

Pest Management News

News About integrated pest management for
producers in Runnels-Tom Green Counties

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GENERAL SITUATION

I believe this has turned out to be the wettest spring I have ever experienced. We have been very fortunate to have missed much of the severe weather. Several producers West of Wingate received hail damage to approximately 1500 acres of wheat last week, but generally we have been very fortunate across the Concho Valley.

RUNNELS COUNTY WHEAT TOUR IS coming up next Thursday, March 17, 2007. We will meet at Shiner Freeman's field on FM 2887 just south of Hatchel at 10:00 a.m. Dr. Billy Warrick will discuss the Wheat and Oat varieties and Wild Oat Control. Afterwards we will head back to old St. Mary's Hall for lunch. Once there, we will have presentations on small grain insect management and disease, wheat market outlook, farm bill update and Laws and Regs. Two hours of CEUs will be offered to licensed pesticide applicators. Please RSVP by Tuesday, May 15 to the extension office at 325-365-2219 or my office at 325-365-5212. I think this would be a good time to get together and learn while our wheat is drying out.

CONCHO/MCCULLOCH WHEAT TOUR IS next Tuesday May 15, 2007 (Millersview Gym-Registration at 8 am-Program begins at 8:30 am and ends at 4:00 pm).

Pre-Harvest Weed Control in Small Grain (Sources: Dr. Billy Warrick, Dr. Gaylon Morgan & Dr. Paul Baumann)

Lack of soil applied herbicides, herbicides applied later than recommended, flushes of weeds emerging after application, poor weed control, and favorable weather conditions promoting weed growth have resulted in several weedy small grain fields. Some producers are asking about harvest-aids to use to burn down these weeds prior to harvesting the crop. It is important to keep preharvest weed control in small grains in perspective. The following are some factors to consider before applying an herbicide as a harvest-aid.

- * The expectations for preharvest weed control usually exceeds reality - it is not possible to kill/dry down a 3-foot weed in the same manner as a 3-inch weed.
- * It requires time for dry down treated weeds - usually 7 to 10 days. It may require more time if wet and/or cool weather conditions occur after treatment. All herbicides labeled for preharvest application are systemic and slow acting which requires a longer dry down period as compared to contact, fast acting herbicides.

* The intent of a preharvest treatment should be to facilitate harvest and reduce harvest loss.

* If only dry down of grain straw and grassy weeds is desired, the rates of 0.5 to 1.0 pt/A of Roundup type products are sufficient. Higher rates of 1.0 qt/A are needed for dry down and control broadleaf weeds like kochia and nightshade, and perennial weeds.

NOTE: There are no herbicides labeled as a harvest-aid for use on oats. Gramoxone Max (paraquat), Harmony Extra, Curtail, Express, Peak, Canvas, or Amber are NOT labeled as a harvest-aid in small grains. They are illegal.

Recommendations for Harvest-aids in Wheat							
Harvest-aid	Product Rate/Acre	Weeds Controlled	Harvest Restrictions	Crop Application Timing	Remarks	Tank Mixes	Mode of Action
Ally	.01 oz.	Annual broadleaf	A waiting interval of 10 days is required before harvest.	Apply after hard dough stage of grain (less than 30% moisture).	Always apply with a non-ionic surfactant. Do not use in soils with a pH exceeding 7.9. Weeds growing under limited moisture may be not controlled. Do not use straw for livestock feed.	2,4-D, Clarity	ALS
Clarity	.05 pt/A	Annual & some perennial broadleaf	A waiting interval of 10-14 days is required before harvest.	Apply when wheat is in the hard dough stage & the joints of the stem are no longer green.	Do not use preharvest treated wheat for seed unless a germination test is conducted. Do not allow grazing or use of feed from treated area.	Ally, 2,4-D, Roundup	Growth regulator
Glyphosate Roundup Touchdown	.05-1.0 qt. .05-1.0 qt.	Annual & some perennial broadleaf & grass	A waiting interval of 7 days is required before harvest.	Apply after hard dough stage of grain (less than 30% moisture).	Do not exceed 1 qt/A. Not recommended for wheat being harvested for seed. Do not feed treated straw or permit dairy or meat animals being finished for slaughter to graze treated grain fields within 2 weeks after treatment.	2,4-D, Clarity	ALS
2,4-D 2,4-D 4 Low V Ester	1.0-2.0 pt.	Annual & some perennial broadleaf	Do not allow dairy cattle or slaughter animals to graze for 2 weeks after treatment.	Apply after hard dough stage of grain (less than 30% moisture).	Do not used treated straw for livestock feed.	Ally, Clarity, Roundup	Growth regulator

Mode of Action Defined.

Mode of Action is the primary biochemical or biophysical event that an herbicide directly affects & results in the death of the plant.

* ALS herbicides inhibit the pathways leading to amino acid production in plants.

* Growth regulator herbicides disrupt hormone balance & protein synthesis in the plant leading to weak cell walls & rapid cell proliferation.

In the test conducted by Joseph P. Yenish & Frank L. Young (Effect of Preharvest Glyphosate Application on Seed & Seedling Quality of Spring Wheat (*Triticum aestivum*) published in Weed Technology: Vol. 14, No. 1, pp. 212-217) the following was observed:

Kernel weight and germination were affected only by glyphosate applications at the milk stage. Kernel weight reductions ranged from 19 to 73% and percent germination was reduced by 2 to 46%, compared to the untreated wheat. Wheat seed planted the following year from the glyphosate treatment applied at the milk stage resulted in seedling density reductions ranging from 28 to 99%; reduction in plant height of 19 to 39% and a reduction in seed yield of 12 to 97%, compared to seeds from untreated wheat. In this study, wheat seed and seedling quality following preharvest glyphosate applications were most greatly influenced by crop maturity stage at the time of application than by herbicide rate or variety.

I would expect similar impacts to hard red winter wheat as those reported by Yenish and Young. If glyphosate is used as a harvest-aid: 1) make sure the wheat is mature (hard dough stage), and 2) don't keep the seed for replant purposes.

COTTON

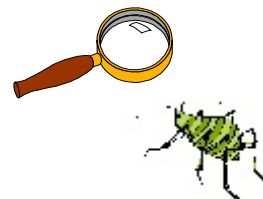
The soil temperature this season has been close to average. The minimum temperature for planting cotton is a ten day average of 60 degrees F at the eight inch depth. This temperature is taken at 8:00 a.m. each day. Cotton planted in warm soil, usually germinates and emerges faster resulting in healthier plants. The weather stations located east of San Angelo, east of Rowena, and southwest of St. Lawrence records soil temperatures and that information is posted on the web. The URLs are <http://sanangelo.tamu.edu/weather/sjt/2007/>, <http://sanangelo.tamu.edu/weather/runnels/2007/>, <http://sanangelo.tamu.edu/weather/glasscock/2007/>.

INSECT SCOUT SCHOOL

The annual cotton insect scout school will be held on June 4, 2007 at the Texas A&M Agricultural Research and Extension Center located north of San Angelo. Since most producers scout their own fields, you may want to attend this meeting. Anyone wanting to participate should contact me at 325-365-5212 by May 30. This will insure we will have enough informational books to go around.

AGENDA

8:30 a.m.	Registration	
9:00 a.m.	Welcome & Introduction	Dr. Tom Fuchs
9:05 a.m.	Growth & Development of the Cotton Plant	Dr. Billy Warrick
9:40 a.m.	Early Season Cotton Insect Pests- Thrips, and Cotton Fleahoppers	Richard Minzenmayer
10:00 a.m.	The Identification, Biology and Damage Characteristics of the Cotton Bollworm, Tobacco Budworm and Pink Bollworm	Dr. Chris Sansone
10:20 a.m.	Break	
10:40 a.m.	The Identification, Biology and Damage Characteristics of the Cotton Boll Weevil and Cotton Aphid	Warren Multer
11:00 a.m.	Identification and Importance of Natural Enemies	Dr. Ed Bynum
11:20 a.m.	The Identification of Secondary Insect Pests and Their Damage Characteristics	Dr. Mark Mueggel
11:40 a.m.	Discussion and Exam	
12:00 p.m.	Adjourn	



Grain Sorghum

Sorghum is progressing well with few problems right now. By the time sorghum reaches the eighth-true leaf stage, the grain production potential for the crop has been determined. All soil nutrient applications should be made prior to this stage. By combining an adequate nutrient load with the favorable soil moisture, we have the potential for a good yielding crop.

Once head differentiation is complete, the use of 2,4-D needs to be terminated. The label indicates that the material can be applied until the plants are 12 to 15 inches tall. That is a correct statement if everything goes right and the plants develop in an unstressed manner. It's best to determine growth stage of the field being treated and not worry about plant height. Make sure it has not reached head differentiation. For broadleaf weed control, Atrazine @ 3 pts./A plus 1 qt. Emulsifiable oil/A has performed well. Another tank mix that has looked good was Ally® @ 1/20 oz./A plus 8 oz. of 2,4-D/A. This combination can cause damage to brace roots under certain conditions. Of course, Peak® is also labeled. Be sure to read and follow label recommendations.