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**Don't Forget Seed Treatment**  
Mark Gregory

Normally we don't recommend seed treatments. They don't really work to control the root rot organisms.

But in the 1995-96 crop, we had some loose smut scattered in some areas. Seed treatment for control of loose smut does work, and is probably a good insurance option if loose smut was present.

**Effects of Recent Flooding on Forage Crops**

Lonnie D. Sellers

There are no easy answers on how much damage the recent flooding caused to alfalfa and pasture grasses. The duration of flooding that any species can survive varies with temperature, season of growth, soil type, water depth,

and age of stand. A ranking of tolerance to flooding for some of the forages includes:

**Very Tolerant** (20 days or more): Bermuda; **Tolerant** (10 to 20 days): Western Wheatgrass, Reed Canarygrass, Switchgrass, Prairie Cordgrass and Tall Fescue; **Some Tolerance** (5 to 10 days): Big Bluestem, Indiangrass and Johnsongrass; **Low Tolerance** (less than 5 days): Weeping Lovegrass, Little Bluestem, Old World Bluestems (Plains, WW Spar, etc.) and Alfalfa.

How wet the soils stay after flooding can do as much damage as being under water for a few days. So, if there are drainage problems, these should be corrected as quickly as possible.

There is also some concern about the loss of soil nutrients. Nitrogen tends to be mobile in the soil and generally moves in the direction of moving water. Phosphate and potassium are immobile.

Water washing through the soil will only affect the amount of available nitrogen left in the soil. The amount of loss will be greatest in deep sandy soils where water could continually wash down through the soil carrying the nitrogen with it.

Fine textured soils will not lose as much of this nitrogen because the flood waters did not wash through these soils as easily. Plants growing in these soils may initially appear to be nitrogen deficient due to a yellow coloring associated with lack of oxygen until the soils drain and are able to again supply oxygen to the plants.

This newsletter was developed by your team of Area Specialists in the Southwest District. Our goal is the dissemination of research-based information.

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# Fall Temperatures Favor Rapid Buildup of Stored Grain Insects

Miles Karner

September and October are critical months to prevent stored grain insects from becoming established in stored grain. During summer months in Southern Oklahoma grain temperatures exceed 90 °F, in most bins unless aeration fans were run during cool nights. Stored grain insect activity slows and ceases as grain temperatures rise above 90 °F. Grain temperatures begin to fall during September and October into the optimum temperature range for insect development. Insects thrive in grain between 70-90 °F which is the average grain temperatures currently in bins.

A common mistake made by many is relying on the grain protectant (Malathion or Reldan) to keep the grain insect-free. High temperatures and high grade moisture can rapidly break down these grain protectants. Producers can expect up to 4 months protection (up to 1 year in some cases) from these protectants if they are properly applied at binning under our weather conditions. The amount of foreign matter and if the bin was properly cleaned and treated (with a residual spray) before binning will affect the length of protection. Grain that was binned without applying a protectant can become infested within a month after binning. The only way to determine if the protectant is still doing its job is to inspect the bin.

Many producers believe that an occasional look every two to three months will suffice. Bin inspections are more than opening the hatch and looking on the lid for “bugs”. Few if any producers have adequate equipment to make a thorough examination to detect insects. A grain probe (trier), deep bin cup, and set of screens are essential to sample the grain properly. These items can be ordered from your local co-op or farm store. Monthly inspections are mandatory to insure the bins remain insect-free until the grain has been cooled below 50 °F. Each inspection should involve:

- ✓ visual inspection of the grain surface
- ✓ searching for insects in surface grain, deep bin probes, around foundation, doors, and eaves
- ✓ smelling the air that has been pulled or pushed through the grain

Fumigation will be needed if the bin averages 1 primary insect or 5 bran bugs/quart of grain sampled. If fumigation is needed, grain temperatures must get above 60 °F to get your money’s worth.

Resist the urge to fill the bin full. Leveling the grain off even with the walls (6 inches below is better) will allow you easy access to sample the grain and insure that all

areas of the bin can be sampled. It is extremely difficult to accurately check a bin with the cone area full. Besides increasing the accuracy, maintaining proper bin capacity will help with fumigation if needed.

Premature aeration can be your worst enemy. Running your fans with the first cool snap in September or October could set you up for insect problems. Wait to begin this until late October or November when temperatures hover around freezing (30 to 40 °F) for a prolonged period of time. This will insure that the entire grain mass is cooled below 60 °F and daily highs should prevent the rewarming of the grain back into the danger zone for insect development. Once properly cooled below 50 °F, bins should remain insect-free until spring.

## Weed Maps

Mark Gregory

Now that we are past harvest or nearing harvest, we can sure see our weed problems. This has been a very unusual year in our dry period early and the wet period toward the end of summer. Those rains really brought on some weeds.

Now is a good time to make weed maps of fields. As an example, we can easily see nutsedge spots in peanut fields. It is a pretty good bet that if we have it this year in those spots, we will have it next year in those spots.

Knowing what weeds were present and where they were located in the field will help us in our control options next year. Too many times, by the time next year rolls around, we have forgotten something. So go ahead and write it down now.

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