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April 2017

Ag News

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Off the Top...

The Impact of Solar Facilities on Communities and Farms in NC

On May 3rd at 6:30 pm Extension Corn Specialist Dr. Ron Heiniger and NC Clean Energy Center representative Tommy Cleveland will be present to discuss information on solar energy, its pros and cons, the solar industry, the potential impact of the solar industry on agriculture and your communities, and the future of solar power. The meeting will take place at the J W Faison Building Auditorium (where we have grower meetings).

Wheat Crop 2017

Diseases that have been identified in our wheat this year are powdery mildew and striped rust. Our current growth stage is a good time to decide if you want to apply a fungicide. Page 4 has a list of fungicides and their performance ratings for different cereal diseases. Another critical time will be once our wheat is heading and starts to flower or pollinate, this will be when wheat is most susceptible to head scab infection. Below I have provided some website links to help you make management decisions for your wheat crop.

Information about optimal sprayer setup for head scab management can be found for ground and air applicators at:
http://www.smallgrains.ncsu.edu

Information about head scab identification and management can be found at:
http://www.smallgrainsncsu.edu/head-scab.html

The scab forecasting website can be viewed at: http://www.wheatscab.psu.edu

Cotton Planting Information

During winter meetings, many of you signed up to receive text messaging from me. This year we will send out DD-60 information based on weather forecast. This information is not intended to be the "gospel" but a tool to assist you in your cotton planting decisions. You are the one who best knows your soil conditions and how many planting days you need to get your cotton crop planted in a timely fashion. I have included the information below discussing things to consider when making cotton-planting decisions. Also, updates are available on cotton.ces.ncsu.edu

Cotton Planting 2017…

Take time to find out the cool germ on the different lots of cottonseed you plan to plant this year.

In cotton, there are two common germination tests, standard germination and cool germination. Standard germination results are reported on the seed tag. Standard germination tests are conducted at 86 degrees F for sixteen hours per day and 68 degrees F for 8 hours per day. In North Carolina, it is highly unlikely that all of the cottonseed you plant will benefit from these close to ideal conditions.
The test that is of more practical value to growers in North Carolina is the cool germination test often referred to as "cool germ". Cool germ tests are not reported on the seed tag. The seed companies run this test on all seed and the dealer or distributor usually has this information. If not, the value can be obtained by calling the seed company with the lot number of the seed. NCDA can run cool germ tests on your seed if needed.

What is considered to be "good" cool germ results? Being aware of the cool germ results is probably more important that what is actually a good or bad cool germ. As long as you are aware of the cool germ values for a given seed lot you can plan accordingly. A somewhat arbitrary division of cool germination values follows in Table 1.

Table 1. Cool germinations ratings.

Cool germ value	Rating-Comments
Under 50	Bad – most companies would not sell the seed
50-65	Acceptable – use special care with this seed*
65-80	Good
Over 80	Superior

*What is meant by using special care with this seed?
There are several things a grower can do to make it likely that this type of seed (cool germ 50-65%) will produce an acceptable stand:
1. **Do not plant during cool periods.**
Cool temperatures can be especially detrimental during the first two days after planting. The DD60 forecast for the five days following planting is the best indicator we have of planting conditions. The table below offers guidelines as to the relationship between DD60's and planting conditions.
2. **Do not plant too deep.** This is especially critical on our Coastal plain soils that tend to crust.
3. **Do not use low-end seeding rates** for a given soil type to save money on biotechnology fees.
4. **Consider protecting the seed** with in-furrow fungicides especially if the field has a history of seedling disease or is wet natured. This is especially true if planting under less than ideal temperatures.
Table 2. The relationship between DD60's and planting conditions.

(Adapted from Deltapine Cotton Management (Guide)

DD60's accumulation in the 5 days following planting	Planting Conditions
Less than 10	Very Poor
11 to 15	Marginal
16 to 25	Adequate
Greater than 25	Very Good

Cotton seedlings are particularly susceptible to cool weather when they first take up water (imbibe) and the 2 days following imbibition.

Thrips Forecasting Tool Available Now by Dominic Reisig

http://climate.ncsu.edu/cottonthripsrisk/

Why use this tool? Most everyone knows that you need something preplant for thrips, whether that is an insecticidal seed treatment or an insecticide in-furrow. But should you use a seed treatment and an in-furrow? What about a foliar spray? This tool can help with those decisions.

What does this tool bring to the table? We have known for some time that thrips injury is a function of weather-driven seedling growth and thrips pressure. This tool uses planting date, temperature, precipitation and knowledge of when thrips pressure will occur and how severe it will be to predict when cotton is at risk.

How can I use this tool? You can use this tool to save time and money on your farm by focusing your most intensive thrips management efforts on cotton that will be planted at a time that is most at risk for thrips. It would also be a good idea to scout these areas more intensively as well. If you base a thrips spray off injury, it is usually too late to prevent damage to the crop. Immature thrips are a good sign that at-plant insecticides are running their course and a spray might be needed. Don't forget that cotton is most sensitive to thrips damage when the 1st true leaf begins to appear between the cotyledons. Although foliar sprays at later stages (2-3 true leaves) may occasionally benefit yields, targeting sprays when the 1st true leaf appears has been proven to be the most effective.

When should I use this tool? This tool will give the best predictions within 10-14 days after the date you use it since it is based on weather forecasts. Therefore, you could use this tool two weeks before you plant to make preplant decisions, but you should also check it a few days before you plant. You should also use the tool every week after you plant to track damage potential until cotton is at the four-leaf stage.

How do I use this tool? A web-based presentation
http://www.plantmanagementnetwork.org/edcenter/seminars/cotton/ThripsInfestationPredictor/

has been prepared to guide users on the background of the tool. This presentation includes an overview of how to use this tool for individual locations in North Carolina and the Southeast US Cotton Belt.

How confident should I be with using this tool? Any forecast will have some uncertainty. However, this tool is based on many years of data from across the Southeast US Cotton Belt and has been validated several years since. We are very confident that this tool, when used as instructed, will accurately forecast thrips risk to cotton.

The chart entitled "Fungicide Efficacy for Control of Wheat Diseases" on page 4 comes to you by way of Perdue Extension.

Fungicide Efficacy for Control of Wheat Diseases[1]

Fungicide(s)				Powdery Mildew	Stagonospora Leaf/Glume Blotch	Septoria Leaf Blotch	Tan Spot	Stripe Rust	Leaf Rust	Stem Rust	Head Scab	Harvest Restriction
Class	Active Ingredient	Product	Rate/A (fl. oz)									
Strobilurin	fluoxastrobin 40.3%	Evito 480SC®	2.0-4.0	G	U	U	VG	U	VG	U	NL	Feekes 10.5 and 40 days
	picoxystrobin 22.5%	Aproach SC®	6.0-12.0	G[1]	VG	VG[2]	VG	E[3]	VG	VG	NL	Feekes 10.5
	pyraclostrobin 23.6%	Headline SC®	6.0-9.0	G	VG[2]	VG[2]	E	E[3]	E	G	NL	Feekes 10.5
Triazole	metconazole 8.6%	Caramba 0.75SL®	10.0-17.0	VG	VG	U	VG	E	E	E	G	30 days
	propiconazole 41.8%	Tilt 3.6EC®4	4.0	VG	VG	VG	VG	VG	VG	VG	P	Feekes 10.5
	prothioconazole 41%	Proline 480SC®	5.0-5.7	U	VG	VG	VG	VG	VG	VG	G	30 days
	tebuconazole 38.7%	Folicur 3.6F®4	4.0	NL	NL	NL	NL	E	E	E	F	30 days
	prothioconazole19% tebuconazole 19%	Prosaro 421SC®	6.5-8.2	G	VG	VG	VG	E	E	E	G	30 days
Mixed Modes of Action[5]	benzovindiflupyr 10.3% propiconazole 11.7% azoxystrobin 13.5%	Trivapro A EC® + Trivapro B SE®	4.0 + 10.5	VG	VG	VG	VG	E	E	VG	NL	Feekes 10.5.4
	cyproconazole 7.17% picoxystrobin 17.94%	Aproach Prima SC®	3.4-6.8	VG	VG	VG	VG	E	VG	U	NR	45 days
	fluoxastrobin 14.8% flutriafol 19.3%	Fortix®	4.0-6.0	U	U	VG	VG	E	VG	U	NL	Feekes 10.5 and 40 days
	fluxapyroxad 14.3% pyraclostrobin 28.6%	Priaxor®	4.0-8.0	G	VG	VG	E	VG	VG	G	NL	Feekes 10.5
	metconazole 7.4% pyraclostrobin 12%	TwinLine 1.75EC®	7.0-9.0	G		VG	E	E	E	VG	NL	Feekes 10.5
	propiconazole 11.7% azoxystrobin 13.5%	Quilt Xcel 2.2SE®4	10.5-14.0	VG	VG	VG	VG	E	E	VG	NL	Feekes 10.5
	prothioconazole 10.8% trifloxystrobin 32.3%	Stratego YLD®	4.0	G	VG	VG	VG	VG	VG	VG	NL	Feekes 10.5 35 days
	tebuconazole 22.6% trifloxystrobin 22.6%	Absolute Maxx SC®	5.0	G	VG	VG	VG	VG	E	VG	NL	35 days

[1] Efficacy ratings: P=poor. F=fair. G=good. VG=very good. E=excellent. NL=not labeled for use against this disease. U=unknown efficacy or insufficient data to rank product.

[2] Product efficacy may be reduced in areas with strobilurin-resistant fungal populations.

[3] Efficacy may be significantly reduced if solo strobilurin products are applied after stripe rust infection has occurred.

[4] Multiple generic products containing the same active ingredients also may be labeled in some states.

[5] Products with mixed modes of action generally combine triazole and strobilurin active ingredients. Priaxor® and the Trivapro® co-pack include carboxamide active ingredients.