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Tri State Seed Co. Fall Newsletter

Thinking Long Term

This fall has certainly been filled with anticipation and uncertainty when it comes to our rainfall. Sporadic, localized, and non-existent are all appropriate adjectives depending on your locale. Some areas were blessed and others were forgotten in this latest event two weeks ago. It is interesting to watch how people deal with the stress of uncertainty. I have a neighbor that greases his drills just before seeding every year in preparation for the ritual of making deep straight furrows. The last I counted he had greased the same set of four drills three times trying to create some clouds. I have another that likes to make the first round on a few fields just to see if the seed remembers what to do. The analytical types just research the internet and ask countless questions about seed count, variety, seed treatments and the latest university research on growth hormones. My brother just buys tools. I think he has every impact gun Snap On has ever made.

All kidding aside... we have some very tough decisions to make this fall. Whether you have some wheat up or not, we all have to decide whether this crop is going to be a crop...or just an exercise to collect some crop insurance. There is NO moisture in the soil below what we just received. I have seen the soil test reports that show 1.2 to 2.5 inches of available moisture in a 6 foot profile over a wide area of the Inland Empire. So when you are making your preparations for this next crop remember this: According to the WSU Agronomy jocks, the average wheat plant needs 4" of available moisture to get the plant out of the ground, live through the winter and to the tillering stage next spring. For every inch of "soil moisture" above this you should expect between 6 and 7 bushels of grain depending on your soil type. So for a 40 bushel per acre crop on our farm we need to receive 6" of water between now and May 1st, 2016. The last time that happened in Connell was 1984. Don't call me a fatalist. I am just being realistic about this crop. Minimize inputs, with the understanding that you can overdo this also. You have to plant enough seed, have enough fertilizer and do your weed control on time. Investigate the proper crop insurance option for your farm and be darned sure you thoroughly understand all the nuances of the program. RCIS has replant provisions that others do not! Our ultimate job as the operator of a wheat farm is not to raise as much **wheat** as we can on every acre; it is to maximize the **revenue** on each acre as best we can. This year that may not come from selling a wheat crop.

Please don't take this commentary as a sour note – if we are fortunate enough to get 8 inches of rain you can still split apply fertilizer next spring, and still create a marketing plan to merchandise more bushels, so don't take yourself out of the game, stay flexible. On that note, those of you that did get a good dose of rain last month, think about spraying your stubble this **FALL**. There is a very good stand of volunteer wheat coming in some fields this fall. The combination of rain and some very small kernels that left the machine at harvest time have created a pastoral scene. As precious as our moisture has become; don't pass on this opportunity to make some money. Yes, I said make some money. By spending a little money this fall you have prevented that volunteer wheat and cheat grass from burning through at least 1" and possibly 2" of moisture that you could be saving for the crop of 2017. If 1" of water is worth 6 or 7 bushels of wheat; then you just made a great investment. Glyphosate is less expensive than it has been for years – think about it, for \$10/acre now, you preserve the opportunity to make \$40/acre next crop. Don't let your banker tell you otherwise, remember he works for you.

If you do not have a volunteer wheat issue this fall, then make sure to grab the opportunity early next spring. We have had a continuing issue with holding off broadleaf weeds in chem fallow. If you have adopted this strategy and need longer residual try adding 2 to 3 ounces of Sharpen per acre with your Glyphosate. It may be a little expensive but the control is fantastic. Sharpen is a group 14 herbicide with great residual and controls only broadleaves. It is a photo-synthesis inhibitor.

Dryland Forage?

So what if we had a situation with limited water, and we were expected to produce a crop with the expectation of reduced yield, in an environment with lower than normal commodity prices? Sound familiar? Why can't we produce a forage crop on dryland in the Inland Empire? Triticale, Forage Oats, Beardless Forage Barley should all be considered as options. Since you are cutting the crop at an immature stage of development you might get by in a limited moisture situation just fine. Harvesting of these crops can be done on a custom basis so you don't have to buy new paint. 2.5 tons of forage sold at \$120/ton produces revenue of \$300.00/acre. That is the same revenue as 40 bushel per acre wheat at \$7.50 per bushel.....just think about it. Freight becomes a consideration, so does maintaining residue on fragile ground. In the right situation forages are worth consideration.

New Wheat Varieties Coming Soon

USDA-ARS breeder Kimberlee Campbell recently received full release status of **ARS 1336-C**. She has positioned the variety as a Bruehl replacement. Bruehl has been a mainstay in our club wheat lineup for many years but has several flaws that need immediate attention. **1366C** will have better grain yields, better test weight, equal to or better snow mold resistance, better club wheat quality, better tolerance to eye spot, earlier maturity, similar emergence, similar winter survival, excellent stripe rust resistance and similar Cephalosporium stripe tolerance. For those of you not familiar with the kernel morphology issue, Bruehl has trouble grading club all of the time. Usually our export traders have to put up to 30% club wheat in a cargo of Western White wheat to make sure the cargo will grade 20% club. This is especially true if the origin of the club is largely Bruehl. Other varieties are much better in this regard. The pre-disposition of Bruehl to late maturing alpha-amylase susceptibility is still an issue with 1366C but has yet to be quantified.

WA8180 Hard Red Winter

WA8180 will be a logical replacement for Farnum HRW in the <12" rainfall area. It has a coleoptile length just a little bit shorter than Moro, which you will remember is the emergence champ. Moro's coleoptile is 108 mm's long and WA8180 is 97 mm's. It is a standard height cultivar with no semi-dwarfing genes present. In the <12" rainfall area it will out yield Farnum. Stripe rust reaction is superior to Farnum, as are test weight and winter hardiness. In the presence of additional rainfall it will get tall. Farnum has had issues with post-harvest heat dormancy some years and the reaction of WA8180 to the event is currently unknown. Bill Schillinger (Lind Dryland Station) has conducted lab tests for emergence of varieties under differing water percentages for several years. He has combined a unique set of physical mechanical techniques to measure the speed and percentage of emergence in varying soil moisture conditions. His research currently rates WA8180 as better than Moro when soil moisture conditions are at the bare minimum levels to initiate germination. It bested Moro in both speed of emergence and percentage emerged by a significant margin.

WA8187 A 2-Gene Clearfield SWW

This SWW is positioned to take the place of ORCF 102. It was developed by crossing Madsen with an Australian hard red spring donor line for the establishment of the 2-gene Clearfield trait using a combination of marker assisted selection and forward breeding techniques. In the 37 site years of yield data I reviewed, WA8187 will out yield WB 1070 CL by 8 bushels/acre and AP700 CL by 6 bushels per acre and is equal to ORCF 102 in the >20" rainfall zone. It is shorter than ORCF 102, carries the pch-1 foot rot gene related to the Madsen parent and has the same fundamental disease reaction as Madsen except that the stripe rust durability is even better than Madsen. WA8178 is one day later than Madsen but the milling and baking quality of WA8178 is significantly better than ORCF102. The fact that it is designed to replace much lower quality wheat in the market place and has the benefit of 2-gene technology is a substantial reason for its release to the industry. Currently WSU has no entry to compete in the >20" rainfall area. This variety is a big deal because it combines some great agronomic characteristics with really good end use quality. As soon as the balance of the requirements for release is satisfied by the breeding team, I am sure the release committee will approve the release for public consumption. Anticipated date of release, (my estimate) fall of 2017.

KXB-01 SWW

This is an interesting line; it is basically a 2-gene Xerpha. It fits very well in the 12 to 16" rainfall regions of the state and has some great agronomic traits to accompany the Clearfield technology. The testing protocols for complete release have not been completed on this variety but preliminary evaluations are weak concerning the milling quality. Flour extraction is lower than it should be, but the overall baking quality should be acceptable. With the critical nature of our export markets depending so heavily on grain quality, it is difficult for me to see this variety going forward very far. Now, if the balances of the milling tests show a reversal in trend – I will gladly eat my words. We will know more in a few months.

Credit Policy Going Forward

Tri State Seed's standard credit terms are 'payable 30 days after delivery'. Starting in fall 2015, TSS will be closing out completed sales orders and mailing billings each week rather than waiting until month end. We will now also be applying our standard 1.5% monthly interest terms to all past due invoices. Any variance to these terms must be agreed to in writing in advance of seed delivery.

Bulk Seed Returns

TSS will no longer be taking back returns of bulk seed. We would be happy to put your extra seed into totes for you to store in your shop. We will also be happy to take back seed as cover crop at a much reduced price. Think about this from our position for a minute, nobody wants to get seed someone else dug out of his drills. As we begin to use varieties that have royalties, the accounting that accompanies returned seed becomes nightmarish.

Irrigated Hard Red Winter Wheats

One of the things we do at TSS is trial different irrigated varieties from around the world to evaluate their adaptability to our agronomics and quality standards. As you might well imagine the varieties that show promise are few and far between. One of the issues confounding our search is that other regions of the world have other breeding priorities. This may sound unbelievably naive but not all countries have the same quality standards that we in the PNW do. The primary reason is our respective customers make different products out of our wheat and their breeders develop their varieties to perform according to the desires of their millers and bakers. For instance, one of the top milling wheats in the UK is Mulika, a DNS with high yield and a phenomenal disease reaction. It doesn't even make the bottom of the page on our quality charts. The Brits think it is the real deal – but the milling and baking requirements are so high in the US; we can't use it for grain production. Instead, we license it as SAS W-4 and sell it as a forage product; it is awnless and produces some killer tonnage with great forage quality.

Every now and then we come upon a winner. **Esperia HRW** is one of those, and currently is planted on over 30,000 irrigated acres in the PNW. It is from Italy and was developed by a company known for its Durum wheat. Esperia has very high gluten strength and is highly sought after by several domestic mills in the west. Another super star is Rebaldi HRW.

Rebaldi HRW

We tested this variety for the first time this year using an unbiased third party testing entity for the plot evaluation. Developed by Carlo Invernizzi in Italy, the replicated trials showed a yield of 153 bushels per acre, (generally not so stellar but this year a home run). The bright spot was the milling and baking scores were off the charts. The Rebaldi has very high gluten strength and the peak mixing time and the stability of the dough is very good. We contracted with the Wheat Marketing Center in Portland Oregon for the quality analysis and will test it once again in 2016. We are currently increasing the seed and expect to have enough seed for release to the public next fall. Rebaldi is a true semi-dwarf with bronze chaff and awns. It has great test weight, fixes protein very well and is generally free of our standard leaf and stem diseases. It responds well to slightly higher planting rates and is earlier in maturity, a critical issue for those wishing to double crop.

Mandala HRW

Mandala is another one of the surprises we had this year in our research trials. Mandala is from Slovakia and is another Hard Red Winter irrigated wheat we are watching closely. Once again the milling and baking scores were stellar. Very high flour extraction, water absorption and gluten strength. Mandala seemed to be very susceptible to



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Cereal Leaf Beetle, but we can fix that with a little pyrethroid medicine. It is more of a standard maturity winter type with a good disease reaction and harvest yield. Test weight was 64 lbs/bushel and the DHV was 98%. Mandala also seems to fix nitrogen very well. Planted in the same plot as Esperia which tested 11.9% protein Mandala was 14.4%. We are increasing 1000 kgs foundation seed this fall in anticipation of full bore production in the fall of 2017.

Identity Preservation Solutions

As we have grown we seem to find projects that require more storage for the purpose of keeping things separate – a good thing if you are a seed plant!!

We have found at least a temporary solution to our problems by using a grain tubing machine made by the Brandt Company in Canada. Similar to the silage bags used in the forage business Craig has been able to store over a 100,000 bushels of grain for future processing on the ground in the plastic tubes. It costs us about \$0.07/bushel to store the wheat and is fast to fill and even faster to unload. Each tube holds about 15,000 bushels and would fit well in the corner of your field.

So, the reason I am touting this marvel of mankind is simple – those of you that are looking for a way to identity preserve specialty crops like organic wheat, malt barley, any grain or seed product, organic or otherwise this works great. It doesn't have to be a seed crop, just store your commercial wheat until you want to market it and the freight rates are cheaper. You can pick it up anytime you need to, all winter long. All it takes is a 100 horse power tractor with a PTO and you are in business. Stop by and take a look, we still have several tubes on the ground. Oh – by the way, TSS is the dealer, we will be happy to sell you one.

Thanks for your continued support of our business, without you our business would not be celebrating our 11th year. Have a great fall!

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