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## Tri State Seed Co. LLC Newsletter June 2018

### Observations

It is a fundamental necessity for each of you to have at least a cursory understanding of the pesticides you are using on your crops, and what they do. More importantly, what they won't do! The reason I bring this up is simple. We are constantly asked questions about the efficacy of chemical products we thought everyone already knew about. Here is an example. After walking through a field last week I had to shake the rust spores off of my pants before getting back into my pickup. The reason I had to get all "rusty" was the grower wanted to know when he should spray his field. I chalked this up to just lack of scouting fields. We got the fields sprayed and looking good again. Problem solved, but not without some damage. When we have a crop with this kind of potential coming, you really should scout early and often. The grower in question was north of here and told me that he put Tilt on with his herbicide and thought that would carry him till harvest. I don't know if he read the label or not, but the Tilt label says in black and white the active ingredients give you 5 days of residual protection, that's it, not a day more. What they are saying is this... the reinfection rate will be fast, and there is no residual protection. You must include a strobularin as a second active to truly protect your wheat from future infections. Then, the protection is usually limited to 40 to 45 days, tops. Why? Because a strobularin only protects the leaves it hits. New leaves emerging remain susceptible.

My point here is this... if you are trusting your chemical decisions to a pseudo-professional you better have a great deal of confidence in him, or educate yourself. If all he or she is doing is delivering chemicals to you, you should consider other options. What are the differentiating factors that separate the good field men from the poor ones? Great question! Value after the sale is the obvious answer. Did he talk to you about options? Did he price those options? Does he help you scout your fields? Does he show you trials focused on newer, more effective products and technologies? Did he try to find a generic product that would do the same thing? Most importantly did he talk to you about your return on investment? Has he presented you with research or a label to back up his recommendation? What is his experience with this product? Remember he doesn't have any skin in YOUR GAME. His recommendation often comes from his boss, who gets told to sell what they have in the warehouse. Think I am making this up? I have seen it happen way too often in our area. Bottom line is this—TSS sells crop protection products and you should give us a try. In many cases we can make you money.

### Herbicide Resistance 2.0

We are in the throes of a major epidemic of chemical resistance. This spring we have seen cheat grass resistant to Olympus, Glyphosate resistant Jointed Goat Grass, Prickly Lettuce and Maretail resistant to almost all group 2 herbicides. Did your field man recommend any of these "same old" products because they have worked in the past? I won't belabor the point but do your homework, educate yourself and find someone that understands resistance. Many times all it takes is changing a mode of action, or using two modes of action instead of one. Using only one mode of action increases the odds that favor resistance by 83%. Using more than one MOA, doesn't always mean more money either. Many times we can combine two modes of action for less than a full rate of the one you are using and do a much better job.

Don't put the sprayer away too quickly this year. If you used Bronate, Brox M, Maestro or some other form of Bromoxynil and MCPA, or Ally and its relatives, all group 2 herbicides on this crop, many of you are in for a big surprise after harvest this year. The Prickly Lettuce and Maretail are alive and well in most fields just waiting for you to harvest off the canopy so they won't have to compete for sunlight and moisture. You can see the juvenile plants right now if you just scout your fields. They look injured, but the regrowth proves their resistance to group 2 herbicides. After harvest, Paraquat won't touch them, neither will Glyphosate or 2,4-D. Look toward generic Widematch called Truslate or Witness in combination with 2,4-D and AMS or Enhanced Sulfate. Remember, it helps to burn the chems into these plants after harvest when weeds are all hardened off and getting ready to set seed. This combination will turn Prickly Lettuce and Maretail black; it is a slow kill, but very thorough. Don't wait until after your vacation, get on it. Want to

eliminate resistance? Kill them all the first time. Our customers, who took our advice this spring and used Widematch or Truslate in crop, will have no issues with post-harvest spraying. They are going to be on vacation after harvest.

### **Rust**

WSU will tell us to watch two things when checking for rust. Look at the incidence, and the severity. Incidence means how many plants out of 100 are infected. Severity means of those plants infected, what percentage of the flag leaf is compromised by the spores. If your hot spots are growing at all, and the severity on each leaf approaches 50% in those areas, go ahead and spray. Curiosity is a very popular variety this year and even though we applied a fungicide early, many fields have been sprayed twice.

### **Fertilizing this Year**

We have a new hydraulic soil probe that will take probes to 4 feet all in one shot. If you need a soil test give us a call. The fertilizer removal chart on my I Phone says that if you cut a crop in 2017 that was 60 bushels per acre, then the fertilizer removed was as follows:

Nitrogen—111 lbs. Phos—38.4 lbs. Potassium—89.4 lbs. Sulfur—14.4 lbs.

You can expect 20 to 30 lbs. of nitrogen to be released for every 1% Organic Matter in your soil. We generally have between 1.0% to .5% OM in our soils; so we should expect about 15 to 20 lbs. of Nitrogen to be released during the year. The remainder needs to be replaced, one way or the other. If you are taking ground out of CRP, you should expect even less residual fertilizer to be available. More importantly a much larger percentage of what you are adding this year, will be tied up in the residual OM you have from the prior 10 years of grass. This happened on our own farm not too long ago. The field we took out of CRP actually yielded 6 bushels less, even though we put on 30 lbs. extra N and some S. The tie up was significant, it completely fooled me. We should have increased the rate we put on by 50% at least to account for the additional tie up. It is hard to justify the investment at the time, but what you need to remember is fertilizer that is tied up releases the next crop, so you get it back. It's just hard to write the check.

If you really want to find out how much fertility you are using in a crop, why not try this! Take a soil test for all four feet just before you seed your crop, and then again immediately after harvesting the crop. Waalaah! You have just figured out how much fertilizer the crop used. Way too many of you apply 50#s of N each year no matter what. After all you don't get paid for protein in white wheat right? You might want to reconsider that thought. All you have to do is drive around the country and look at the color of the crops in the area to see the difference. What most of you think is just another variety because of the light green color, is actually nitrogen deficiency. Some cases are severe. Still don't believe us, try doing a petiole test just for kicks. The benchmark nutrient levels in the plant are well known. You may be shocked.

You cannot take for granted that "Mother Nature" will, just for the hell of it, make up the difference between what you applied and what the crop needs. If you got along for years with your 50#s applied, great! But what happens when you start raising 60 or 70 bushels per acre instead of the old traditional 35 ad 40 bu/ac? You begin to sacrifice yield, big time! Remember, roots follow moisture, not fertilizer. If you over apply one year just a little, say 25%, so what? The next crop will utilize it, the input is not lost. The more straw you put back into the ground also ties up more fertilizer, temporarily. This also releases to the following crop as the organic matter decomposes and releases Nitrogen back to the soil. This is why soil testing is so valuable. It gives you a snapshot of your fertilizer in a given period. Just like the bank statement you get every month. It tells you what is in "the bank" at a given time. By taking tests each year at the same time, you will be able to see graphically what your actual fertilizer removal is from one crop to the next.

Many more of you are streaming fertilizer. Why? Because the dang fertilizer bill in May of 2018 is huge when you consider the return on that investment doesn't happen until harvest 2019, or later. So, many of you are choosing to apply a lesser "base amount" early and when the crop makes it through the winter, stream jet more when you have a better idea of the crops yield potential. This is a good decision. It is good because of what we said in the paragraph above, positional nitrogen is just as important as how much you have available. It is good to have some N in the third and fourth foot. If it is not in position when the plant needs it, it might as well not be there. This also allows you to defer a portion of your fertility expense until later in the crop year.

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**Introducing Stacy Kniveton – General Manager of Tri State Seed Co.**

Stacy Kniveton has been hired as the general manager to manage the future growth and development of Tri State Seed Co. Stacy's family is firmly rooted in the Mesa area; he attended Connell High School and WSU. Stacy has experience in the potato industry having helped to manage several larger local production businesses and has also farmed potatoes himself for years in the Columbia Basin. He actually currently serves as the chairman of the Washington State Potato Commission. He has a thorough knowledge of both dryland and irrigated rotations. His experience most recently with the Wilbur Ellis Co will be a real asset for our company. As I slow my involvement with our company in the next two years, Stacy will be here to lead the business going forward. When you get an opportunity come in and meet Stacy if you don't already know him. He begins his career with TSS on July 1st.

**CoAXium Wheat and Aggressor Technology**

Last week Craig and I were invited to a private tour introducing the new CoAXium Wheat and Aggressor technology. We invited several growers to attend also. This is an important tool for our area, especially if you have cereal rye or downy brome grass. The technology is a production system, and you should remember the three fundamental tenants that anchor this system. If you do not – you will not be prohibited from using it.

1. The system begins with the use of elite varieties of certified seed containing AXigen, a patented non-GMO herbicide trait. This trait will be made available to both private and public breeding programs. CoAXium varieties will be available in all market classes to licensed distributors.
2. Aggressor, is the new herbicide brand that is tied to the patented trait and drives the control of winter annual grasses in the CoAXium Wheat Production System. Aggressor is a group one ACCase inhibiting herbicide providing unmatched solutions for the toughest weeds. Aggressor does not have activity on fescue weed species or weed species that are resistant to Group 1 (ACCase) herbicides.
3. The CoAXium system requires a stewardship agreement to be signed every year, both for the use of the seed, and the herbicide. These are separate registrations on separate websites. These stewardship guidelines are critical to the longevity of the technology.

The system is specifically designed to control Bromus species, feral rye, jointed goat grass, wild oats, and volunteer cereals. This system has a very short plant back restriction, like two weeks. Read and follow the directions on the label and observe all rotational guidelines.

**Irrigated Producers take note—Caliente Mustard Production System**

If you are contemplating a potato contract next year, and your rotation allows you time to prepare the ground for the potatoes, you should consider Caliente Mustard. Why? Because the entire Columbia Basin is suffering from elevated levels of Verticillium Wilt in our soils. How long do you think using 50 plus gallons of Vapam per acre is sustainable? Remember the old adage, "If you take care of your soil, the soil will take care of the crop?" Nothing could be more true when producing potatoes. Want to know why we don't recommend planting corn as a rotational crop? You guessed it. No potato contract here next year, right! After all, not only are the root balls a pain in your digger, but you have no opportunity to do any soil prep for vert suppression.

Just of giggles, check out the potato growers having the highest yields, lowest bruise and highest gravities from virtually any processor. You will find without a doubt, the rotations including Caliente Mustard preceding the crop are among the highest quality potatoes grown every year, on the shortest rotations also. The Caliente system has existed for 20 years and now more than ever we need it to combat our production issues. Don't think it's worth the money? I have a feeling the processors are about to help you out. Stay tuned.

**BioST Insecticide 100**

BioST is getting a lot of press recently. This combination wireworm medicine is worth a good look. It combines the Neonic attributes of Crusier and Resonate (Gaucho) with the Clothianidin active of the Nipsit insecticide. Having three modes of action working on wireworms is a big benefit.

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## RETURN SERVICE REQUESTED

Remember when we had the good stuff like Lindane? Lindane is a Chlorinated Hydrocarbon and was pulled from the market almost 13 years ago now. Well the half-life of Lindane is about 12 or 13 years so guess what is happening to the population of wireworms? Yes, they are on the increase. The real damage happens in the spring when they come to the surface and the soil temps are cooler. It can be difficult to find them in August because they are deeper in the profile. What should you do? Give this a try; remember what we said earlier about multiple modes of action?

### MESZ in Furrow

MESZ is Micro Essentials granular fertilizer with sulfur and zinc added. This in furrow dry product is becoming quite popular especially with our early planting guys. The nutrient value is expressed as a percentage – NPKS. This is 12-40-0-10 with 1% Zinc added. If you are looking for a way to get some Phos in the furrow this is the ticket. As you will remember, Phos is especially immobile in the soil so placement is critical. Having it right beside the seed is optimal. We can blend this product and others, with your seed just after the treatment process at rate up to 25 lbs. per acre with normal seeding rates. This is an “inline” process so it all happens when you are getting your seed treated. As the treated seed enters the mixing chamber (14 feet long) the fertilizer is added very uniformly to make a very homogenous blend that feeds through the drill with ease. Just remember to up the seeding rate accordingly to account for the increased volume. Call Craig for special micro-nutrient needs. When you are considering this... remember the 12-40-0-10 numbers are percentages. So if you put on 10 lbs. of MESZ you are getting 40% of 10 lbs. as your phos value or 4 lbs. of actual phosphorus per acre. You might as well put on 20 to 25 pounds of MESZ because 4 pounds is not going to help very much.

Thanks again for all your business!

Dana Herron

Craig Teel

Stacy Kniveton

Kevin Starring