

OCHILTREE COUNTY AG NEWSLETTER



FARMER- SAVED WHEAT SEED QUESTIONS & ANSWERS

JEFF EDWARDS

SMALL GRAINS EXTENSION SPECIALIST-OKLAHOMA STATE UNIVERSITY

What is the difference between farmer saved seed and certified seed?

Certified wheat seed has gone through a certification process overseen by a state agency. The certification process is a system of checks that ensures seed sold as a certified class is of high quality and suitable for sowing

by the purchaser. Farmer-saved seed can be divided into two classes: bin-run seed that has not been cleaned; and custom-cleaned seed that has been processed by a local seed cleaner (in some cases, the producer). Bin-run seed is frequently contaminated by weed seed and inert matter and often has low germinability and vigor. This can result in poor emergence, reduced forage production, and low grain yield. The quality of custom-cleaned seed in relation to certified seed depends on the quality of seed prior to cleaning and the efficiency of the cleaning process at removing small and/or light seeds. In summary, the quality of farmer-saved seed is only as good as the quality-control measure used in seed production and the cleaning process used post-production. It may be very high quality or very poor quality.

Am I allowed to save seed from PVPA protected varieties?

Yes. Wheat varieties protected under the 1994 Plant Variety Protection Act (PVPA) can only be sold as a class of certified seed. A grower may, however, save seed from these varieties to plant on his/her own holdings (land owned, leased, or rented). The exceptions to this rule are wheat varieties that have patented genetic material. Since these varieties contain a patented gene, they cannot be saved by the farmer, even for use on his/her farm.

What is Quality Seed?

Several factors influence the quality of wheat seed for planting, but paramount among these are:

1. Free of weed seed
2. Purity
3. High germination percentage
4. High vigor
5. Free of foreign material
6. Free from small and/or shriveled kernels

HOW DO I MANAGE FOR QUALITY SEED?

The easiest way to ensure good seed quality for planting is to purchase certified seed from a supplier with a good reputation and history of quality seed. There are, however, some guidelines that can be followed to ensure that farmers wishing to save their own seed are successful in this endeavor. Among these are:

1. Sow enough certified seed each year to provide seed for sowing the following year. This ensures varietal purity and provides access to new varieties.
2. Only save seed from weed-free fields and clean all harvest equipment thoroughly before entering seed wheat fields.
3. Apply a fungicide and don't save seed from fields infested with loose smut or common bunt.
4. Store seed in a low-moisture environment and protect from insects.
5. Always perform a germination test and seed count (seeds per pound) prior to sowing and adjust seeding rates accordingly.
6. Apply a fungicide or insecticide seed treatment to aid with seedling establishment and survival.

What are the savings associated with farmer-saved seed?

Like most economic examples, the cost comparison of farmer-saved and certified seed sources will be farm-specific. The easiest way to compare the costs of the two, however, would be to create a partial budget that accurately accounts for the full cost of farmer-saved seed (Table 1). Naturally, costs vary from farm to farm and not all farmers will experience all of these expenses when saving their own seed, but it is also important to realize that the cost of farmer-saved wheat seed is not simply the production cost or the market price of wheat.

Table 1. Partial budget to compare the costs of farmer-saved seed to those of certified seed.

Factors to consider	Your costs
Wheat market price per bushel	\$ _____
Seed cleaning charges	\$ _____
Value of seed removed during cleaning	\$ _____
Seed treatment costs	\$ _____
Storage costs	\$ _____
Interest cost	\$ _____
Added weed control costs	\$ _____
Farmer-saved seed total cost	\$ _____

GRAIN SORGHUM UPDATES

Dr. Calvin Trostle-Texas A&M AgriLife Extension-Agronomist

Texas A&M AgriLife Extension thanks Dr. Brent Bean (brentb@sorghumcheckoff.com), national agronomist, United Sorghum Checkoff Program (USCP) for information in this Sorghum Tip. Dr. Bean presented this and other information, especially updates on grain sorghum herbicides, to the High Plains Association of Crop Consultants meeting in Lubbock, March 1, 2023.

Sugarcane Aphid Mystery Resolved



Since “sugarcane aphid” appeared on grain sorghum (late 2013) there has long been a question if this was a new biotype of the of the sugarcane aphid (*Melanaphis sacchari*). After close study of morphological features and genetic sequencing entomologists in France, USA, and UK have now concluded the aphid infesting sorghum is actually a biotype of the species *Melanaphis sorghi* or “sorghum aphid.” Going forward when growers hear entomologists and others referring to the sorghum aphid this is nothing new but simply the same aphid that has been referred to as the sugarcane aphid for the last few years.

Recognizing this new understanding, Blayne Reed, IPM Extension agent, Hale & Lamb Counties, Texas, notes this current aphid will now be more correctly known as the ‘sorghum aphid’. This does not change AgriLife Extension’s understanding of the insect, its management, or Extension’s treatment suggestions in any way.

New Promising Herbicide Treatments for Pigweed/Palmer Amaranth in Grain Sorghum

As too many Texas sorghum growers know, pigweed/carelessweed/Palmer Amaranth is a huge concern in Texas grain sorghum. Furthermore, the further erosion of common atrazine use due to tightening use restrictions may requires alternate chemistries to fulfill the role atrazine has played in sorghum production for decades.

USCP continues to fund research examining herbicide options that do not involve atrazine. Two treatments that stood out in 2022 trials were Verdict + Outlook and Coyote, which is a combination of mesotrione + s-metolachlor. In addition to these treatments, herbicides labeled in other crops were examined, with several showing good pigweed control with minimal or no crop injury. It is hoped that in the future companies may consider modifying their labels to include sorghum.

Comparisons of New Grass Herbicide-Tolerant Sorghum Hybrid Families

More grass-herbicide tolerant grain sorghum hybrids will be on the market for 2023. These allow for grass control in grain sorghum, which is itself a grass.

Sorghum New Herbicide Tolerant Technologies

	igrowth[®]	Inzen[™]	Double Team[™]
Seed Company/ Herbicide Company	Advanta/UPL	Pioneer/Corteva	S&W/ADAMA
Herbicide	ImiFlex [™]	Zest [™]	FirstAct [™]
Mode-of-Action	ALS (imi subclass)	ALS (SU subclass)	ACCCase (Fop subclass)
PRE Use	Yes	No	No
POST Use	Yes	Yes	Yes
Broadleaf Activity	Moderate	A little	None
Crop Rotation Concerns	Check label for wheat restrictions	Minimal	Minimal
Seed per Bag	600,000	50 lbs	600,000
<i>Summary courtesy Dr. Brent Bean, United Sorghum Checkoff Program, March 2, 2023</i>			

Remember, each of these grain sorghum hybrids must be paired only with the designated specific herbicide for each technology. Always follow label directions.

CASH LEASE & LAND VALUES RESOURCE

DeDe Jones-Texas A&M AgriLife Extension Economist

Do you have a question on the going rate for farm cash leases as well as current land values. The American Society of Rural Appraisers tracks this information, and is one of my favorite sources to use. Their land value publication has been recently updated and can be accessed at <https://www.txasfmra.com/rural-land-trends>. Also, for general information on crop and livestock insurance, commodity markets, government programs, and just general Ag news, this is my favorite website <https://proudtofarm.com/>. It is a one stop shop for all things related to farming and ranching.



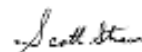
HANDY BT TRAIT TABLE: UPDATED FOR 2023!

DR JOSE SANTIAGO-GONZALEZ

Texas A&M AgriLife Extension -Entomologist

The updated version of the Handy Bt trait table has been posted effective Feb. 2. Dr. Pat Porter, who contributes to updating this information annually, mentioned to me that the seed companies are changing the names of their products. In that sense, the table includes both the former and new trading names so end-users with previous experience using former products could easily relate to the new ones. Similarly, older trait packages, with limited or no commercial availability, remain on the table for historical reference. End-users can trace back the previous year's planting records, seed guides and research results for interpretation purposes. That is why the Handy Bt trait table is a great source for past and present Bt trait information. The table includes information regarding the new RNAi technology for controlling corn rootworms, herbicide traits and the cases of known insect resistance to specific Bt proteins or protein packages.' Great deal!! Check it out!! Follow this link for the information.

(<https://www.texasinsects.org/bt-corn-trait-table.html>).



Scott Strawn
 County Extension Agent-Agriculture
 scott.strawn@ag.tamu.edu
 806-435-4501