Duster, Everest, TAM 112, and TAM 304 that tend to mature earlier under stress were at a relative disadvantage this cropping season unless irrigation levels were high.

AgriLife High Plains Wheat Picks for 2013-2014

Our ongoing Picks criteria include a minimum of three years of data in Texas A&M 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.

For further discussion of wheat Pick varieties in the Texas High Plains consult the forthcoming "2014 Wheat Variety Trials Conducted in the Texas and New Mexico High Plains" (Trostle, Rudd, Bell) available by mid-August.

Table 1. Texas A&M AgriLife wheat grain variety Picks for the Texas High Plains based on yield performance and consistency from at least 22 multi-year, multi-trials, 2009-2012 & 2014.

Wheat Variety "Picks", Texas High Plains		
<u>Full Irrigation</u>	<u>Limited Irrigation</u>	<u>Dryland</u>
TAM 111	TAM 111	TAM 111
	TAM 112	TAM 112
TAM 113	TAM 113	TAM 113
TAM 304		
Duster	Duster	Duster
Hatcher	Hatcher	Hatcher
Iba	Iba	Iba
Winterhawk	Winterhawk	Winterhawk

How has this list changed from previous years? Iba, an Oklahoma bred wheat, has been promoted from the previous two-years' 'watch list' due to its continued good production under a wide range of conditions. It is resistant to leaf rust, but intermediate (between moderately resistant to moderately susceptible to stripe rust), and some data suggests it can be grazed a little longer in the spring than most varieties. Some certified seed should be available for 2014 seeding.

Endurance has been removed from the dryland Pick list for 2014 planting (it once was a Pick for all conditions but has been gradually surpassed by newer varieties). Oklahoma's Gallagher was noted in the previous two-year watch list, but it has been removed from further consideration as a Pick.

Two-year 'watch list.' Based on 2013 and 2014 harvest data Denali, Byrd, T158 look promising, but we require at least one more year of data from the Texas High Plains. In addition, the newly released TAM 114 (tested as Texas A&M AgriLife TX07A001505) looks good though limited seed will likely not be available until at least 2015.

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 about 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. A Pick variety that has a disease package or relative maturity that contrasts your current variety may be a good complement to your overall program.