

The Floyd County AG NEWSLETTER

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PANHANDLE FARM & RANCH MANAGEMENT

AMARILLO – Drought issues will be a primary topic of the 27th annual Panhandle Farm and Ranch Management Symposium hosted by the Texas AgriLife Extension Service Nov. 30 in conjunction with the Amarillo Farm and Ranch Show.

The farm show will be Nov. 29-Dec. 1 at the Amarillo Civic Center. The symposium immediately follows the 11th annual Texas Commodity Symposium and Amarillo Chamber of Commerce Ag Appreciation Luncheon. Registration will be from 1-1:15 p.m. in the Grand Plaza Room.

There is a \$2 admittance fee for the Amarillo Farm and Ranch Show, and a \$10 registration fee for the Panhandle Farm and Ranch Management Symposium.

“This year our topics revolve around the drought situation faced by much of the Panhandle,” said Brandon Boughen, AgriLife Extension agriculture and natural resources agent for Potter County. “Drought conditions affect much more than what we normally think about, like the flight patterns of commodity pests and livestock parasites.”

Program topics and speakers will include:

- Laws and regulations, Lavon Harmon, Texas Department of Agriculture inspector.
- Controlling weeds during drought and other weed issues, Dr. Brent Bean, AgriLife Extension agronomist.
- The Worst of the Worst Dust Bowl Areas, Dr. B.A.

Stewart, Dryland Agriculture Institute, West Texas A&M University.

-Monitoring moths with pheromone traps for the Texas High Plains, Dr. Ed Bynum, AgriLife Extension entomologist.

- “i-WHEAT,” an information-driven wheat pest management, and progress on Southwestern corn borer and western bean cutworm models, Dr. Jerry Michels, Texas AgriLife Research entomologist.

- Parasite control for livestock animals, Dr. Sonja Swiger, AgriLife Extension entomologist in College Station.

The program will offer four Texas Department of Agriculture continuing education units for pesticide applicator participants: one in laws and regulations, one and a half in general, one-half in drift management and one in integrated pest management, Boughen said.

For more information, contact Boughen at 806-373-0713 or bwboughen@ag.tamu.edu.

FAILED COTTON PRESENTS MANAGEMENT CONCERNS

By Kay Ledbetter

COLLEGE STATION – Drought made it hard to grow cotton this year, but it is also making it hard to kill the cotton in preparation for wheat or other follow-up crops, according to a Texas AgriLife Extension Service specialist.

Dr. Gaylon Morgan, AgriLife Extension state cotton

specialist, said many producers in the Blacklands and Rolling Plains are looking at planting or have planted wheat into harvested or destroyed cotton fields, which could present some problems.

“As the cotton stalk-destruction deadline quickly approaches in East and Central Texas, numerous farmers have indicated cotton stalks are more difficult to control with both tillage and chemicals this season,” Morgan said.

“Cotton is a perennial plant that we grow as an annual crop,” he said. “This is never more obvious than when we are trying to kill the cotton plants and prevent host plants for the boll weevil.”

Morgan said several factors contributing to increased difficulty with control of cotton stalks this year are:

- Early harvested fields have more time to regrow following tillage or herbicide applications and prior to the first killing freeze.
- Under moisture-stressed conditions, herbicide efficacy is reduced.
- Residual nutrients that were not used by the cotton plant early in the season can encourage regrowth.

“Unfortunately, there is no ‘one recommendation fits all’ for killing cotton stalks, especially in a dry year with prolonged growing conditions following harvest,” he said. “However, there are some general management strategies that should be considered and have proven effective in the past.”

On the tillage front, pulling stalks has typically been quite effective, followed by other tillage methods, Morgan said. However, it is common to have a sufficient number of stalks still standing that require another tillage operation or herbicide application to meet the Texas Department of Agriculture stalk-destruction requirements.

On the herbicide front, more than 10 years of applied research and demonstration trials have been initiated to evaluate the efficacy of the chemical-stalk destruction, he said.

Previous research in Texas has indicated the most effective and consistent herbicide is 2,4-D at 1-1.5

pounds of active ingredient per acre on standing, freshly shredded – one to four hours after shredding, or delayed applications – two to three weeks after shredding.

The herbicide Clarity, at 0.5 pound of active ingredient per acre, has been the best alternative to 2,4-D, but has typically provided slightly less kill than 2,4-D, he said.

Although 2,4-D and Clarity typically provide more than 90 percent kill, where growing conditions remain favorable for approximately 60 days or more after herbicide application, a follow-up treatment may be required to kill any remaining host plants, Morgan said. If a second herbicide application is required, 2,4-D at 0.5-1 pound of active ingredient per acre or Clarity at 0.5 pound of active ingredient per acre is recommended.

In years with early harvest and a warm fall, there may be some advantage to the delayed herbicide applications, two to three weeks after shredding, he said.

“The herbicide efficacy is comparable, but this delayed application may decrease the chance of a second application being necessary and can also help control emerging seedling cotton,” Morgan said. “However, herbicide efficacy can be hindered as temperatures cool in the fall.”

Another area where problems can occur is in cotton fields that are planted into wheat, he said. This cropping sequence has numerous benefits, but one challenge in South, Central and East Texas is destroying the cotton crop prior to planting wheat or after wheat establishment.

When destroying cotton stalks prior to planting wheat, remember 2,4-D has a minimum of a 30-day planting restriction to wheat, Morgan said. Even observing this 30-day planting restriction, some wheat injury can occur, if inadequate rainfall occurs. At the recommended rate of Clarity for cotton stalk destruction, the plant-back restriction is 44 days.

When destroying cotton stalks in established wheat fields, 2,4-D is labeled for application to fully tillered wheat through the boot stage, he said. Applications of 2,4-D prior to the full-tiller stage can significantly decrease yields. Clarity is labeled for application from wheat emergence through jointing; however, the labeled rate is a maximum of 4 ounces per acre.

Morgan said several other products are labeled for post-emergence broadleaf weed control in wheat, include Affinity Broadspec, Aim, Buctril, CleanWave, ET, Huskie, Peak and Starane, and this should provide sufficient suppression of cotton stalks until the first killing freeze occurs to cotton.

He referenced several publications for producers to get more information, including “Managing Volunteer Cotton in Grain Crops,” “Weed Control Recommendations in Wheat” and “Cotton Stalk Destruction with Herbicides.”

PHEASANT MANAGEMENT WORKSHOP

The Texas AgriLife Extension Service in Floyd County will be sponsoring a Pheasant Management Workshop on Wednesday, November 16th. Registration for the program will start at 9 am. The program will start at 9:30 am at the Floyd County Extension Office Meeting Room.

The program is open to all area residents. The program will cover the identification of plants important to pheasants; the origin and biology of pheasants; economic importance of pheasants to local communities and pheasant management in the Texas Panhandle.

Ken Cearly, Texas AgriLife Extension Wildlife Specialist from Canyon will be the presenter for the program. Two CEU's will be provided to all private applicators. This is an excellent opportunity for producers to learn tips on managing and improving pheasant habitats.

Registration for the program costs \$10. Please RSVP your attendance through the Floyd County Extension office by noon on Tuesday, November 15 at 983-4912.

ANHYDROUS AMMONIA TIPS IN DRY SOILS

By: Brean Bean

With our on-going drought, soils throughout the area are dry. Water is very important in providing proper soil physical conditions to ensure complete sealing of the

ammonia fertilizer at the injection site. Ammonia (NH₃) is made up of 82% nitrogen (N) and 18% hydrogen). It is called anhydrous ammonia because it does not contain water. It is a gas but will be in the liquid form when stored under pressure. As a liquid it weighs approximately 5 pounds per gallon but can vary with temperature. Once it is released in the soil it expands rapidly as a gas and has a very strong attraction to water. It quickly dissolves in water forming ammonium (NH₄⁺) which has a positive charge. This positive charge allows it to be absorbed to the negatively charged organic matter and clay particles in the soil.

Soil water is necessary in order for the ammonia to be converted to NH₄⁺ and held or attached to clay or organic matter. Even dry soil contains some water (although less in sandy soils). **The more important problem with dry soil is getting a proper seal at the injection point.** When ammonia is injected into the soil the area occupied is generally 3 to 4 inches around the injection point. In sandy soils this may be closer to 6 inches. If clods are present leaving large air voids, the ammonia may occupy a larger area and will tend to move towards the surface. Dr. John Sawyer, Iowa State Soil Fertility Specialist, recommends using wing sealers immediately above the outlet port on the knife to help reduce the size of the retention zone and reduce the vertical movement of the ammonia. He also suggests closing disks to reduce ammonia loss by covering the injection track with soil. Because ammonia will tend to move more in dry soil, anhydrous ammonia should likely be injected deeper than normal (Figure 1). When injecting into dry soil, try to place the anhydrous ammonia at least 8 inches deep.

Anhydrous ammonia can be applied after soil temperatures drop below 50° F. However, it may be a good idea this year to wait until late winter in hopes of getting enough moisture to improve soil conditions for better sealing of the fertilizer track. If nature does not provide enough precipitation to improve soil conditions it may be necessary to apply irrigation prior to fertilizer application. Keep in mind that in a clay loam soil it will require about 1 inch of water to wet the soil profile to a depth of 6 inches. It should also be noted that excess moisture can also prevent the sealing of injection knife openings. When injecting anhydrous ammonia, your nose is the best indicator of if the ammonia is not being properly held in the soil. After making one round in the field, check to see if you can still smell any ammonia. If

so, then the equipment may need to be adjusted or the application may have to be delayed until better soil conditions are present. Also, the white 'smoke' that is sometimes seen is water vapor and not actually ammonia.

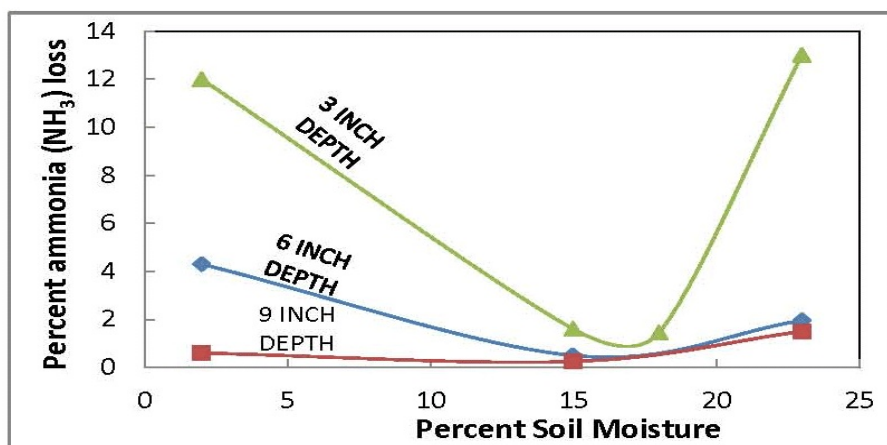


Figure 1. Losses of ammonia from a Putnam silt loam soil as influenced by depth of application and soil moisture (Stanley and Smith, 1956).

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