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## Tri State Seed Co. LLC Newsletter July 2018

### Observations

Have you ever noticed how it seems some things never change, and then all of a sudden there is a whole bunch of change happening. This perception could also be rooted in my inability to process all of the information our culture shoves at us constantly. Just like you, I get accustomed to my routines, talking to the same people, going to the same places, attending the same meetings, etc. Well, change just hit me right in the face this week. Here are a few changes affecting Tri State Seed Co.

This week you will be able to come into the office and meet Stacy Kniveton, our new general manager in training. Stacy is part of the transition of leadership at TSS, he will be learning the ropes for the next few months. He knows many of you and is anxious to meet the rest of you. Stacy knows more about irrigated farming than the rest of us, so his tank is already half full. So please accept our invitation to come in and visit about how we can help you in the future.

We have been diligently negotiating a strategy with the Gavilon Company in Lind to distribute seed from their location this fall. This was an accommodation to them to offer the service and convenience of having high quality seed at their location. We were hoping we could reach an agreement but as of this writing we will not be involved in this activity this year. If you are in that southern Adams County service area we are still interested in serving you. If you want to contact us or have questions about products and services please call Kevin Starring at 509-650-7226 or email him at [kevin@tristatseed.com](mailto:kevin@tristatseed.com). We typically don't have seed pricing until closer to planting season, so we can hedge our position. I have included many of you in this area on our newsletter list; we hope you enjoy our service.

On the lighter side, please take the time to clean up your harvesting equipment. We know you all have good intentions, as do we, but some things just need a little reminder. Last year we found a nice set of kids shoes, several dead birds, a bird nest, an 8" Crescent wrench, several end wrenches, half a pack of Marlboro's, a five gallon bucket, no kidding, and a watch. The auger screens caught most of the big stuff, but when some of the items get to the cleaner, they tend to lodge in peculiar places and cause plugs in the system. By plugs, I mean huge piles of unusable seed on the ground. You get what I mean, take a little time and check things over. We are sure your local elevator company will appreciate the courtesy also. BTW the Bulova Accutron warranty does not include seed treatments or mixing chambers.

### MESZ Fertilizer

We are very high on this Unipel form of dry fertilizer. Unipel means that all of the nutrients are in each of the granules of fertilizer, as opposed to a blended product where the essential elements are spread out in the row randomly. MESZ stands for Micro Essentials with Sulfur and Zinc. The nutritional equivalents are (NPKS) 12-40-0-10 +1 Zn. It is designed to place Phosphorus in the seed row for maximum availability. For those of you unfamiliar with dry products remember these are percentages by weight. Here is an example. Let's say your soil test requires you to put on 8 lbs. of actual Phos (P<sub>2</sub>O<sub>5</sub>) per acre. So, you would need to apply 20 lbs. of total product, MESZ, to get 8 lbs. of Phosphorus. The Phos is the second number 12-40-0-10 +1 Zn. 20 lbs. per acre times 40% is 8 lbs. of actual Phosphorus per acre. As we have discussed before Phos is one of the nutrients that is most immobile in the soil. Placement close to the seed is critical for seedling uptake. Phosphorus is also responsible for the uptake of other less soluble nutrients. It is very much tied to increased winter hardiness. In that last example the 20 lb. rate for 8 lbs. of actual Phos would cost you right at \$6.50/acre. I can anticipate your next question, "Why don't we just put the Phos on the seed piece when we do the other treatments?" The answer is simple, we just can't get enough product on the seed to do enough good, more than a few days. It is an issue of dilution, as the plant begins to grow it just needs more than we can stack on the seed, hence the "in furrow

methodology.” Bottom line here is to check your Phos levels now, this is an easy way to replenish what you have been removing from the soil. Why the Zinc? Zinc is key for moisture absorption. It is important for flower formation, frost protection, germination and vigor, and assists plant growth hormones. Zinc does not move much in the soil; hence the in-row method makes sense. High levels of phosphorus can tie up your zinc, so having some in the right place makes it more available. If you are not adding Zinc, you are depleting your soil. Zinc, like phosphorus, doesn’t leach much so even at higher levels it will be there when your crop needs it. Keep your phosphorus to zinc ration at 10:1 in ppm and have at least 1.8 ppm available. Foliar applications work fine, but in furrow is so easy and usually less expensive. How many of you don’t know what your zinc levels are? Hmmm...

Craig is very accommodating about putting other fertility products on your seed as long as you give him some notice. One of the more popular is Quick Roots, it has proven efficacy on many crops. The other product we have had requests for recently is Bio ST. It is a biological treatment design to enhance the rhizosphere surrounding the seedling and help the beneficial microbes create an environment for a healthy plant. Remember raising a good crop is all about eliminating the stressors affecting the plant. We prefer to use our source for the fertilizer for one reason, they prescreen all their product for us. Why? It means hopefully no clumps of hard fertilizer in your drill cups plugging your openers thereby causing a skip in the field. We try really hard to do a good job, but every once in a while, some clump from a blender or holding bin finds its way past our screens. I know this because I get the photos on my I phone when the farmer finds the plug.

### **Micro Sync Pro (Three critical micro nutrients plus Zinc)**

If you have need for micro nutrients without the Phos, then consider Micro Sync Pro. It is a granular micronutrient fertilizer formulated using compaction of elements into a soluble granule and designed especially for in furrow application. This product is produced in Pasco WA by Verdesian, a company specializing in micro-nutrient uptake and availability. It has 5.0% Calcium, 9.5% Sulfur, 1.25% Boron, 5.0% Manganese, and 7.5% Zinc. This is unique technology in that it combines very finely divided particles compacted together producing homogeneous granules consistent in particle size and analysis. In the soil, these Nutripaction granules are activated by soil moisture creating millions of particles within the root zone for conversion and uptake. Here is the rough math: 10 lbs. of Micro Sync provide enough micros for a wheat crop with mild deficiencies for about \$7.00/acre. So... I can see the wheels turning in your head! You don’t think you need the micros right! Well, why don’t you find out??? All it takes is a soil test. Remember how to do that? Just a one-footer is good. Ask the lab for the micro nutrient test, and also ask for the comparison to what is needed for a normal yielding winter wheat crop in your area. You have to give them a target otherwise the numbers are just that, meaningless numbers. Use a creditable lab that does a lot of micro analyses. You just can’t fertilize the same way every year and expect a different result... there is a name for that... it is not complementary. Yes, Mother Nature can adjust to some degree, but certainly not as much as you are taking out of the soil with 60 and 70 bu wheat crops.

### **Variety Selection this Fall**

This is easier than it seems. Remember the best way to solve problems with your next crop is to use genetics to your advantage. What do I mean? Simple—you all have seen the damage from *Pseudocossopora* foot rot this year. See the photo. Yes, those draws that are all down with matted wheat are caused by PCH—*Pseudocossopora herpotrichoides* or sharp eye spot disease as we know it. It is preventable by using a wheat variety known to have resistance to the disease. There are four new generation varieties that come to mind, Otto, Puma, Jasper and Resilience that carry the pch resistance gene, either pch1 or pch2, or both. Older varieties include Coda, Madsen and Hyak. It is interesting to note that the resistance I speak of is not absolute. There are varying degrees of resistance. Just because the variety has one or more of the pch genes, does not mean that under severe pressure, the disease won’t have some effect on your crop. The other solution is to apply Topsin to the crop at herbicide timing to prevent the disease. Our point here is to use the genetics inherent in the variety to your production advantage. Check the rust package on your favorite bin buster before you plant. If you are unsure how to check the information published by the university, come in and visit with us, we can decipher the

codes for you.

There are differences in straw decomposition also. Puma and Madsen are renowned for having a higher carbon to nitrogen ratios than other varieties making it persist in the soil longer before the degradation process begins. Understanding these little nuances will save you big money down the road. If you have relied



on a minimum disturbance tillage system in the past... you may want to re-evaluate that especially if you have 75-bushel Puma straw that is 25 inches long and you expect to seed our next crop with 16" drills. Give this some thought. One simple trick we learned is this, when and if you apply your first Glyphosate, add some additional Ammonium Sulfate. The fertilizer is cheap, helps buffer the pH of your water, and really accelerates the process of straw degradation. If you saw a lot of Physiological Leaf Spot on your favorite variety, pick a variety with less sensitivity. If you had C-Stripe or Wheat Streak Mosaic Virus, you can pick a variety with tolerance. Oregon State does a great job of screening this in Hermiston. One item we discuss on a regular basis in the office is just because you had a monster yield with a variety this year with 12" of rainfall, doesn't mean you will have a similar experience when the rainfall returns to 7" or 8" per year. Plant more than one variety, use averages to mitigate your risk. What we mean by averages is the average performance of the variety over many site years, wet ones, dry ones etc., you get the idea. If you want another opinion call us. Between Stacy, Dana, Craig and Kevin we have over 140 years of collective farming experience, use us to your advantage. Enough said!

### **Alfalfa This Fall**

The production conditions we have in the Columbia Basin allow us to plant fall dormancy 4, 5, and 6 alfalfas. It wasn't until I visited the alfalfa research facilities at several breeding companies that I realized the diversity of the genetics between alfalfa varieties. If you have tight soils, with poor drainage we have a branch rooted alfalfa that will persist well and yield well. If, on the other hand you prefer a system where you graze cattle on your field occasionally, you may want to consider a variety with a very low crown set to offset the damage caused by the portable mowers. Our point here is obvious, consider your field conditions and your long-term objectives before you select a variety. If you want to leave the stand in for 7 years, we have a variety that definitely leads the pack on persistence over time. Some varieties fade fast after two years, but for those two year they give you back a lot. Other considerations are as follows: regrowth, some of these newer ones can really rip, other have a delayed



regrowth characteristic to facilitate a wider harvest window. Quality, lower lignin content alfalfa can stretch your cutting schedule and still give you good quality and improved solubility in the rumen without sacrificing yield. Other factors include disease resistance, winter hardiness, root architecture, branched or tap or a combination, soil pH, and salt conditions. Is your water neutral pH? If you farm in the basin, it isn't. High sodium water makes a difference on variety selection. Stem size and color also factor in the ultimate decision. Want to plant what the neighbor did, fine. Want to find the least expensive variety, that's fine also. If you want to have a meaningful discussion on which variety best accommodates your physical field conditions, your rotational plan, and your market expectations, call us. There is value in experience.

### **Irrigated Wheat Protein Requirements**

Each year at this time we get calls about irrigated red wheat both DNS and HRW not making protein. Several times a year we discuss this issue in the newsletter but still we have issues. Protein is a function of two factors, genetics and the environment. Comparing the protein fixation ability of an irrigated wheat variety is easily accessed by looking at trial data from the appropriate breeding entity. Most of these are tested in uniform trials so everything has the same background amount of fertility applied. Those on the lower end of the scale are usually not released, and most certainly are not carried by TSS. Here is what usually happens in the field. The field man recommends his recipe for fertility based on what he has always done, without doing enough homework. Red wheat requires at least 2.8 lbs. of N for each bushel of yield. The N to S ratio should be no less than 4 to 1. That means a crop yielding 150 bu./ac. will need access to 420 #'s of N and 105 #'s of Sulfur. Notice I said access to, not applied. What you have left in the soil prior to planting counts toward the total. Since wheat always produces bushels before fixing protein, when the genetics and the environment are conducive to yield, you will get more yield. Having said all this, what usually happens is there is more wheat in the field than expected, and the crop is therefore deficient in fertility and protein suffers. You also must have fertility in position when the plant is requiring it. By in position I mean in the third and fourth foot at heading. Didn't know winter wheat roots went that deep? Yes they will go up to eight feet deep chasing moisture. Putting N and S on your crop late in the season is problematic because the roots need it where they are now, not where they were. If you want to continue this discussions call us. Doing what you always do and expecting a different result is... well you know...!

### **How Much Fertilizer Does My SWW Wheat Need?**

Dryland farmers ask us this question routinely. Arron Carter the winter wheat breeder answered this question for us just the other day. He said if your soft white wheat has 10.5% protein, you are nailing it perfectly. If your protein is higher, especially if it is significantly higher you are using a bit much. Less than 10.5% and you are giving up yield. Yes, you are giving up yield! Since most dryland guys are farming the same ground every year, it is no big deal; the Nitrogen will be there for the next crop. The only issue is you may have to account for some extra fertilizer on the following year's budget. How do you predict the perfect amount? You can't get it perfect, but you can come really close. We suggest putting on a base amount early and using stream jetting in the spring to make up the difference. If your soil test in the spring shows you have enough for your expected yield, good enough. If the Good Lord has blessed us with more rain than we expected, use the more-on method, put some more on! You have two extra chances to adjust, herbicide time, or stream jetting early. In either case you are pushing that fertility bill forward in the year and that is good for cash flow.

### **Electronic Newsletter Option**

If you would like to receive timely updates occasionally in between the newsletters, please send your email address to us, [office@tristateseed.com](mailto:office@tristateseed.com) or [office@tristateed.com](mailto:office@tristateed.com) or just text it to me on my cell phone 509-546-1300. We are developing a list of growers that would appreciate this update service. Each newsletter costs us about \$1000 to mail. We are interested in using our money wisely just like you and using this update service will cut down on newsletters and keep our information more timely and targeted to your specific interests.

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**Integrated Pest Management of Prickly Lettuce**

Those of you with a computer, check out the Extension Publication PNW688. I will recap parts of this research article for you here. Synthetic auxin herbicides like 2,4-D have worked well for control of Prickly Lettuce in wheat rotations in the past, but they have become resistant to 2,4-D, Dicamba (Banvel and Clarity), and MCPA. The resistant biotypes can be 15 times more resistant to the above herbicides. Initially the resistant plants look similar to the susceptible plants for the first ten days, but then they will put up new shoots right out of the crown, as many as 15 new shoots. No big deal? Yes, big deal! Each one of these will produce seed, 225 times as much seed, and now you are going to find out just how deep your check book is.

Clopyralid, one of the active ingredients in Widematch, Curtail and Curtail M, is a synthetic auxin that continues to provide excellent control of prickly lettuce. Many synthetic auxins can cause crop damage if applied at the wrong time, so read the label, then read it again.

Huskie herbicide contains pyrasulfotole (Group 4 HPPD inhibitors) and bromoxynil (Group 6, photosystem II inhibitors,) and it provides excellent control of prickly lettuce. Good coverage and adequate volume are important. If the plant is fairly mature use the high rate and something to help get it into the plant like enhanced sulfate or AMS. Correct nozzles are critical. The optimal timing for control of prickly lettuce is the rosette stage of growth. Plants become very difficult to control after stem elongation. We are recommending Truslate, (generic Widematch), for use in a post-harvest application to control prickly lettuce. Truslate, in combination with 2,4-D and a high rate of Enhanced sulfate and NIS will do the job. I personally like L I 700 surfactant from Loveland, it has a penetrant. We had great success after harvest last year in the Horse Heaven. Use the 1.33-pint rate. The plants die slowly, but permanently, so be patient, it takes a while for them to turn black, but black they will be.

By the way, Stacy has 20 years of irrigated farming experience and just finished working for Wilbur Ellis so he knows crop protection products and their application. I learn something from him every day. I am pretty competent on the dryland herbicides, he is even better on the irrigated side. Give him a call.

***Have a great harvest and be safe.***

**Stacy Kniveton- 430-5640    Craig Teel-528-4851    Kevin Starring- 650-7226    Dana Herron-546-1300**

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