

UNIVERSITY OF GEORGIA
College of AGRICULTURAL &
ENVIRONMENTAL SCIENCES
Cooperative Extension Service
<http://www.caes.uga.edu/extension>

2010 PEANUT UPDATE: Nematode Management

Bob Kemeraït

Managing root-knot nematodes: Peanut root-knot nematodes are a severe problem in some fields in Georgia, especially in the sandy soils in the southwest corner of the state. Growers initially become aware of the problem when they note stunted plants across patches in their field. At harvest, many of the pods and pegs from these fields are galled and of poor quality. Based upon conversations with growers, it is likely that many fields across the state have problems with root-knot nematodes, but growers may fail to attribute the cause to nematodes. Below are some management options.

1. Use crop rotation to avoid building large populations of nematodes in a field. Cotton is an excellent rotation crop with peanut to reduce levels of nematodes.
2. Plant the root-knot nematode resistant variety '**Tifguard**'. Use of additional nematicides is NOT needed to protect Tifguard; however it is necessary to use a product such as phorate to protect against thrips injury.
 - a. Tifguard is an exciting new variety with excellent nematode resistance as well as very good resistance to tomato spotted wilt, leaf spot, and white mold.
3. Use crop rotation to avoid building large populations of nematodes in a field. Cotton is an excellent rotation crop with peanut to reduce levels of nematodes.
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 - a. Tifguard is an exciting new variety with excellent nematode resistance as well as very good resistance to tomato spotted wilt, leaf spot, and white mold.
 - b. Despite claims that the "peg strength" for Tifguard is an issue, research conducted in 2009 found that pods lost from Tifguard were fewer or equal to those lost by other familiar cultivars. There is currently no research evidence to support the claim of weaker peg strength for Tifguard.
5. Treat the field with **Temik 15G**. From our trials, Temik at 10-lb/A in-furrow followed by 10 lb/A at pegging can provide good control where populations of the peanut root-knot nematode are not too high. It appears that the 10-lb/A application at pegging-time is critical. Note: growers must not apply Temik to the crop any later than 90 days before harvest.

6. **Telone II** at a broadcast rate of 6 gal/A or an in-furrow rate of 4.5 gal/A provides the most consistent and effective control of the root-knot nematodes on peanuts. The following comments are important for the most effective use of Telone II.
 - a. Telone II must be applied 7-14 days before planting to avoid damaging the crop.
 - b. Growers should ensure that soil conditions are favorable for the effective diffusion of Telone II at the time of fumigation. The seed bed should be carefully prepared and free from large clods of dirt. The soil should be neither too dry nor too wet. The soil should not be wet, but should “clump” together when pressed tightly in one’s fist.
 - c. Growers should carefully follow all safety precautions when using a fumigant such as Telone II.
 - d. Some insecticide, e.g. phorate or Temik 15G, should be applied at planting to ensure adequate control of thrips.
 - e. Applications of Temik 15g at 10 lb/A at pegging may still be advisable, even when Telone II was used prior to planting.
7. **NemOut** is a biological control nematicide formulated from the spores of the fungus *Paecilomyces lilacinus*. This product can be applied both in-furrow at planting and to the peanut crop during pegging time to protect against peanut root-knot nematodes. Because the spores are living organisms, they must be treated carefully:
 - a. The formulated spores should be kept refrigerated or frozen when not used. The formulated product has a finite shelf life, even when kept cold.
 - b. They spores not be subjected to excessive heat when being prepared for application.
 - c. The spores should not be applied together with an in-furrow fungicide **but** the spores can be applied with an in-furrow inoculant.
 - d. The NemOut product should be kept adequately agitated in the tank at time of application.
 - e. To get best performance of NemOut, it is important to apply the product with sufficient water and to ensure sufficient irrigation after application. (Follow instructions carefully on the label.)
 - f. Growers who use NemOut must also use another in-furrow product (e.g. phorate) to ensure proper control of thrips.
 - g. Based upon our research, the most consistent results are achieved by applying NemOut at 0.3 lb/A in-furrow and to follow at pegging time with an application of Temik 15G at 10 lb/A.
 - h. There is still much to learn about the efficacy of NemOut in the management of peanut root-knot nematodes in Georgia. Growers who would like to use this product are encouraged to do so on a trial basis until they are satisfied with the results achieved.
8. Comparing Temik 15G (10 lb/A) and NemOut (0.15-0.3 lb/A) is of significant interest to many growers and below are some points to consider.

- a. Field trials assessing the benefits of a nematicide to manage peanut root-knot nematodes are often difficult because of the unequal distribution of the nematodes in the field and the complication of results by other factors.
- b. Because of the issues above, it can be very difficult to adequately differentiate nematicide products without many trials.
- c. Researchers have assessed the impact of Temik 15G on management of peanut root-knot nematodes for many years; research on peanuts and NemOut has only been conducted in the southeastern USA for about 4 years.
- d. From the research trials conducted, Dr. Bob Kemeraite at the University of Georgia and Dr. Jim Rich at the University of Florida are cautiously optimistic with the performance of NemOut when compared to Temik 15G. In many cases Temik 15G and NemOut have produced similar results and have performed better than Thimet or Phorate alone in control of peanut root-knot nematodes. (Note: differences are often numerical, but not statistically significant.)
- e. In most of the studies, NemOut and Temik have performed similarly; however additional studies are needed to fully conclude the similarities and differences between products.
- f. One advantage that Temik 15G has over NemOut is that, as a chemical, it does not need to be stored as carefully as NemOut and has a much longer shelf-life.
- g. When growers use Temik 15G, no more insecticide is needed for management of thrips. When growers use NemOut, they will also need to use a product like Thimet, phorate, or other insecticide to manage thrips.
- h. Also, as a chemical, the interaction in the soil with other factors is more predictable with Temik 15G.
- i. Temik 15G is susceptible to leaching from the root-zone with heavy rains at planting, which does limit the effectiveness of this product.
- j. NemOut should be attractive to the growers primarily because it does not have the significant toxicity of Temik 15G and thus is safer to use.
- k. Additionally, growers already using inoculants could mix NemOut with the inoculant and not worry further about granular hopper boxes.

COTTON

Assessment for 2010: 65 cents per bale

Example: If you grow 100 acres of cotton and the yield is 2 bales per acre, your assessment would be \$130. Your assessment would have been \$200 using the 2009 assessment of \$2.00 per acre.

Deadline to certify cotton acreage: July 15th

The Boll Weevil Program employees will begin installing traps **June 1, 2010**. Trap installation should be completed by **July 9, 2010**. Your cooperation in helping us keep traps standing and serviceable will be greatly appreciated.

If you should have a question about any phase of the Boll Weevil Program, please call 1-800-269-9926.

Due to changes brought about by USDA/FSA, reporting of intended acreage for the Boll Weevil Eradication Program will no longer be required. All cotton acreage will still be certified through the FSA offices by July 15th, but the collection of assessment fees will now be done on a per bale assessment. The Georgia Department of Agriculture/Boll Weevil Program will no longer receive assistance from the FSA offices to collect intended acreage or the collection of assessment fees. There has always been legislation in place outlining the collection of assessments going to a per bale assessment if FSA services were no longer available. In 2009, upon receiving notification of the loss of FSA services effective in 2010, legislation through Senate Bill 43 (SB-43) was updated requiring the first handler/ginner of the cotton to be responsible for collection of assessment fees. The assessment fees will be deducted in the same manner as the Cotton Board and Georgia Cotton Commission fees. Failed acreage as for USDA/FSA purposes is still required following their guidelines.

Valor Beware (Eric Prostko)

It would appear from recent conversions with several County Agents that Georgia peanut growers want to push the use of Valor beyond its labeled recommendations. Specifically, many are interested in applying Valor with their preplant burndown, then again at planting. If you have a grower who wants to do this, please remind them of the following:

- The maximum labeled use rate of Valor in peanuts per year in **3 oz/A**.
- In some recent research, I have applied up to 6 oz/A of Valor (PRE) with no adverse effects on yield (Figures 1 and 2). However, I would **not** recommend that a grower use this much Valor. It is way too risky (*and illegal*) in my opinion, especially if significant rain at occurs at-cracking.
- Growers who apply Valor **before** running a strip-tillage implement should expect at least a 50% reduction in weed control (Figure 3).

- If a grower insists about using Valor in the burndown and again at planting, I would suggest that 1 oz/A be applied with the burndown (*after strip-tilling*) then followed by 2 oz/A at planting.
- Growers who choose to push the Valor use rates beyond 3 oz/A are **off** label and are increasing the chances for PPO resistance to develop more rapidly!!!!!!!!!!
- There are **no** new herbicides being developed for use in peanuts. Valor must be protected at all costs!!

Seeding Rate for Large-Seeded Runner Cultivars (John Beasley)

We've discussed the opportunity to help producers lower seed cost per acre without sacrificing yield potential. Research over the past two years on seeding rate of large-seeded runner cultivars indicate that you can reduce the seeding rate to 5 – 5.5 seed per foot of row without sacrificing yield potential. The cultivars we are specifically targeting for seeding rate reduction are Georgia-06G, Florida-07, Tifguard, Georgia-07W, and AP-4. These five cultivars typically run about 650 seed per pound compared to 800 – 850 for Georgia Green. If planted at 6 seed per foot of row, Georgia Green would take about 105 pounds per acre. The large-seeded cultivars would take about 135-140 pounds per acre at 6 seed per foot of row. By reducing the large-seeded cultivars to 5 seed per foot of row you would end up planting about 112 pounds per acre, which is much closer in pounds per acre to Georgia Green planted at 6 seed per foot of row.

We do not recommend planting Georgia Green or AT 215 at less than 6 seed per foot of row. Those two cultivars are the most susceptible to tomato spotted wilt virus of the cultivars available this year. Since Georgia Greener and Georgia-02C have a medium seed size they are not as costly to plant at 6 seed per foot of row compared to the large-seeded cultivars. If a producer wants to drop the seeding rate of Georgia Greener or Georgia-02C to around 5.5 seed per foot of row, that will help reduce the cost some what closer to Georgia Green at 6 seed per foot of row.

From: Scott Brown AG Notes [mailto:mothman@uga.edu]
Sent: Thursday, April 15, 2010 9:21 AM
To: Colquitt County Farmers
Cc: 'John Beasley'
Subject: Peanut: Seed Size, Seeds/Pound & Determining Seed Rate/Acre

Greetings,

There have been numerous questions about seed size, the number of seed per pound and the pounds of seed required to plant an acre. To determine how many seed per acre you will need, use the following formula for each variety:

Divide your row width expressed as a decimal in feet (38 inch row = 3.16667, 36 inch row = 3, etc...) into 43,560 (square feet in 1 acre) = liner row feet in 1 acre times the number of seed you intend to plant per foot of row = total seed planted per acre divided by seed per pound of your variety (see attached chart) = total pounds of seed planted per acre. Example would be 36 inch row 43,560 divided by 3 = 14,520 X 7 seed/ft = 101,640 seed per acre divided by 628 seed per pound for 06G (from attached chart) = 161.8 pounds per acre.

On grower I talked to last year reported that his seed per pound on 06G was less than 600 seed per pound and that to plant 7 seed per foot on a 36 inch row was going to require over 170 pounds of seed per acre. As you can see we may want to reduce our seeding rate on these large seeded varieties down to at most 6 seed per foot of row. John Beasley has suggested dropping to 5 seed per foot on these large seeded varieties. I leave that to your discretion but the data is clear that there is almost always a yield reduction to exceed 7 seed per foot. In these trying economic times we certainly do not need to spend more to make less so please consider 7 seed or less per foot of row this year when you plant your large seeded peanuts. Do not reduce Georgia Green below 6 seed/foot.

If you are planting twins you should still be using the same number of seed per foot of row as you would with singles you are just using half the number of seed in each row of the twin. Example: 6 seed per foot in single row = 3 seed per foot in each row of the twin. Thus your total seed per foot or row is the same for single or twin rows. This is just the opposite for in-furrow insecticides such as Temik or Phorate/Thimet which is double the rate per acre because you are putting the same amount in each row of the twin.

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SUGGESTED COLQUITT COUNTY COTTON HERBICIDE PROGRAMS FOR PALMER AMARANTH (RR COTTON ONLY)

It is not a question of if you will have glyphosate resistant Palmer amaranth in your fields but when. It is going to happen to you sooner or later so be prepared. Also remember that we have many fields with ALS inhibitor resistant Palmer amaranth in them so precautions should be taken. Use the best yellow and at-plant residual program for your situation.

First Law of Cotton Weed Control: Use a yellow herbicide (Prowl, Treflan or generic equivalent) on every acre.

Second Law of Cotton Weed Control: When in doubt about using a yellow herbicide in cotton refer to First Law of Cotton Weed Control.

RESIDUAL AT-PLANT HERBICIDES: Due to the resistance issues a preemergence at-plant herbicide is strongly recommended. Where possible you should irrigate to activate pre-emergence herbicides, if no rain within 5-7 days after planting. Unless you plan to cultivate all residual at-plant herbicides should be broadcast. Reflex (applied at planting) and Valor (applied preplant) are used interchangeably depending on crop rotation. It is our opinion that only one of these products should be used on the same acreage per crop year. The label does not prohibit the use of both sequentially on the same cropping system but is a UGA recommendation to help prevent PPO resistance development. Reflex should not be used where sensitive vegetables or other crops will be rotated behind treated cotton (especially brassicas such as: cabbage, collards, turnips, etc). Valor has a short rotational restriction for most crops. **Valor can only be used prior to planting: conventionally planted cotton (beds already knocked off) 30 days and a 1 inch rain event; no-till planted cotton 21 days and a 1 inch rain event; strip-till cotton 14 days regardless of rain event).** Valent recommends that Valor should always

be followed by a preemergence herbicide (Prowl, diuron, cotoran, Staple) at planting. Please check the label. WHEN USING VALOR PLEASE FOLLOW THE VALENT VALOR TANK CLEANOUT PROCEDURE.

Note about STAPLE use: It is our opinion that Staple post plant treatments should not be made if a Staple at plant treatment was applied (Situation 3 below). The label does not prohibit the use of sequential treatments in the same cropping system; this is a UGA suggestion to help prevent ALS inhibitor resistance development.

SITUATION 1.) Fields with major glyphosate resistant Palmer amaranth problems but no ALS inhibitor resistance (if Valor (2 oz/A) is substituted for Reflex then it must be applied at least 14-30 days prior to planting, dependent on cropping system, as outlined above):

Step 1.) Yellow herbicide (use full label rate) PPI or at planting.

Step 2.) Reflex (12-16 oz/A) + diuron (Direx) 4L (16 oz/A) at-plant. Note: Staple at 1.7-2.1 oz/A can be substituted for diuron (Direx) at planting but this eliminates the over-the-top glyphosate + Staple option in Step 3.

Step 3.) Glyphosate (label rate) + Dual Magnum (16-21 oz/A) at 4 leaf stage if no Palmer is emerged. If Palmer is emerged then glyphosate (label rate) + Staple (2.6-3.8 oz/A).

Step 4.) MSMA (32-42 oz/A) + diuron 4L (32 oz/A) + crop oil concentrate. Note: Layby Pro or Suprend may be substituted for diuron. Check label for rates.

NOTE: If Palmer escapes occur earlier than 4 leaf then apply Staple over-the-top beginning at the 2 leaf stage of the crop but before pigweeds are 2 inches tall. This would be between Steps 1 and 2. Do not mix Staple with Dual (or any metolachlor product) or apply within 3+ days either way of a Dual application. Valor is labeled to be used at layby but it is our suggestion to not do so if Reflex was used at planting.

SITUATION 2.) Fields with major glyphosate and ALS inhibitor resistant Palmer amaranth problems:

Same as Situation 1.) but Staple is not an option in Step 2 or Step 3.

SITUATION 3.) Fields with heavy Palmer Amaranth populations but sensitive to glyphosate and ALS inhibitors (if Valor (2 oz/A) is substituted for Reflex then it must be applied at least 14-30 days prior to planting, dependent on cropping system, as outlined above):

Step 1.) Yellow herbicide (use full label rate) PPI or at planting.

Step 2.) Reflex (12-16 oz/A) or diuron (Direx) 4L (16-32 oz/A*) or Cotoran (2-3 pts/A) or Staple at 1.7-2.1 oz/A. If Staple is used at plant then it should not be used in Step 3 or for early escapes.

Step 3.) Glyphosate (label rate) + Dual Magnum (16-21 oz/A) at 4 leaf stage if no Palmer is emerged. If Palmer is emerged then glyphosate (label rate) + Staple (2.6-3.8 oz/A).

Step 4.) MSMA (32-42 oz/A) + diuron 4L (24-32 oz/A*) + crop oil concentrate. Note: Layby Pro or Suprend may be substituted for diuron. Check label for rates.

NOTE: If Palmer escapes occur earlier than 4 leaf then apply Staple over-the-top beginning at the 2 leaf stage of the crop but before pigweeds are 2 inches tall. This would be between Steps 1 and 2. Do no mix Staple with Dual (or any metolachlor product) or apply within 3+ days either way of a Dual application.

*To avoid potential rotational issues do not exceed 3 total pints of diuron (Direx) as a pre and post treatment per year. Further, diuron is potentially more injurious to cotton seedlings at higher rates than Cotoran. On lighter soils lower use rates of diuron should be considered. Diuron should not be used on very sandy soils due to potential injury.

SITUATION 4.) Fields with low-moderate glyphosate and ALS inhibitor sensitive Palmer amaranth problems:

Step 1.) Yellow herbicide (use full label rate) PPI or at planting.

Step 2.) Diuron (Direx) 4L (16-32 oz/A*) or Cotoran (2-3 pts/A) or Staple at 1.7-2.1 oz/A. If Staple is used at plant then it should not be used in Step 3 or for early escapes.

Step 3.) Glyphosate as needed.

Step 4.) MSMA (32-42 oz/A) + diuron 4L (24-32 oz/A*) + crop oil concentrate. Note: Layby Pro or Suprend may be substituted for diuron. Check label for rates. Can layby with Valor, since no Reflex was used.

NOTE: If Palmer escapes occur early then apply Staple over the top beginning at 2 leaf stage of crop but before pigweeds are 2 inches tall. This would be between Steps 1 and 2. Do no mix Staple with Dual (or any metolachlor product) or apply within 3+ days either way of a Dual application.

*To avoid potential rotational issues do not exceed 3 total pints of diuron (Direx) as a pre and post treatment per year. Further, diuron is potentially more injurious to cotton seedlings at higher rates than Cotoran. On lighter soils lower use rates of diuron should be considered. Diuron should not be used on very sandy soils due to potential injury. Below is information that Dr. John Beasley generated in 2009 on "Peanut Cultivars and Seed Sizes" that is still very pertinent. For those of you who archive my AG NOTES this article was included in an email last year. SNB

Peanut Cultivars and Seed Sizes (John Beasley)

There will be seed of 13 peanut cultivars available to producers in 2009. There is a tremendous amount of variability in seed size of these 13 cultivars. This variability results in differences in seeding rates when sown at 6 seed per foot of row in the single row pattern and 3 seed per foot of row in the twin row pattern. For example if a bag of 'Georgia Green' seed

were averaging 825 seed per pound and planted at 6 seed per foot of row on 36-inch rows, then the seeding rate would be 106 pounds per acre. If Florida-07 seed are running 650 seed per pound, then the seeding rate would be 134 pounds per acre, which is 28 pounds of seed per acre more than Georgia Green.

I have arbitrarily grouped the runner-type peanut seed into three categories, small-seeded runners, medium-seeded runners, and large-seeded runners. There are no exact figures for grouping these but for the purposes of setting up the 13 cultivars being sold in 2009, I have set the following ranges for small, medium, and large-seeded runners.

Small-Seeded Runners – 800+ seed per pound

Medium-Seeded Runners – 700-800 seed per pound

Large-Seeded Runners – less than 700 seed per pound

In the table below I calculated the average seed count per pound from the irrigated peanut trials at Tifton, Plains, and Midville in the 2008 University of Georgia Statewide Variety Trials. I used the seed counts from the irrigated trials since all peanuts grown for seed should be irrigated. The number of seed per pound will vary from year to year. As it turned out, the 2008 data was more “normal” than other years.

Cultivar	Seed per Pound*
Large-Seeded Runners	less than 700
Georgia-06G	628
Florida-07	638
Georgia-07W	647
AP-4	648
Tifguard	652
McCloud	670
AT 3085RO	685

Medium-Seeded Runners	700-800
Georgia-03L	710
Georgia Greener	724
AP-3	747
Georgia-02C	775
Small-Seeded Runners	800+
Georgia Green	804
York	842

*Average seed per pound from irrigated peanut trials at Tifton, Plains, and Midville in the 2008 University of Georgia Statewide Variety Trials.

In the past few years, the seed size of AP-3 and Georgia-03L has been more in the 675-700 seed per pound per range. It could be that one of you producers in 2009 will have seed of these two cultivars that run closer to 675 seed per pound than above 700. In fact, the seed sizes above may or may not be close to what your producers purchase in 2009. However, our experience has been that the cultivars listed as "Large-Seeded Runners" are consistently large seeded.

Many of the new runner cultivars have much larger seed size than Georgia Green. Therefore, it will take 20-30 pounds of seed more of these cultivars to plant an acre compared to Georgia Green.



PEANUT Rx

For each of the following factors that can influence the incidence of tomato spotted wilt or fungal diseases, the grower or consultant should identify which option best describes the situation for an individual peanut field. An option must be selected for

each risk factor unless the information is reported as “unknown”. A score of “0” for any variable does not imply “no risk”, but that this practice does not increase the risk of disease as compared to the alternative. Add the index numbers associated with each choice to obtain an overall risk index value. Compare that number to the risk scale provided and identify the projected level of risk. 90

Peanut Variety	Spotted Wilt Points	Leaf Spot Points	Soilborne Disease Points
White mold		Limb rot	
Flavorrunner 4582	50	unknown	unknown
NC-V 11	35	30	25
AT-215*,2	30	30	unknown
Georgia Green	30	20	15
Florida Fancy*,2	25	20	unknown
McCloud2	20	25	unknown
AP-4*	20	20	unknown
C-99R4	20	15	25
AT 3085RO2	15	30	unknown
Georgia-05E	15	20	unknown
Georgia Greener*3	15	20	unknown
Georgia-02C _{2,3,5}	15	20	20
Georgia-03L ₅	15	15	20
AP-34	10	25	25
Georgia-06G	10	25	unknown
Florida-072	10	20	unknown
Georgia-07W*	10	15	unknown
Tifguard6	10	15	unknown
York2	10	10	unknown
Georganic	5	10	unknown

Georgia Master Gardener Association, Inc.

THIRTY YEARS OF MASTER GARDENING IN GEORGIA

Look back in time -- THIRTY YEARS -- to 1979. This is when Doctor Butch Ferree of The University of Georgia called four or so County Extension Agents in the Metro Atlanta area together and the Master Gardener Program was launched for the State. The success of this venture is well known throughout the State and the Nation today.

Master Gardeners of Georgia

21st Century Challenge: A Mission of Environmental Stewardship

By Marco T. Fonseca, Extension Horticulturist & State Master
Gardener Coordinator

In 2009 the Master Gardener Program of Georgia celebrated its 30th Anniversary. The Master Gardener Program thrives throughout the state and the country because of Master Gardeners like you who dedicate time and energy to volunteer service in community outreach education as ambassadors of “good will” gardening. In spite of or because of the world’s many high tech achievements, the 21st Century brings many challenges. The struggling economy and global warming are but two of the great issues we face today.

As a microcosm of world-wide concerns, the local community reflects a restless society under a canopy of uncertainty as it contends with high unemployment, dwindling resources and rising costs for consumer goods. On a positive note, however, it is a fact that individuals can make a difference regardless of the endeavor, whether social, political or economic. As Master Gardeners our expertise centers on our love of gardening, the sharing of horticultural knowledge, the promotion of conservation, and community volunteerism. Our many community gardening projects already promote horticultural education, responsible gardening practices and conservation of our natural resources. The new millennium challenge for us should be a mission of environmental stewardship.

Let us recharge our efforts person by person, community by community and county by county throughout the state as we pledge ourselves toward preserving this living planet as the most important inheritance we could ever leave our children and grandchildren. Let us plant the seeds of conservation.

Let us promote a greener urban community one plant at a time: reclaim the empty lots of our cities, teach container gardening to local businesses, beautify our townships with ornamentals, adopt a tree or stream, establish “mini gardens” on city sidewalks and rooftops, “go green,” garden responsibly, and “bring a little bit of nature” in to all aspects of your life: at home, at work and at school.

Today a new renaissance begins: the rising sun is brightly shining on a canopy of green trees beside a riverbank brimming with aquatic life and cooled by a clean breeze wafting toward the distant seashore... Keep the dream alive.

SOYBEANS

Below is information from Dr. Eric Prostko about an old chemical for use on soybeans that offers us another tool to fight resistant Palmer Pigweed.

METRIBUZIN ON SOYBEANS (*Prostko*)

As many of you know by now, I have been actively promoting the use of metribuzin herbicides for residual weed control in soybeans with the hope of delaying PPO resistance. Since many of our younger county agents grew up in the era of RR crops (*i.e. Roundup babies*), it is highly likely that they would be unfamiliar with this herbicide. The following are some facts about metribuzin that may improve your understanding of this herbicide and help you to promote its use when possible:

A) Metribuzin was first sold in 1973 under the trade name of **SENCOR** (Bayer). It was also sold as **LEXONE** (DuPont). Both of these formulations are no longer available. Current formulations of metribuzin are as follows:

D) Metribuzin does not provide adequate control of annual morningglory species. That is why Canopy (metribuzin + Classic) became a preferred formulation in the 80’s and early 90’s. The addition of Classic greatly improved the control of annual morningglory and sicklepod.

E) Metribuzin should **not** be used when 1 or more of the following conditions exist:

- Soils classified as sands

- Loamy sands or sandy loam soils with less than 1% OM
- Soils with pH above 7.5
- When sensitive soybean varieties are planted. A current list of tolerant varieties can be found in 2010 Pest Control Handbook (page 367) or 2010 Soybean Production Guide (page 54)
- In conjunction with an soil-applied OP insecticide (Lorsban, Thimet)
- soybean seed planted less than 1.5" deep
- heavy rainfall after application

TOLERANT VARIETIES

1) There are 7 soybean varieties on the "official" list of UGA recommended varieties that have adequate tolerance to metribuzin. These include the following: AGS 568, AG 5905, Pioneer 95Y20, SS RT5951N, SS RT 6451, AGS Woodruff, AGS Benning, Pioneer 97M50.

2) The other varieties that I have screened would not be considered "official" UGA recommended varieties at this point in time. To become an "official" UGA recommended variety, they must be 2 years of OVT yield data with the variety performing better than average during those 2 years.

3) We are doing the best that we can in trying to screen more varieties. It is not easy and takes time. The list will grow as we collect more data. Nobody really has given a crap about metribuzin up until now.

Regards,

Eric P. Prostko, Ph.D.
Associate Professor and
Extension Weed Specialist
Department of Crop & Soil Sciences
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Metribuzin Herbicides Labeled for Use in Soybean.

Trade Name Active Ingredient Manufacturer

Authority MTZ Metribuzin + Spartan FMC
Boundary Metribuzin + Dual Magnum Syngenta
Canopy Metribuzin + Classic DuPont
Cloak Metribuzin + Classic NuFarm
Metribuzin Metribuzin Loveland, MANA
TriCor Metribuzin UPI

2010 GEORGIA SOYBEAN VARIETY RECOMMENDATIONS

I. Coastal Plain and Piedmont (Early Planted)

MG V

AGSouth AGS568RR*

Asgrow AG5905*

Asgrow DP5915RR*

Dyna-Gro 33X55*

Pioneer 95Y20*

Progeny P5650RR*

Progeny P5706RR*

SS RT5160N*

SS RT5540N*

SS RT5760N*

SS RT5930N*

SS RT5951N*

USG Allen*

USG 7582nRR*

MG VI

AGSouth AGS606RR

Asgrow AG6702

Dyna-Gro V61N9RR

NC Roy

SS RT6207N

SS RT6451N

SS RT6600N

USG 620nRR

USG 7635nRR

USG 76S17

MG VII

AGSouth AGS758RR

AGSouth AGS Woodruff

Asgrow AG7501

Asgrow AG7502

Asgrow DP7330RR

Asgrow DP7870RR

AGSouth Benning

Dyna-Gro V72N7RR

Dyna-Gro V76N9RR

NC Raleigh

NK S78-G6

Progeny P7208RR

SS RT7270N

SS RT7355N

USG 7732nRR

USG 77U28

USG 77S27

MG VIII

NK S80-P2

Pioneer 97M50

II. Coastal Plain and Piedmont (Late Planted)

MG VII

AGSouth AGS758RR

AGSouth AGS Woodruff

Asgrow AG7501

Asgrow AG7502

Asgrow DP7330RR

Asgrow DP7870RR

AGSouth Benning

Dyna-Gro V72N7RR

Dyna-Gro V76N9RR

NC Raleigh

NK S78-G6

Progeny P7208RR

SS RT7270N

SS RT7355N

USG 7732nRR

USG 77U28

USG 77S27

MG VIII

NK S80-P2

Pioneer 97M50

Footnotes:

* - Recommended only for highly productive soils.

- To be dropped from recommended list in 2011.

- New for 2010.

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- To be dropped from recommended list in 2011.

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