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## Tristate Seed Co Harvest Notes – 2015

We thought it wise to catch you up on the progress of harvest and possibly plant a few seeds for future thought along the way, pun intended. The Connell and surrounding area is a bit short on yield but long on protein. Several reports locally are in the 11 to 15 bushel area with proteins running in the 16% to 17.5% area in the red wheats. The Ritzville area is doing considerably better reporting 25 to 30 bushel yields. The primary concern this year is the higher protein white wheat and what the market is going to do with it. I will have more on that thought later on. This newsletter is meant to be a catch up so will focus on the next couple of months in both irrigated and dryland environments. Pick out which topics you have interest in and blow by the rest.

### Protein in SWW – Future Decisions

During the last few months I have been involved in several trade teams from Japan. The first two were the big millers taking stock of the new crop and looking at issues of origination. One of the millers was my friend from Nishin Flour Milling Inc., Koji Murakami. His milling company mills 505,000 bushels of wheat each day, 300 days each year. He is obviously interested in the quality of our crop. The fact that the average protein in the soft white crop will be higher than normal was a concern. What they really want is soft wheat with a protein of 10.5% or less. If I had soft white wheat with protein much higher than 11.5% I would be looking for a place to sell it now while you still can. With our lower yields and in many cases abundant fertilizer remaining in the soil profile, you should consider switching to HRW or DNS quickly. If Mother Nature continues dealing us a hand like we have experienced recently should you not take advantage of the stressful environment and at the very least get paid for your efforts? Severe discounts could be a very real possibility for those with higher protein SWW going forward. On the other hand, lower protein SWW will probably be offered a considerable premium. At the end of the day – we are all risk managers so think about how to manage your risk and capitalize on the weather.

### We Have Gramoxone

Even though the wheat is puny this year, apparently no one told the weeds. If you need Gramoxone for post-harvest burn down let us know, we have very competitive pricing. Our most cost effective rates using the 3 lb. product last year was 2 pints of Gramoxone with 1 quart/hundred gallons of total solution of MSO. The max label on this product is 2.7 pints but if you can use 15 gallon nozzles the lower rate is killer. Please use caution with this product – it is one of the few we use that has the skull and cross bones on it. Do not get it in your eyes. Wear your PPE.

### Release SC from Valent

I was eating lunch today with a friend and one of our customers called me from Ione, Oregon. He said that the Kelse spring wheat he planted with the growth regulator Release SC was 4 bushels better than the portion of the same field without it. I just love these unsolicited testimonials. Release SC is a 4% Gibberelic Acid Solution that is put on the seed at treating time. It is a grow stimulator in the true sense of the word because it is naturally occurring in the plant and all we are doing is putting additional growth hormones into the plant so the coleoptile elongates more rapidly. This is important especially at emergence of the seedling – it all happens faster! For a grand total of \$0.50 per acre it is a great investment. That is good for a dryland guy that wants his crop up fast so he can stop worrying if it will make it up at all. It is certainly better than Prozac, and you don't need a prescription for the Release, just call us.

## Seed Quality and Seed Count

As you can well imagine the size of the seed we grew on dryland this year is relatively small, uniform but small. We are running pre-season germinations on all of our lots this year for any sign of stress related degradation. We don't expect any damage at all. We have been through this before. In fact, there are several studies showing the vigor of a seed lot with a seed count of 16,000 seeds/pound is the same as a seed lot with a seed lot of 10,000 seeds/pound. Coleoptile length is unrelated to seed size. It is a function of genetics. The take away message here is to make sure to evaluate seed size when you make your seeding decision. Seeding 40#'s per acre of a variety with a 16,000 seed count is **NOT** the same as seeding 40's of a lot with only 10,000 seeds per pound. So the solution is easy, count the seeds in one pound! How can you do that in less than a week? Here is how – there are 454 grams in a pound, so 1/10<sup>th</sup> of a pound is 45.4 grams. Weigh out 45.4 grams of seed and count it, then multiply the total by 10. That will give you how many seeds per pound you have in the specific lot you are seeding. Refer to the handy dandy chart below to determine how many seeds per square foot you need. For example 40 lbs. per acre of wheat using 16" drills, is the equivalent of 10 seeds/square foot. So don't set your drills for 40 lbs. of seed, set you drills to plant 10 seeds per square foot. No matter what the size of the seed, your rate will always be correct. This is very important this year. If you leave your drills set up to seed 40 lbs./ac using seed from last year that was 10,000 seed count, you may be planting up to 60% too much if your seed count this year is 16,000. Too many plants per square foot would be disastrous in a year with limited moisture.

### WASHINGTON STATE CROP IMPROVEMENT ASSOCIATION

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#### BARLEY AND WHEAT PLANTING RATES

##### SEED SPACING IN ROW

Row Width	1/2" Apart (24 Seeds/Ft.)			5/8" Apart (19 Seeds/Ft.)			3/4" Apart (16 Seeds/Ft.)			7/8" Apart (14 Seeds/Ft.)			1" Apart (12 Seeds/Ft.)		
	Seeds/Sq.Ft. for Barley and Wheat	Lbs./A for Barley	Lbs./A for Wheat	Seeds/Sq.Ft. for Barley and Wheat	Lbs./A for Barley	Lbs./A for Wheat	Seeds/Sq.Ft. for Barley and Wheat	Lbs./A for Barley	Lbs./A for Wheat	Seeds/Sq.Ft. for Barley and Wheat	Lbs./A for Barley	Lbs./A for Wheat	Seeds/Sq.Ft. for Barley and Wheat	Lbs./A for Barley	Lbs./A for Wheat
6"	48	154	184	38	123	148	32	102	123	27	88	105	24	77	92
7"	41	132	158	33	105	126	27	88	105	24	75	90	21	66	79
8"	36	115	138	29	92	111	24	77	92	21	66	79	18	58	69
10"	29	92	111	23	74	89	19	61	74	16	53	63	14	46	55
12"	24	77	92	19	61	74	16	51	61	14	44	53	12	38	46
14"	21	66	79	16	53	63	14	44	53	12	38	45	10	33	40
16"	18	58	69	14	46	55	12	38	46	10	33	40	9	29	35
18"	16	51	61	13	41	49	11	34	41	9	29	35	8	26	31
Row Width	1-1/8" Apart (11 Seeds/Ft.)			1-1/4" Apart (10 Seeds/Ft.)			1-3/8" Apart (9 Seeds/Ft.)			1-1/2" Apart (8 Seeds/Ft.)			1-5/8" Apart (7 Seeds/Ft.)		
	Seeds/Sq.Ft. for Barley and Wheat	Lbs./A for Barley	Lbs./A for Wheat	Seeds/Sq.Ft. for Barley and Wheat	Lbs./A for Barley	Lbs./A for Wheat	Seeds/Sq.Ft. for Barley and Wheat	Lbs./A for Barley	Lbs./A for Wheat	Seeds/Sq.Ft. for Barley and Wheat	Lbs./A for Barley	Lbs./A for Wheat	Seeds/Sq.Ft. for Barley and Wheat	Lbs./A for Barley	Lbs./A for Wheat
6"	21	68	82	19	61	74	17	56	67	16	51	61	15	47	57
7"	18	59	70	16	53	63	15	48	57	14	44	53	13	41	49
8"	16	51	61	14	46	55	13	42	50	12	38	46	11	35	43
10"	13	41	49	12	37	44	10	34	40	10	31	37	9	28	34
12"	11	34	41	10	31	37	9	28	34	8	26	31	7	24	28
14"	9	29	35	8	26	32	7	24	29	7	22	26	6	20	24
16"	8	26	31	7	23	28	7	21	25	6	19	23	6	18	21
18"	7	23	27	6	20	25	6	19	22	5	17	20	5	16	19

Based upon 13,608 barley seeds/pound and 11,340 wheat seeds/pound. Allow for rate adjustment for seed of other sizes.

## Notes on the Early Dryland Trials

I have just a few observations regarding the trials conducted by WSU in the less than 12" rainfall zone. The trials we have seen so far this year with the most validity, that meaning statistically sound data, are Lind and Dusty. In both cases the Eltan derivatives did very well. Those include Mela CL+, Curiosity CL+, Masami, Otto and Xerpha. The Mela and the Curiosity just keep changing places switching between which one is on top. All are statistically very close in yield. Jasper is a sibling of a Xerpha cross and was tested a WA8169. It is going to be one to watch closely. Jasper is basically Xerpha with better yield, better rust resistance and has the pch1 eye spot (Pseudocosperilla foot rot) gene. It will have very wide adaptation. It also will not have that anorexic look coming out of winter like Xerpha does. Foundation seed is available this fall, so in the fall of 2016 you should be able to purchase seed for your farm.

The other item of note was this – Ryan Higginbotham, the new Variety Testing Program manager, did a test with Gaucho insecticide. He used a 2 ounce rate compared to none and showed between a 2 bu/ac and 8 bu/ac yield bump. At Dusty the difference was 8 bushels per acre. At Lind the difference was 2 bushels per acre. These chemistries are off patent now which makes them less expensive, so you really should consider this when you plant. The associated yield bump doesn't seem to have a high correlation to the number of Wireworms present but does have a positive plant growth response effect.....

Wireworms are most active when the soils are cool in the spring and the late fall. If we end up seeding later in the season this year, again, it would be a wise thing to consider.

### **Irrigated News and Observations**

The whole issue this fall with finding alfalfa seed lots without the presence of the Round Up Ready trait is becoming heated. Most companies are completely out of the so called “non-detect” seed stock. The interesting thing to observe is the lack of any organized effort on behalf of the industry to mitigate the problem. Other commodities have been able to negotiate either a tolerance or a LLP, low level presence, with end users to help alleviate the inevitable slippage that occurs as the commodity is harvested and packaged and shipped.

We are still in good shape for Non-Detect alfalfa. After testing all of our lots, we had to purchase product that is PCR tested multiple times to make sure it is clean. Just a hint here, if you are buying seed this fall please do yourself a favor and make sure that the seed you are purchasing has been PCR tested. A PCR test is much more accurate than a strip test because it is done at the molecular level. Until the industry convinces our export customers to adopt a modest tolerance for the GMO trait– you better hedge on the safe side and just purchase non-detect.

### **Caliente 199 Mustard and Nemat Arugula**

Dale Gies from High Performance Seeds in Moses Lake has developed a proven system for both disease and nematode suppression prior to vegetable crops and potatoes. This blend of Italian high glucosinolates mustard in combination with an Alba type for high vegetative matter production is poised to revolutionize the way vegetable crops and potatoes are grown in the western hemisphere. Anywhere there is disease pressure from Verticillium Wilt, Sclerotinia, Fusarium, or Silver Scurf you need to be looking at this sustainable approach to disease and nematode control. Do you remember driving around the Columbia Basin last fall and seeing all of the beautiful yellow flowers? Not canola, yes Mustard! Finally, a bio-fumigation system that really works. This will lessen your dependence on hard to get fumigants. There is a lot to be told about this system and not enough space to do that well so please call us for the details. I am the ultimate skeptic – until Dale proved this system to me. I have seen the field where he has taken 8 potato crops off in the last 16 years! Think I'm lying? Get in my pickup and I will show you the field.

### **Hairy Vetch**

This fall seeded legume is rapidly becoming a must have for all organic producers and others wanting to break a rotational disease cycle and fix up to 100 lbs of Nitrogen at the same time. Typically planted in August the forage can either be taken as very high quality hay the following spring or grazed or plowed back into the soil as an amazing green manure crop. Brad Bailie, organic farmer in Connell, told me this week his plow down netted him over 200 units of Nitrogen. The cool part of this is what it does for soil structure and water penetration. Another prominent organic producer in the Royal Slope area consistently sells his hairy vetch on the stump for \$100/ ton and usually gets 2.5 tons/acre plus the benefit of the free nitrogen. NRCS has got to love this stuff, because it covers the ground all winter and does great things to the soil. Typically seeded at 22 lbs/acre and priced at about \$1.50 / lb it is a valuable consideration even for the conventional farmer. Last year we ran out – please call early.



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Thanks for your continued support of our business. Let us know how we can improve our service to you! Have a safe harvest –

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