



The Chem Gro Crop Watch, Issue #3, 7/7/15

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Corn fungicide & the need for a “bird’s eye view”. With our current weather pattern of cool temperature, heavy dews, and frequent rains; it is no doubt in my mind that we will have a high fungal disease environment in our corn crop. However, with the onslaught of rains that we have had in June, I think it is very important to each one of you as a grower to visually see the condition of every corn field that you own and determine if the return on investment is likely to happen with a fungicide application.

Last week, one of my customers invited me to go on a plane ride and do a visual tour of their fields. The aerial view was very “eye opening” to say the least. Our plane ride toured the east-west Hwy 9 area between Hwy 67 and Hwy



94 north-south areas. I would estimate that 50% of the corn and soybean fields had some major yellowing and stunting due to poor water drainage. Several corn fields also showed severe root lodging and/or green snap from strong winds. However, the other 50% of corn and soybean fields looked very good with minimal water damage (assuming pattern tile, or locally the field was in an area that missed the heavier rains.) **It is these fields that we need to identify from the air (either by plane or by drone) and focus preserving the yield potential with a fungicide.**

Understanding fungicides. The words “curative” and “preventative” get used frequently when talking about fungicides. The preventative wording of a fungicide is the most important word to understand. When a fungicide gets applied to a leaf, the chemical absorbs into the leaf tissue where it prevents the fungal spore from germinating. Without this preventative property, the spore would grow into the leaf tissue and cause that tissue to die. Dead plant leaf tissue no longer captures sunlight for photosynthesis, which leads to less sugar production for grain fill in the plant.

The “curative” word to describe fungicides to me is quite misleading. Fungicides that have these properties cannot “fix” dead plant tissue, but rather they have some ability to kill the fungus that is already present within the leaf cells. The damage is done, however further damage is halted. **The best use of a fungicide is used before severe disease infection takes place, to prevent large areas of leaf tissue loss (in an environment that supports a large amount of disease).**

Understanding our future environment. The payoff from fungicides varies greatly from year to year. The longer the environment is favorable for fungal disease development (cool, frequent rain, dews), the greater the yield response for the fungicide. The opposite also holds true for most corn fungal diseases. Hot and dry weather will greatly slow down or to certain limits prevent many fungal diseases. When deciding on if you are going to use a fungicide, you need to have (with some confidence) as to what the short term weather is going to do as far as disease development. Granted, this is easier said than done as meteorologists have a hard time predicting what the weather will be like 2 days from now, let alone the next 30-60 days. I was able to get these weather prediction forecasts off our DTN service at Chem Gro.

I realize that I am trying to predict the future (and if I was that good at it I would have already predicted the winning Megabucks lottery and I would not be writing this letter as I would be sitting on some exotic beach drinking fruity alcohol beverages!) but as you can see, the 90 day precipitation forecast is above normal with the temperature forecast below normal for our area. This forecast, along with the current weather pattern that we are in; tells me that a fungicide application (or applications ??) should pay BIG dividends in corn this year. But again, this will be in corn fields that are not already severely yield limited by poor water drainage.

Another thing to consider is how much information your seed company has on the genetic tolerance / resistance to many foliar corn diseases like Northern Leaf Blight, Gray Leaf Spot, and Anthracnose Leaf Blight. As fast as hybrids are brought to your door step, to only be extinct in a few years after introduction; I feel seed companies really don't know how their hybrids will perform in a severe fungal disease year. They just don't have the many years of working experience with any given hybrid anymore. ***This year, in my opinion, if the hybrid looks "good" in the field, I would be spraying it with a fungicide.***

Do I need an insecticide added with the fungicide? I hear a lot of talk from farmers who "network" within different ag retailers and chemical suppliers that suggest adding an insecticide with the fungicide. The argument is that the insecticide is generally inexpensive so "why not add it". The only time I would do this if there are insects eating the silks to prevent kernel pollination. In my area, 99.99% of the time this is not the case and adding an insecticide as a prophylactic approach is NOT NEEDED AND COSTS YOU MONEY!

That's my 2 cents worth.....the choice and decision is always yours.

Lonne

