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THE TEXAS A&M UNIVERSITY SYSTEM

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Panhandle Ag Extra

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Wheat Harvest Aids

Spring rains coupled with cool temperatures have increased the potential of the Panhandle wheat crop considerably since the first of March. One downside to the excellent rainfall is an increase in weeds in the wheat at harvest. Kochia and prickly lettuce are especially wide spread. Most everyone is familiar with kochia, but few tend to recogize prickly lettuce. A distinct characteristic of prickly lettuce is the presence of very noticeable spines running the length of the midrib on the bottom side of the large, lobed leaves. The plant is an annual and grows 2 to 6 feet in height.

Control of weeds in wheat at harvest is not an easy task but is sometimes necessary if weed populations are significant enough to interfere with harvest. Products labeled for pre-harvest application are listed in the box. Several of these herbicides can be used in combination with each other at reduced rates. My experience over the years with testing these products has been somewhat dissappointing. Do not expect to completely burn down 4 ft weeds with these treatments. In general, the best you can hope for is to wilt down the weeds and obtain some defoliation. However, this is often enough to aid in harvest. Effectiveness of many of these treatments will be enhanced with the addition of UAN, ammonium sultate, and/or surfactants. See specific labels for details. Also, not all 2,4-D products are labeled for pre-harvest use. Again, be sure and check the label. All of the treatments should only be applied to wheat that has reached the hard dough stage and must be applied at least 7 days prior to harvest. Try to avoid using a pre-harvest product on wheat that will be used for seed as the germination and seedling vigor could be reduced.

Wheat Harvest Aid Herbicides

Product	**Rate/Acre**
Roundup Ultra	<32 oz
Roundup Ultra Max	<26 oz
Other glyphosate containing products	*See label*
Landmaster BW	54 oz
2, 4-D LV6	0.66 to 1.3 pt
2,4-D Amine 4	1.5 to 2.0 pt
Banvel/Clarity	8 oz

KARNAL BUNT WARNING!

Karnal bunt has recently be found in the Rolling Plains in Throckmorton/Young county area. The following information was provided for by Dr. Todd Baughman, Extension/Research Agronomist at Vernon:

> *Karnal bunt is a foreign disease first introduced in Texas in 1997. It is quarantined by the USDA-APHIS, as well as agricultural officials in many wheat importing countries. An Emergency Declaration for Young and Throckmorton Counties has been announced by APHIS (Animal and Plant Health Inspection Service). All grain*

must be sampled, tested, and approved before being delivered to the elevator, and moving through the normal marketing channels. Also all grain harvesting equipment must be cleaned (with steam, bleech, or water that is at least 170 degrees F) before leaving the two county area.

Karnal bunt is a fungal disease that can potentially infect wheat, durum wheat, and triticale. It does not infect barley, rye, or oats. The disease often cannot be easily detected in the field. Developing kernels are randomly infected and not all of the seeds per heads or heads of one plant are infected. Infected portions of the kernels will have a black powdery spore mass at the embryo end, which will extend along the crease. The infected kernels will have a fishy odor similar to that of common bunt. While Karnal bunt can affect the color, odor, and palatability of flour and other foodstuffs it does not present a risk to human or animal health. It generally will have minimal impacts on grain yield. While grain and fields may be quarantined, the major problem faced by Rolling Plains wheat growers could be associated with future grain export trade from this region.

Karnal bunt can be dispersed through contaminated seed, plant parts, soil, and equipment. Once it is established in the field, infection occurs from spores, which can lie dormant for a prolonged period of time in the soil. The teliospores of Karnal bunt can persist in the soil or in smutted seed and on seed from 2-5 years. While seed treatments may reduce the germination of Karnal bunt, they are not 100% effective in eliminating the disease. There is also no effective chemical control once the disease has infected the plant. The most effective ways to prevent introduction of Karnal bunt is through a combination of practices, including planting only good quality conditioned seed from a known reputable source, use of seed treatment fungicides, and making certain not to transfer the disease between fields on tillage or harvest equipment.

For more detailed information on karnal bunt APHIS has a web page located at http://www.aphis.usda.gov/oa/bunt/. Also Kansas State University has publication entitled Karnal Bunt Questions and Answers located at http://www.oznet.ksu.edu/library/plant2/.

As you can see from the above discussion Karnal bunt is a very serious disease that we need to be on the look out for. If there is any suspicion that Karnal bunt might be present in a field or load of grain contact officials immediately to have it tested and be very careful not to contaminate any other fields or grain.

Sorghum Planting

Sorghum planting has begun and will continue for the next several weeks. One of the most common mistakes made in planting sorghum is planting too much seed per acre. It is usually best to error on the side of planting to little of an amount of seed rather than too much. A conservative rule of thumb often quoted by Dr. Dan Krieg at Texas Tech is that each sorghum head can easily yield 1/10 pound of grain. Using this assumption seeding rate for various yield goals can be calculated. The box contains an example of the calculation used to obtain a seeding rate for a 3000 pound sorghum yield goal. This yield is easily obtainable with a seeding rate of 30,000. In this example a tillering factor of 1.5 was used. Under good moisture conditions this can easily increase to two or three tillers per plant greatly increasing yield potential.

Assume each sorghum head yields 1/10 pound
- Need 30,000 heads/Acre
  *30,000 Seed/Acre X 0.68 emergence = 20,760 plants
  *20,760 plants X 1.5 tillers = **31,140 heads/Ac**

Another important consideration is how late to plant certain varieties. Dr. Calvin Trostle has put together a table that lists the last planting date for most sorghum varieties grown in the Panhandle. Contact my office or your county extension agent for a list of sorghum varieties and the last date they should be planted.