



## Peanut Variety and Production Update

*Todd Baughman -  
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This is the first publication of the 2009 Peanut Progress newsletter. I know all of the extension specialist involved with peanuts are looking forward to getting back in the peanut patch. While things are not necessarily positive from a price standpoint, I know all of us with the Texas AgriLife Extension Service are committed to bringing you up-to-the-date information to help you with management decisions

throughout the growing season. Hopefully, this information will be of a benefit to you and help make peanuts a profitable part of your farming operation. This addition of Peanut Progress includes results of the Runner and Virginia Peanut Variety trials that were conducted across the state, along with a disease outlook, and weed management keys. Results of the 2008 peanut variety trials can be found at: <http://peanut.tamu.edu/pdfs/RPVT-08.pdf>. You will notice that in many cases yields were down from previous years. This was the

result of the extreme weather we had in 2008 but also due to the fact that several of our variety trials were conducted in fields with heavy pressure from Verticillium wilt.

From a runner variety standpoint Tamrun OL07 and ACI 48 performed quite well this past year. Tamrun OL07 is a high oleic multiple-disease tolerant variety released by Texas AgriLife Research. This variety has better



*Todd Baughman*

## Peanut Disease Outlook

*Jason Woodward -  
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Well the 2009 growing season is shaping up much like 2008. Some disease issues to keep in mind include seedling disease, Sclerotinia blight, and Verticillium wilt. Stand establishment is an important aspect of having a productive year, thus it is important to minimize seedling disease early in the season. Several fungi, including *Rhizoctonia solani*, *Pythium*, *Rhizopus*, and *Fusarium* spp. can affect peanut

seedlings. Seedling disease damage is more severe under cool, wet conditions, and it is recommended that planting be delayed until soil temperatures at the 2-inch depth average 70 °F for three consecutive days, and there is a favorable forecast. Historically, the commercial standard has been Vitavax PC; however, there have been several new products registered over the past few years. Results from field trials in 2007 and 2008 have shown that the seed treatments Trilex Star (Bayer CropScience), Trilex Optimum (Bayer Crop-

Science), and Dynasty PD (Syngenta Crop Protection) provide stands equivalent to or better than Vitavax PC. Seed treat-



**Pythium on peanut hypocotyls**  
(Note water-soaked appearance)

### Special points of interest:

- *Production Update*
- *Peanut Disease*
- *Successful Weed Management*

## Peanut Variety and Production Update — Cont.

tolerance to tomato spotted wilt and Sclerotinia than other runner type varieties. ACI 48 is a selection out of the breeding lines that went into the development of Flavorrinner 458. ACI 48 is a little earlier maturing and tends to grade a point or so better than Flavorrinner 458. McCloud performed quite well in South Texas in 2008. It did better in both South and West Texas than it has done in previous years. It however continues to grade lower than some of our other available varieties. McCloud is a high oleic variety developed out of the University of Florida breeding program.

Perry and AT07V topped the Virginia variety trials in yield in 2008.

Both were similar to Gregory in grade and actually had a higher percentage of jumbo pods in 2008. Perry is later maturing than NC7 but



is less susceptible to Sclerotinia. AT07V is a mid-oleic Virginia variety that has been recently released. Additional variety information and

past years performance can be found at [http://peanut.tamu.edu/variety\\_trials\\_and\\_information.htm](http://peanut.tamu.edu/variety_trials_and_information.htm).

As always call me (940.552.9941 ext. 233; or e-mail at [tbaughma@ag.tamu.edu](mailto:tbaughma@ag.tamu.edu)) any time with questions, comments or suggestions for the newsletter. This newsletter is for you the producers and other members of the peanut industry. I look forward to again teaming up with the Texas Peanut Producers Board and all of the other Extension Specialist to bring you the 2009 version of Peanut Progress.

## Peanut Disease Outlook—Cont.

ment options for organic producers are limited. The biological fungicide Kodiak (Bayer CropScience) is labeled for use in organic production; however, its performance has been inconsistent.



*Jason Woodward*

Verticillium wilt, caused by the fungus *Verticillium dahliae*, has been increasing in importance throughout

the Southern High Plains. Management options for this disease are limited. Over the past two years, we have had the opportunity to evaluate Runner and Virginia cultivars in fields with a history of the disease. While the cultivars evaluated differ in their performance a considerable amount of disease can be observed in most all Runner cultivars. The cultivars ACI 48, Tamrun OL07,

Tamrun OL02, and Flavorrinner 458 have had the highest yields; whereas, AT07-V, Gregory, NC 12-C, and Perry have performed similarly. Several trials were established to evaluate chemical options (fumigants and in-furrow fungicides) for Verticillium wilt control; however, no increases in yield or grade were observed. We will continue to evaluate methods or strategies for controlling this disease.

For those of you who have fields infested with *Sclerotinia minor*, causal agent of Sclerotinia blight, you should first opt for planting the partially resistant cultivar. Results from trials conducted in Stephenville showed that Tamrun OL07 out yielded Flavorrinner 458 by 1400 lb/A. If you do not plan on using resistant cultivars, then you should budget for the use of fungicides. Currently, the fungicides Omega (Syngenta Crop Protection) and Endura (BASF Corporation) are

labeled for use against Sclerotinia blight in peanut.

*“Over the past two years, the use of the fungicides has increased yields by 600 to 1800 lb/A.”*

Additional information regarding Sclerotinia blight and other diseases will be made available throughout the growing season. If you have any questions regarding peanut diseases, contact Jason Woodward @ 806-632-0762, or via e-mail [jewoodward@ag.tamu.edu](mailto:jewoodward@ag.tamu.edu). You can access 2008 peanut disease trial results at the following web-site: <http://peanut.tamu.edu/pdfs/2008RESEARCHRESULTS.pdf>

# General Keys for Successful Weed Management in Field Crops

*Pete Dotray - Extension Weed Specialist, Todd Baughman - Extension Peanut Agronomist, and Wayne Keeling - Systems Agronomist*



*Peter Dotray*

- 1. Know your weeds.** Successful weed management starts with correctly identifying the weeds you are trying to control. Many weeds look similar, but may respond differently to mechanical and chemical weed control. There are several weed identification references available in text and on the internet.
- 2. Know all weed control options that are available.** We generally think of herbicides as the only option for weed control. However, other options may include physical (hand pulling and hoeing), mechanical (plowing, cultivation), cultural (seeding date, seed population, row pattern, crop rotation, variety selection), biological (use of insects, mites, diseases, and other biological control agents), and prevention (weed seed dissemination by seeding and movement of equipment). Herbicides in combination with other methods often may be more successful than either method alone.
- 3. Know what your herbicides can and cannot do!** Sometimes we fall into the trap that all herbicides are alike. In fact, they can be quite different. Differences may include water solubility (movement in soil), soil activity, length of soil activity, movement in the plant, spectrum of weed activity, ability to volatilize and move off-target, etc. Knowing what our herbicides can and

cannot do will help us make better choices on which herbicide to choose in light of the weeds present, rotational crop con-

cerns, and if additional weed control help is needed. Always carefully read and follow labeled instructions and pay close attention to rotational crop restrictions, weed size, and the addition of spray additives (crop oil concentrate, fertilizer, non-ionic surfactant, etc.).

- 4. Start with a clean seedbed.** Winter weeds and early-emerging summer weeds, like tumbleweed, should not be present at the time the crop is emerging. Early-season weed competition can slow crop growth and compete for water and nutrients. The most critical time for weed control is the first 4 to 6 weeks after emergence. This is the time that weeds can have the greatest impact on yield.
- 5. “Yellow” herbicides are a good foundation for weed control.** The dinitroaniline herbicides (Prowl, Treflan (trifluralin), Sonalan, others) are effective on annual grass and small-seeded broadleaf weeds. The success of these herbicides is based on using appropriate labeled rates for your soil type. Uniform incorporation of these

herbicides is critical to ensure germinating weeds come in contact with the herbicide prior to emergence. These herbicides can also be used in minimum tillage situations where water is used to incorporate. Keep in mind this may not be the best way to incorporate them, but may be the best way under reduced-tillage cropping systems. Rates for water-incorporation are generally higher than rates for mechanical incorporation, so follow label recommendations for your soil type. With overhead irrigation, it is necessary to apply from 0.75 to 1.0 inch of actual water for proper incorporation of the yellow herbicides. The current Prowl label allows for preplant chemigation or a surface application followed by water and preemergence chemigation or a surface application followed by water. The current Sonalan labels states that Sonalan use in peanuts may be surface-applied followed by irrigation. There is no chemigation label for Sonalan. Treflan (trifluralin) may be chemigated. Do not surface apply Treflan and use irrigation to incorporate.

- 6. Are additional soil-applied herbicides needed?** The “yellow” herbicides are effective on annual grasses and several small-seeded broadleaf weeds, but some escapes will occur. Nevertheless, several larger-seeded broadleaf weeds such as morningglory, cocklebur, and sunflower species, and perennials such as yellow and purple nutsedge and silverleaf nightshade (whiteweed) are not effectively controlled. Using preemergence herbicides may enhance control of these weeds.

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## Successful Weed Management - Cont.

### 7. **Properly timed postemergence herbicides are most effective.**

The success of herbicides applied postemergence is largely dependent on weed size and coverage, which often go hand in hand. Be careful not to exceed weed size restrictions according to the herbicide label. Use crop oil concentrates or other adjuvants if specified on the label. Use an appropriate carrier volume to ensure thorough spray coverage on the weed. A weed that does not come in contact with the herbicide will not be controlled. Not all herbicides have broad-spectrum activity, so match the postemergence herbicide with the weed(s) you are trying to control. Postemergence herbicides will be more effective when applied to non-stressed weeds, which often coincides with the first part of the growing season. Controlling weeds early is when you can achieve your biggest bang for your buck, the time at which weed competition is at its peak.

8. **Be careful of crop injury.** It is very important to understand the

potential causes of herbicide injury. The following is a list of potential causes: improper incorporation, spray-tank contamination, improper sprayer calibration, excessive herbicide rate for the soil type, improper herbicide application timing or method, failure to adhere to crop rotation restrictions, interaction with other pesticides or spray additives, application of herbicide to crops



**Contact herbicide injury**

under stress, off-target drift of herbicides labeled for use in other crops, small concentration of herbicides in irrigation water, and normal herbicide symptomology.

### 9. **Scout fields for unusual weeds.**

Although weed resistance may be over stated in most cases, we need to watch for weed control that decreases over time. A buildup of resistant

weeds does not occur quickly, so be watchful of poor control over time. Using a certain type herbicide may result in weed shifts. Be watchful of new weeds in the area and new weeds per section of land. New, difficult-to-control weeds should be a top priority so small infestations do not become bigger problems.

### 10. **Weed control starts in the fall of the year.**

After harvest, the fall months are good times to work on perennial weed patches. Systemic herbicides like Roundup, 2,4-D, and Clarity can be very effective because these herbicides are absorbed by leaves and move below ground and disrupt storage tissue. This disruption should allow for fewer plants to emerge the following spring. Make sure that applications are made prior to the first frost. Applications after freezing temperatures have occurred will be much less effective due to decreased absorption and translocation.