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The University of Georgia

College of Agricultural and Environmental Sciences
Cooperative Extension

Lee County Ag Newsletter

Late March 2022, Volume 22, Number 4

Georgia Clean Day (Doug Collins)

A Clean Day event will be held on May 3 from 9 to 3 at the Georgia National Fairgrounds & Agri Center in Perry. This is an opportunity for farmers to dispose of unwanted pesticides. Persons wishing to dispose of pesticides at the event must pre-register by April 28 at 4:00 p.m. See the attached registration form and flyer.

Winter Cover Crops Field Day (Doug Collins)

A Winter Cover Crops Field day will be held on April 13 in Tift County. See the attached agenda and flyer with registration link.

Recording of Cotton Meeting Presentations (Camp Hand)

Although we dove back into in-person production meetings this year, many people asked about virtual options for folks that weren't able to make it to the meetings. The cotton team recorded their talks, and they are now available at the link below. Feel free to include links in your newsletters and all that fun stuff as well. If y'all have any questions or need anything else please let me know.

https://www.youtube.com/playlist?list=PL4yU9BNFlwm6TRpvwrsfLLv5zYTQub75i

Georgia Grain News 3-15-22

Corn that was up during the freeze on Sunday was adversely affected. Most is laying flat with the top growth killed. So far most has a live growing point when you dig out the plant and split the stem to find it. But we're not out of the woods yet, we need to wait 4 days…. so until Thursday to evaluate fully the problem as we may have a little more damage than has been visible so far. In other words we can't tell the full extent of the damage quickly.

We may see that we have partial stands so growers will have to make tough decisions about whether to replant or keep what they have. In some cases keeping what we have will be better than part of our corn crop being planted late and we know that hurts yield.

All 3 photos are of the same field of corn taken 1 day after the freeze. The corn's **growing point** on this 2 week old corn, planted March 1, is below ground where my knife tip is and looks healthy now but we will check back on it 4 days after the freeze event.

Same thing for small grains, wait until Thursday to see what we have. I looked at some on Monday and I couldn't tell much yet, but I did see some flag leaf burn on some oats . There was some oats, wheat and rye that were about to head or heading a little so those will be the most susceptible.

2022 Wheat Disease and Fungicide Update

Rome Ethredge and Alfredo Martinez-Espinoza

1. **Foliar Diseases –** Recent weather patterns in the southern US can contribute to the dispersal and establishment of wheat diseases. Critical wheat growth stages are quickly approaching; therefore, scouting of wheat fields should commence or increase if already occurring. Protecting the flag leaf from foliar diseases is critically important for yield preservation. The decision whether or not to apply a fungicide should be made by carefully weighing variety planted, yield potential, and if current environmental conditions are conducive for disease development at each specific site. Just this week, 3-15-22, Stripe rust has been found in a couple of southwest Georgia counties so we need to be looking closely for it. When seen from a distance it often looks like a dry area, that just looks odd. Here's some images from the UGA Stripe Rust brochure. https://secure.caes.uga.edu/extension/publications/files/pdf/C%20960_4.PDF

Figure 4a. Mature symptoms of stripe rust. Infected plant tissue becomes brown and dry.

Figure 4b. Mature symptoms of stripe rust. Infected plant tissue becomes brown and dry.

Current Extension recommendations are to apply a fungicide anytime stripe or leaf rust is found in a field and when other foliar diseases (powdery mildew, stagonospora leaf/glume blotch, tan spot) are progressing up the plant and reach two leaves below the flag leaf. Bear in mind that Powdery mildew tends to diminish as temperatures consistently reach above 75ºF and RH falls below 85%. Below are the fungicides available for control of foliar diseases.

a. **Triazoles** – metconazole (Caramba), propiconazole (Tilt, Popimax), prothioconazole (Proline), prothioconazole + tebuconazole (Prosaro), and tebuconazole containing products (Folicur, others)
b. **Strobilurins** – azoxystrobin (Quadris, Equation, Satori), fluxastrobin (Evito), picoxystrobin (Aproach), pyraclostrobin (Headline)
c. **Mixed mode of action** – benzoyindiflupyr + propiconazole + azoxystrobin (Trivapro), cyproconazole + picoxystrobin (Aproach Prima), fluoxapyroxad + pyraclostrobin (Priaxor), fluoxapyroxad + pyraclostrobin + propiconazole (Nexicor), flutriafol + fluoxastrobin (Fortix, Preemptor), fluxastrobin + tebuconazole (Evito T), flutriafol + azoxystrobin (Topguard), pydiflumetofen + propiconazole (Miravis Ace), propiconazole + azoxystrobin (Quilt, QuiltXcel), azoxystrobin + cyproconzole (Azure Xtra), propiconazole + trifloxystrobin (Stratego), prothioconazole + trifloxystrobin (Stratego YLD, Delaro 325), pyraclostrobin + metconazole (Twinline, Multiva), tebuconazole + trifloxystrobin (Absolute, Absolute Maxx), and tebuconazole + azoxystrobin (Custodia)

A complete list of products, rates, timings, restrictions, etc. can be found on pages 49-52 of the 2021-2022 Wheat Production Guide https://grains.caes.uga.edu/content/dam/caes-subsite/grains/docs/wheat/Wheat-Production-Guide-2021.pdf and pages 363-365 of the 2022 Georgia Pest

Management Guide. **The section in the Wheat Production Guide contains a wheat fungicide efficacy table developed by the North Central Extension and Research Committee (NCERA-184).**

2. **Fusarium Head Blight/Head Scab** – Fusarium Head Blight requires humid/wet weather coinciding with wheat at **flowering** growth stages for infection to occur. There are no symptoms or signs to scout for, therefore, we rely on weather conditions and predictions. The FHB risk tool http://www.wheatscab.psu.edu **is now live and available**. The platform has been re-designed with new features added so it is important to familiarize yourself with the content again. The application window for chemical control is very tight and must occur during anthesis/flowering. The following are fungicides recommended for control of FHB:
    a. metconazole (Caramba), propiconazole (Tilt), prothioconazole (Proline), tebuconazole (Folicur), prothioconazole + tebuconazole (Prosaro), pydiflumetofen + propiconazole (Miravis Ace)

More information on FHB can be found in the extension publication C1066 https://extension.uga.edu/publications/detail.html?number=C1066 or on page 51 of the 2021-2022 Wheat Production Guide and page 365 of the Georgia Pest Management Handbook 2022.

3. **Small Grain Disease Physical Samples** – All small grain disease samples should be sent to the Plant Disease Clinic in Athens, GA. For the proper address and sample preparation check http://plantpath.caes.uga.edu/extension/clinic.html.

Question of the Week

Last week I had the below photo of a check on corn seed depth behind the planter. Kim Post of Lanier county had the first correct answer and she says "Corn depth looks about right to me. Back home they said plant it at least knuckle-deep. If it's too shallow you run into lodging because the roots off that first node just aren't there."

And Jeremy Kichler of Colquit County says , If Corn is planted too shallow then there can be issues with nutrient uptake and drought tolerance, rootless corn syndrome, and lodging.

Herbicide damage could also result from shallow planting depths."

Yes, corn has a 2 tier root system so planting 2 inches deep is important to make that work the way its supposed to.

It’s important to check behind each planter to make sure the depth is correct because even if the settings are the same on the planting rig, there are reasons why an individual planter needs to be set differently to achieve the same depth as the other planters. When you move to a new field especially with a different soil type we need to check seeding depth again. It can vary as I saw this week when a grower moved from a soft sandy field where the planter was sinking down pretty well then we went to

a heavier soil type field where it was hard, they had just taken the cows off and our effective depth was shallower, so we had to set the planters a little deeper.

Georgia Grain News 3-17-22 Extra (Rome Ethredge)

Corn affected by cold is growing out of it in deep southwest Georgia where we had 4 hours of freezing temperatures 4 days ago with a low of 28.7 degrees F. It was colder as you went north and more hours below freezing.

After the freeze event since the growing point wasn't killed and we've had warm temperatures, we have lots of growth and what I've looked at so far looks ok. We still need to watch how the corn plants unfurl, hopefully they wont get too caught up and have trouble breaking free. This corn was flat on the ground with the tops dead on Monday and now on Thursday its looking much better. Top is still dead but since the growing point survived the leaves have grown and pushed up out of the ground.

If we get to the point of having to decide whether to replant some corn we need to carefully consider the percent of stand affected, the original yield goal, value of inputs already applied, and potential yield loss from a later planting date prior to making any replant decisions.

Small Grains

We may see freeze damage in wheat and oats grown for grain. This is what we're looking for according to the growth stage in the following chart:

Table 1. Freeze injury in wheat.

Growth Stage	Approximate injurious temp. (two hours)	Primary symptoms	Yield effect
Tillering (1-5)[a]	12°F	Leaf chlorosis; burning of leaf tips; silage odor; blue cast to fields	Slight to moderate
Jointing (6-7)	24°F	Death of growing point; leaf yellowing or burning; lesions, splitting, or bending of lower stem; odor	Moderate to severe
Boot (10)	28°F	Floret sterility; spike trapped in boot; damage to lower stem; leaf discoloration; odor	Moderate to severe
Heading (10.1-.5)	30°F	Floret sterility; white awns or white spikes; damage to lower stem; leaf discoloration	Severe
Flowering (10.51-.54)	30°F	Floret sterility; white awns or white spikes; damage to lower stem; leaf discoloration	Severe
Milk (11.1)	28°F	White awns or white spikes; damage to lower stems; leaf discoloration; shrunken, roughened, or discolored kernels	Moderate to severe
Dough (11.2)	28°F	Shriveled, discolored kernels; poor germination	Slight to moderate

[a] Numbers in parentheses refer to the Feeke's scale (see Table 2.)

Univ. Of Kentucky

Most of what we have now in Georgia is in the Joint stage. When we cut the stem in half with a knife we will find the small grain head maybe 5 inches high. It will be small and if it's discolored , yellowish, mushy, has a bad smell then the grain head is affected and yield will suffer. See photo below , figure 7. See other things to look for in the above chart.

OSU

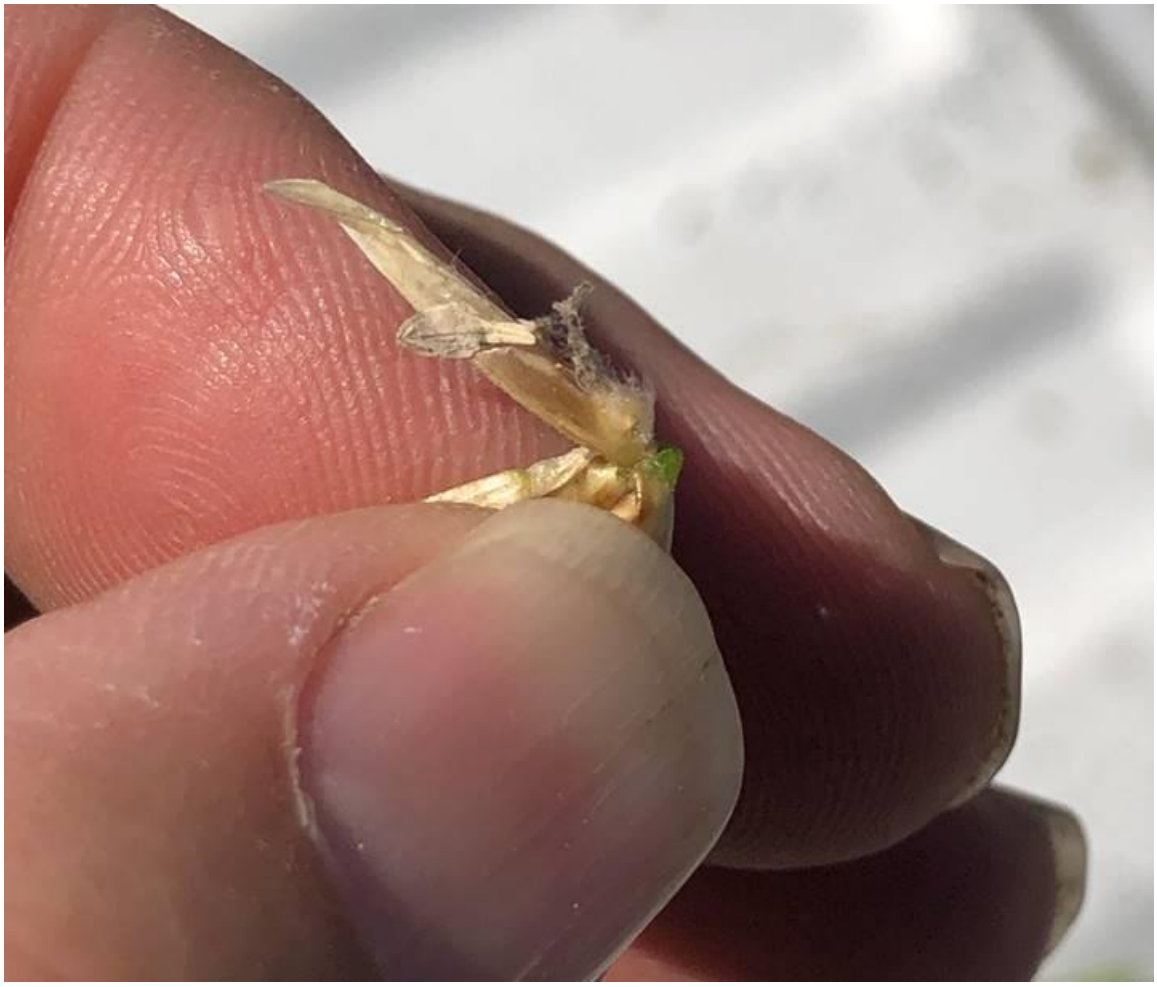
Figure 7. Plants that appear healthy could have damaged heads. Photo on the left is a healthy head and photo on the is a freeze-damaged head).

Figure 9. Freeze during the flowering stage may result in sterility via death of the anthers (male organ) and consequently poor kernel set and grain yield losses.

OSU

The 2 photos below are ones that I took today from a wheat field in Decatur county, Georgia. It is wheat that was planted too early and is more advanced that we would like to have this early in the year.

1st photo below is from a wheat head that was out of the boot stage and exposed to the freeze. The flower parts are dead and it will not make any grain. The second photo of is a healthy head where the plant was in the flag leaf stage so the head was wrapped in the leaf and it looks like its going to be ok. It was hard to see this before today, day 4 after the freeze.



Thanks to Dewey Lee, State Exec. Dir., Georgia Corn Growers Association, for assistance with the above articles.

Georgia Grain News 3-25-22

Irrigating Wheat and other Small grains

We know that small grains yield better with a dry sunny spring but we can benefit from irrigation at times, especially during grain fill.

Dr. Wes Porter, UGA, says he normally recommends ET replacement on small grains and this time of year we are at or above .10” to .15" per day putting us at 0.75 to 1" per week. And this follows the Univ. of Florida small grains crop water use curve in the 2nd slide below as well. You can get the ET rates from your local UGA weather station.

We need to avoid watering during bloom to keep from making Fusarium Head scab disease worse. Then, follow the ET rates or as a rough guide: 0.75 to 1 inch a week if we don’t get it from rain or snow, lol.

Stop watering when we get to the hard dough stage if we have moisture.

Irrigation of Small Grains

- Do better with a dry spring – Sunshine
- Can benefit from water during Grain fill especially
- 1:1 with ET rates is ok(per Dr. Wes Porter)
- Try not to water during bloom

Water just before that at Flag leaf and continue after blooming – 0.75 to 1 inch a week with checkbook method

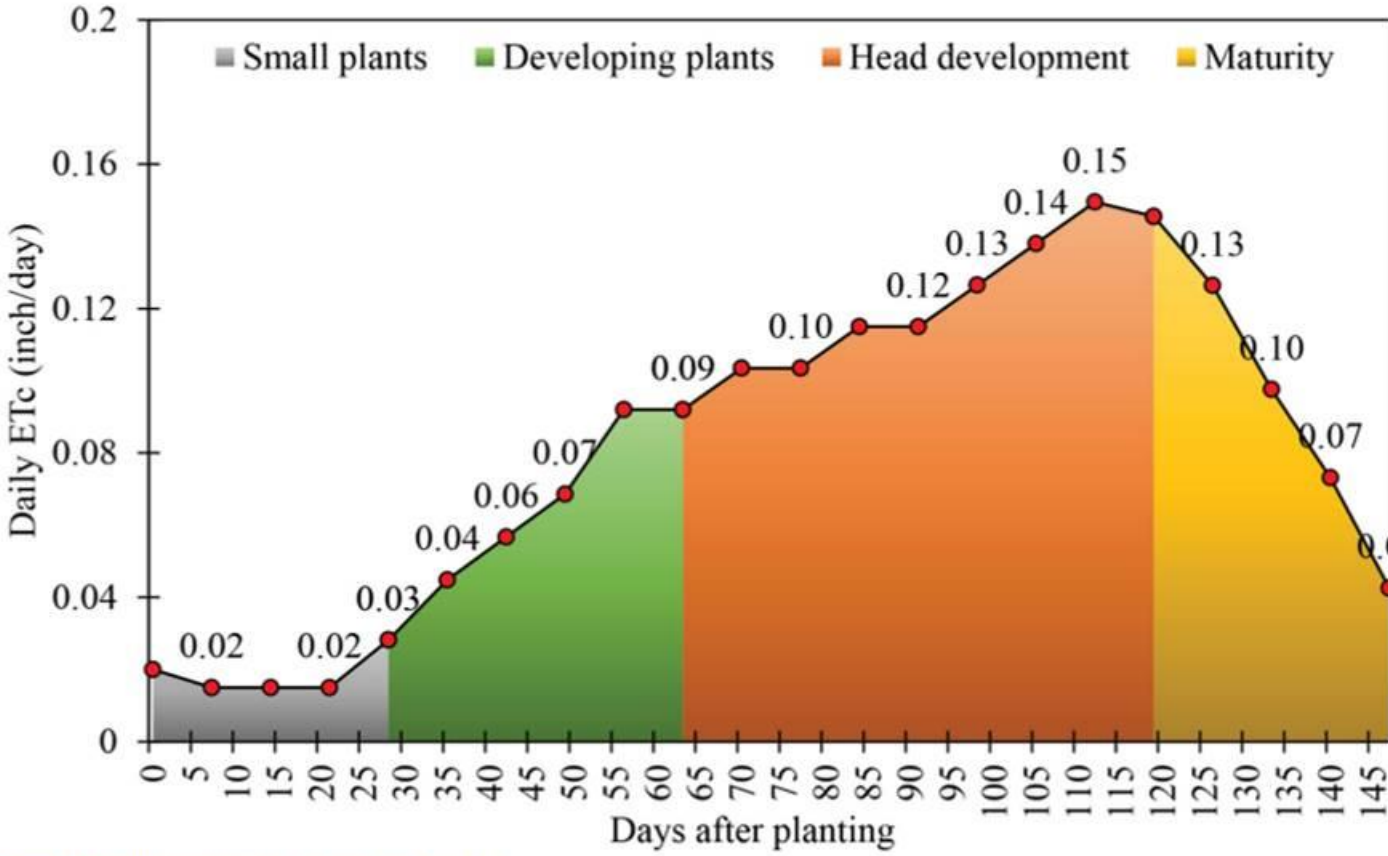


Figure 13. Small grains crop water use (inches/day).
Credits: Vivek Sharma, UF/IFAS

CROP WATER USE AND IRRIGATION SCHEDULING GUIDE FOR NORTH FLORIDA[1]

0.75 to 1 inch per week during Grain Fill

2022 Row Crop Disease Update 3-14 (Bob Kemerait)

In my wheelhouse, planting field corn is once again upon us, or soon will be. I know I get repetitive, but the message at this point is the same. Corn growers will have one chance to fight nematodes, IF they need to.

I say "IF they need to" because I had a corn grower contact me last week about the best nematicide to use. I didn't remember that he had a nematode problem under his corn and I asked him about it. He replied,

"Well, I am not really sure I do, but I didn't want to make a mistake and watch from the sidelines you always talk about."

Point well made. I told him that he has ONE CHANCE to make a BEST decision. Using a nematicide where a grower doesn't have a nematode problem is not a "best" decision. Using a nematicide where a grower DOES have a nematode problem IS a "best" decision.

Products growers may consider at this point for nematode control on corn include:

Counter 20G (do not use with ALS herbicides, not blog from Dr. Eric Prostko)

Propulse (I do not recommend mixing with a starter fertilizer)

Velum (I do not recommend mixing with a starter fertilizer)

Overland (abamectin, not enough data to recommend)

At-plant fungicide

Xyway LRF (flutriafol, applied in 2 X 2 pattern and NOT in-furrow directly on seed. This fungicide is marketed for season-long control of diseases like northern and southern corn leaf blights and grey leaf spot. I have not had the product in a trial where I had a problem with those diseases, so I am not sure it is true of not. FMC reports that Xyway can be mixed with starter fungicides. I have not done that work.)

2022 Row Crop Disease Update 3-15 (Bob Kemerait)

In discussion between me, Keith Rucker (my friend and colleague at Bayer CropScience) and a consultant in Florida, Keith sent this e-mail discussing thoughts on why we are hesitant to mix Velum, Propulse, and many other products, to include fungicides and nematicides, with fertilizers. Below is Keith's response. NOTE: Keith is NOT trying to provide advice from the standpoint of a soil fertility specialist, only making points as to why mixing fungicides and nematicides with fertilizers must be done with caution, if at all.

"As Bob has already pointed out, some nutritional products will mix with Velum while others will not. My personal preference is to go with straight Velum with no fertilizer to minimize the possibility of a problem. While it is tempting to want to mix a fertilizer (with Velum) and apply in-furrow the bottom line is

that it adds risks to everything in that we do not have a good understanding of what happens with efficacy when Velum is mixed with a fertilizer. Physical incompatibility is the biggest problem – Velum was designed to mix into a water solution and when you try and mix with a fertilizer, you are basically mixing the Velum into a salt solution, which creates a situation were chemical reactions can occur that could cause things to not work properly. As for the need to add a fertilizer in-furrow at plant, we have lots of opportunities and ways to get fertility to the plant but we pretty much only have one shot to treat for nematodes – if you are in a nematode problem field, doing the Velum right has the potential to increase yields, but if we do it wrong, it can hurt yields. Fertility is also extremely important but, we can take care of that easily outside of making an in-furrow application. Not to mention that in some cases, getting a fertilizer too close to the seed can actually hurt the plant!

If you do want to mix with fertilizers, here is what we suggest:

1 – Do a jar test to check for physical compatibility before mixing in a tank – many fertilizers do not mix well with Velum/Propulse

2 – DO NOT use straight fertilizer as a carrier

3 – At least 50% of the total carrier volume should be water

4 – Fill the tank half full with water and add the Velum/Propulse and mix well

5 – Add the fertilizer to the tank

IMPORTANT – DO A JAR TEST FIRST using the same mixing instructions as above before doing a tank mix!

Keep in mind that the above guidelines only take into consideration physical compatibility – right now what impacts the fertilizer has on pest efficacy and phytotoxicity is pretty much unknown."

2022 Row Crop Disease Update 3-28 (Bob Kemerait)

Planting field corn is well-underway along the Coastal Plain of Georgia, though not yet in full-swing in northern parts of the state.

Decisions to be made in my arena now by corn growers include a) use of nematicides and b) whether or not to use Xyway LRF, marketed by FMC of "season long control" of disease to included northern and southern corn leaf blights and gray leaf spot.

For use of nematicides, from results from my studies:

1. Under moderate threat from root-knot nematodes, I expect similar yield gains from Counter 20G (5-5.5 lb/A) to Propulse (8.0 fl oz/A) to Velum (3.0 fl oz/A). Yield increases would be in the neighborhood of 10-20 bu/A.

2. Where threat is from sting and stubby root nematodes, the potential for yield improvement may be as high as 65 bu/A. In such situations, Counter 20G (5.5 lb/A) is some better than Propulse (8 fl oz/A) which is some better than Velum (3 fl oz/A).

3. Remember: No ALS herbicides with Counter 20G; do not mix starter fertilizers with Velum or Propulse.

Xyway LRF (flutriafol) is NOT to be place directly in-furrow on the seed. According to our colleagues at FMC, Xyway LRF is best applied in a "2 X 2" pattern (2 inches to the side of the seed furrow and 2 inches deep). Dr. Bruce Stripling says where 2 X 2 is NOT practical, perhaps because of a rock soil, a "2 X 0" can be used where Xyway LRF is dribbled at the max rate, 15.2 fl oz/A, on the soil surface.

These recommendations are from FMC; I have not had a trial where I can TRULY judge the season-long benefit of Xyway for diseases like northern and southern corn leaf blights. My suggestion to growers is that if they choose to use Xyway LRF, consider leaving a couple of passes "untreated" to see what difference the fungicide made in terms of disease control and yield.

Pigweed At Burndown? (Prostko)

I received this picture from a grower yesterday who was about to burndown with some Roundup (*before looking in the field*). This field was treated with a Roundup + 2,4-D combo several weeks ago (*but no residual*). Two main takeaways here: 1) always a great idea to include a residual herbicide in a preplant burndown weed control program especially when applied many weeks before planting; and 2) the very best thing a grower can put in a field is a foot. In this scenario, Roundup would not have been a great option because of resistance. The grower wisely switched to Gramoxone (*and was also including Dual Magnum*) since he will be planting field corn and soybean.

Posted by UGA Weed Science at Tuesday, March 29, 2022

FRIDAY, MARCH 18, 2022

Preplant Burndown Update (Prostko)

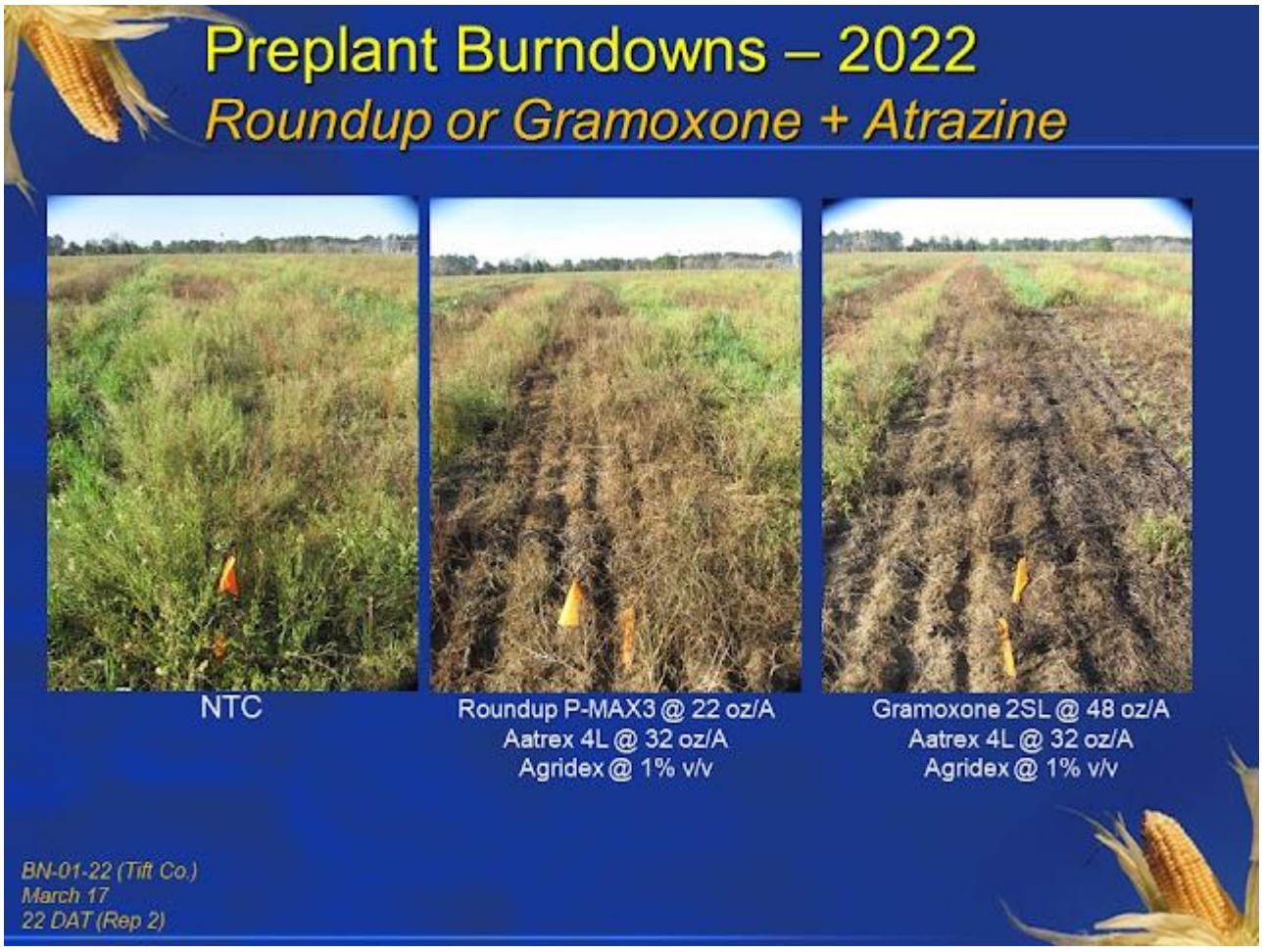
Some responses to a few common questions this week about preplant burndowns:

1) What is the plant-back restriction for field corn following an application of 2,4-D?

Plant-back restrictions for field corn after a burndown application of 2,4-D are 7 days (16 oz/A) or 10-14 days (>16 oz/A)

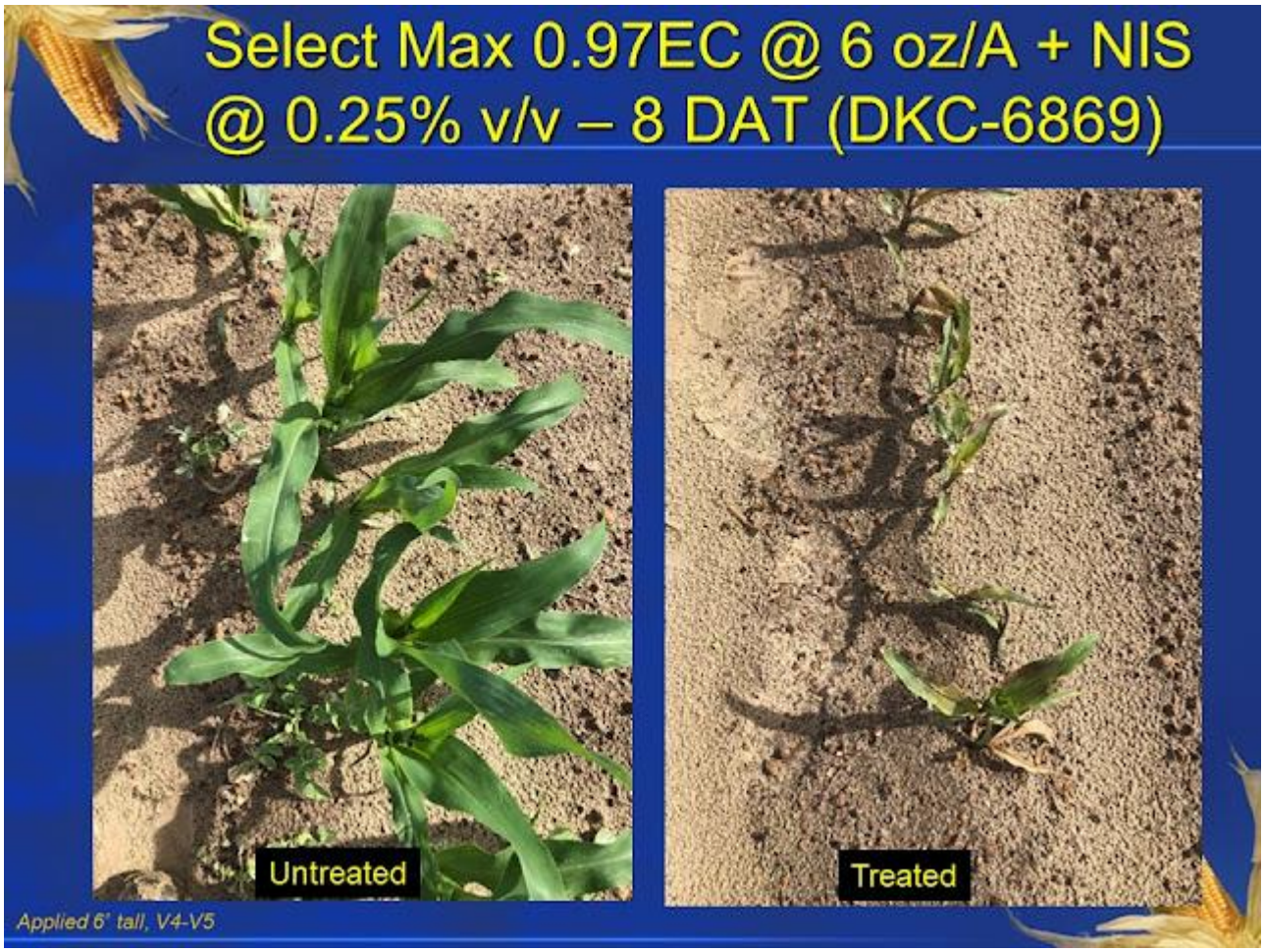
2) If a grower cannot wait to plant field corn in 7-14 days after an application of 2,4-D, what other burndown options are available?

Roundup (glyphosate) or Gramoxone** (paraquat) + Atrazine 4L (32 oz/A) is my first choice. There are no field corn plant-back restriction for these treatments. Check out the following picture from my burndown plots yesterday in a Tift Co. growers' field (*many thanks to Justin H. and Regan V.*).



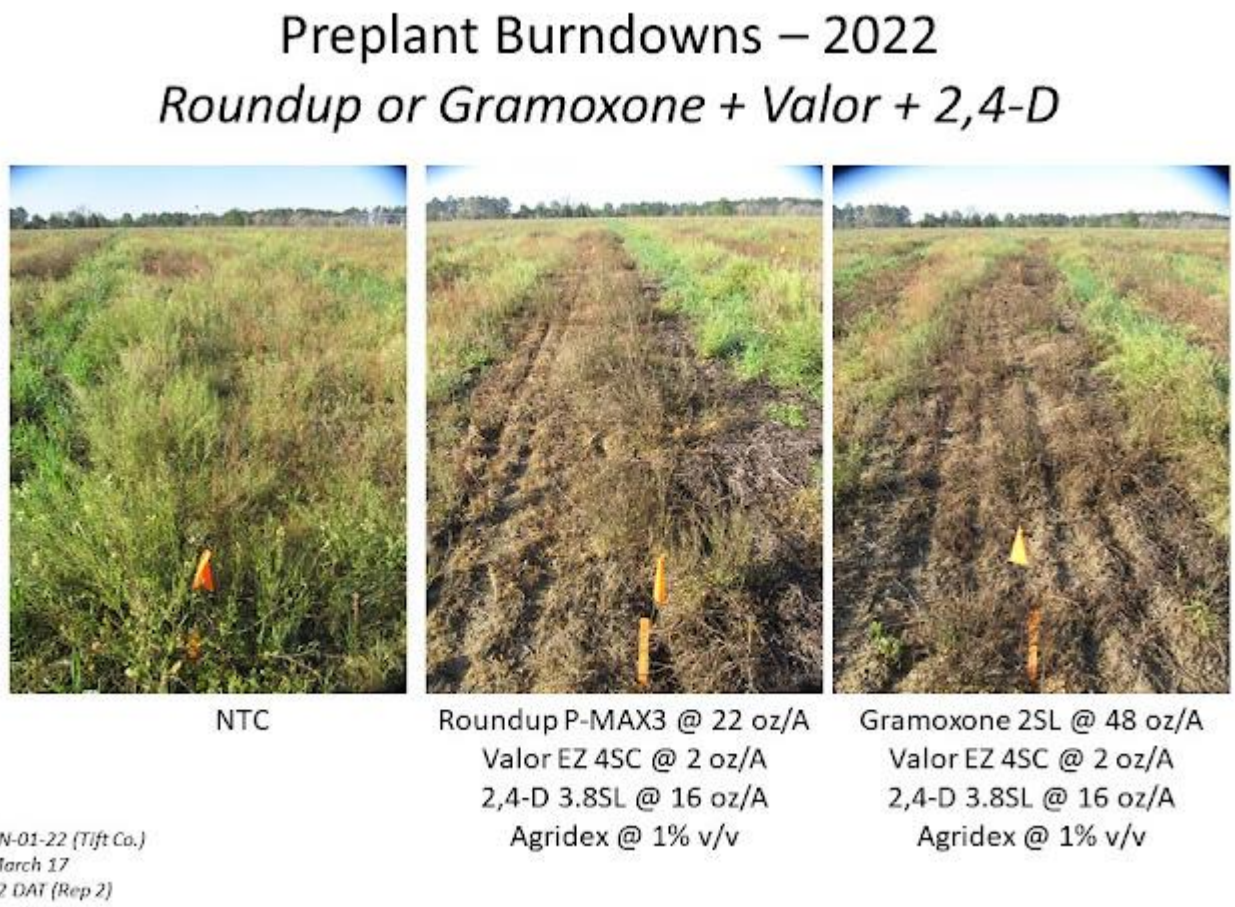
3) What's the best option for controlling a failed stand of field corn?

It has been my experience that the best option for controlling a failed stand of field corn is to use Select Max 0.97EC (*or other equivalent formulations*) @ 6 oz/A + NIS. But, there is a for real **6 day** plant-back restriction (field corn) for this treatment. Since many of our current field corn hybrids have tolerance to both Roundup and Liberty, neither of these are great options. Gramoxone has been too inconsistent for me to have much confidence. FYI, it takes about 10-14 days before you really start to observe the full effects of Select Max.



4) What is our current recommended preplant burndown program for peanut?

Roundup or Gramoxone** + Valor @ 2 oz/A + 2,4-D (1 pt/A). An additional 2 oz/A of Valor can be applied at planting. Peanuts can be planted anytime.



When using Gramoxone on small grain cover crops, applications need to be made when seedheads are present.

Freezing Temperatures Damage Pecan Trees

Mar 16, 2022 | Written by Lenny Wells

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An early budbreak just prior to last weekend's freezing temperatures has caused damage to the developing buds of early pecan varieties. Below are some photos of budbreak on Cape Fear pecans

taken in Crisp County on Friday afternoon. Elliott buds in the same orchard were also open. Budbreak occurs from the bottom up, so most of the budbreak on trees that had broken bud was occurring on the lowest limbs.

Temperatures at this site reached 23 degrees on Saturday. Any exposed green tissue or buds that had reached outer scale split were susceptible to injury from these temperatures. I checked these trees again yesterday morning and this is what I found:

Exposed/elongating buds which were at outer scale split stage or later were damaged. Again, most of the open buds were primarily on lower limbs. It is not likely that we will see pistillate flowers produced on damaged buds or the secondary buds that re-grow at these nodes. This will likely result in some crop loss, although the extent of loss is not clear. Often buds further down the shoot or higher in the tree, which are not as far along in development (no outer scale split) can develop properly and still produce pistillate flowers, which is the hope in this situation.

I also cut open some buds from these trees that were still closed tightly and had not undergone outer scale split. A small number did show dead tissue inside (sorry for poor quality of the photo but I think you can tell).

However, most of the buds that were still tightly closed were still bright green inside, indicating no damage. These buds should produce pistillate flowers.

I am also concerned with the potential effect of this freeze on young (newly planted-3 yr old) pecan trees. Often when this occurs, the cambium on the south or southwest side of the tree (usually at the base) is damaged by abrupt fluctuations in temperature while the sap is flowing. Young and/or thin-barked trees are most susceptible to this type of injury. Injury may not even be apparent early in the season as the remaining undamaged cambium is able to keep up with the tree's water demand. As May/June arrives, the water demand increases with the rising temperatures and the trees crash when the remaining cambium can no longer support them. I hope I am wrong but I expect to get a number of calls on this issue around that time.

Most of the damage I have seen/heard about to date has been from Cordele, North to Ft. Valley. Areas further south did not reach temperatures quite as low as 23 degrees and budbreak does not appear to have been as far along. It is likely that trees in middle Georgia received a few more chill hours, which would then require fewer heat units to trigger bubreak. For this reason I do not anticipate the same level of damage south of Cordele.

Unfortunately, we still have a ways to go before all danger of freezing temps has passed and we could still face more of this. I expect to see budbreak progress further and more unifromly within the state by late next week and we have about a month to go before Easter, which means we are not out of the woods yet.

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