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## Fall Newsletter 2014

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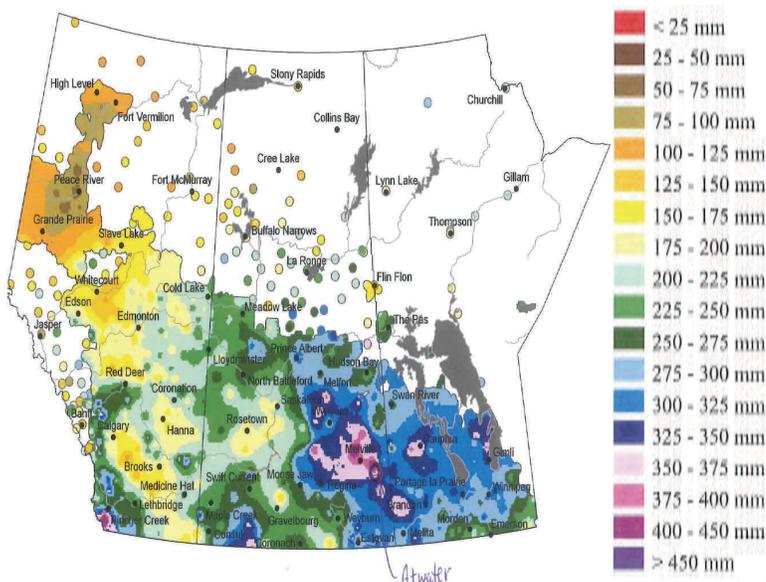
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### Crop Tour 2014

This year Gavin was able to make a whirlwind tour of all our alfalfa seed production fields. He reports: Wow - 5 days, 25 growers, over 50 alfalfa fields, and 2600 km. I got to see parts of Saskatchewan that I had never been to before. It was great to see everyone and get to know a bit about you and your farm operation. Overall the alfalfa seed crop is below average. Not surprising, considering the late spring and wet weather most of us had to endure. It takes a high level of management to produce alfalfa seed and it is interesting to see how each farm runs. There are a 1000 variables to produce a good crop of wheat or canola. When you add in leafcutter bees, I think that number doubles to 2000. Temperature, humidity, and moisture are out of your control, but you can help the crop through these stresses by controlling the variables you can control, like weeds, plant disease and bugs.

How did the weeds, plant disease and bugs challenge us this year? Excessive moisture has been the biggest issue, which causes the alfalfa to drop seed set, and promotes high levels of various plant diseases. There also was a high level of insect pressure from alfalfa weevils, plant bug, lygus bugs, and aphids. Depending where you were in the province, you were probably affected by one or more of these insects.

By controlling the disease and insect pressure, you are protecting the yield potential of your crop. If you stop scouting or spraying for weeds, insects or disease you have basically given up for the year. With the commitment of growing alfalfa seed, I find this unexpected since you have a perennial crop with a managed pollinator. You have invested so much time, effort, and money to this point. Why not follow the crop through, and control the stresses you can—namely the weeds, diseases and insects?



Here is a map showing the excessive moisture  
....again with Atwater in the "pink"

# New Fungicides and Fungicide Rotation

Since alfalfa is a perennial crop, it is a bit like continuous cropping canola. Each year, the problem weeds, plant diseases and insects continue to build up in the field. One method to help delay or prevent resistance is to rotate the use of different chemical groups or chemical molecules. The two main fungicides that we use are Headline (Group 11) at late June and Lance (Group 7) at mid-July timing. It is hard to get away from the Group 7 and 11 chemistry but you can change the active ingredient. In a three year stand instead of spraying the Headline - Lance combination every year you can change it up.

First year: Headline (Group 11) followed by Lance (Group 7)

Second year: Acapela (Group 11) followed by Vertisan (Group 7)

Third Year: Priaxor (Group 7&11) followed by Vertisan or Lance (Group 7)

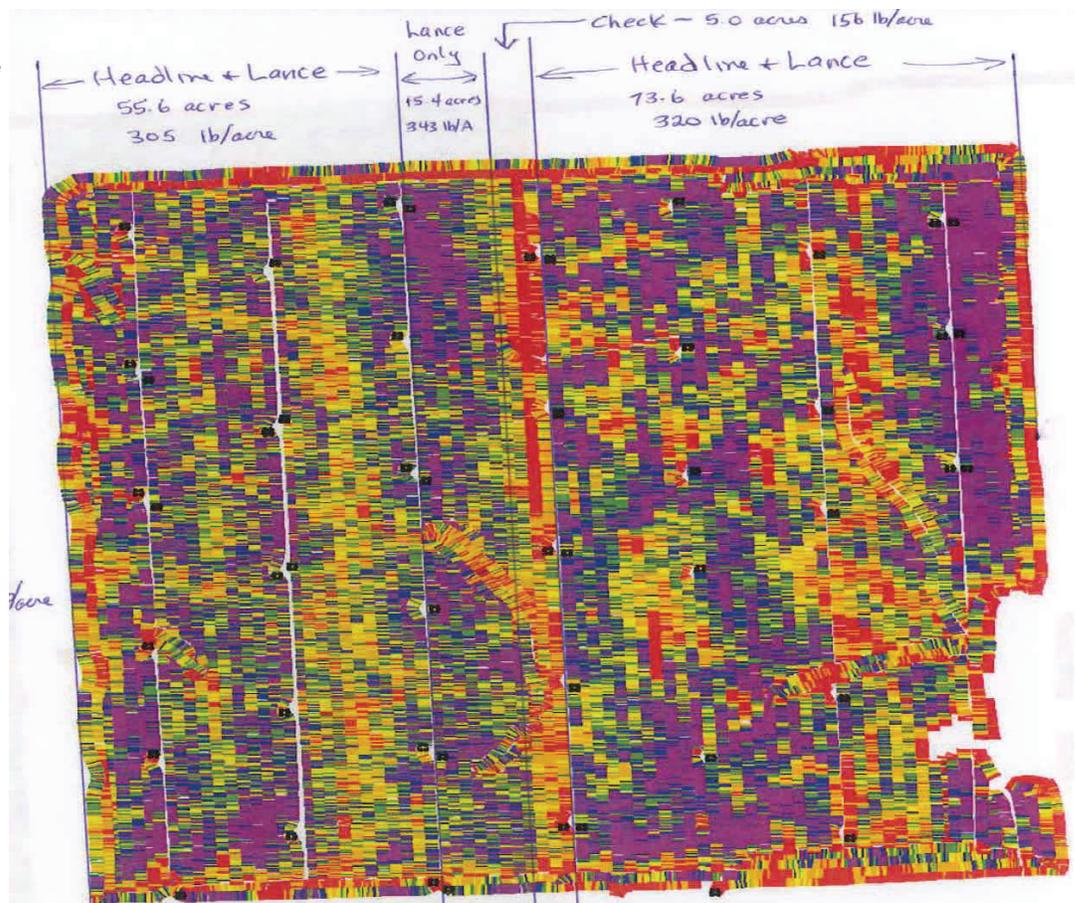
As you can see group 7 and 11 chemistries are hard to avoid, but by changing the active ingredient it might benefit the disease control and slow resistance. Priaxor is a new chemical that is a mix of Headline and a new active called Xemium, the Xemium is supposed to stay in the plant longer. The Vertisan is also a fairly new chemical and is supposed to move in the plant more than the older chemicals. We have a few trials in this year comparing these combinations, and will have to see if any differences show up. Some of these fungicides are not registered on alfalfa, **use them at your own risk.**

## Alfalfa Plant Disease And Fungicides

These last few years disease incidence in alfalfa has been very high. Diseases include spring black stem, sclerotinia and occasionally botrytis. With all the extra moisture the alfalfa grows very lush and rank, eventually it lodges and second growth starts. At this point the disease starts to take over. Fungicides can only do so much, under high humidity conditions fungicides will only stay in the plant for up to two weeks. We did a third application this time using Vertisan on some acres in August. If the rain had stopped at that point, I think we would have seen some benefit. Fungicides are just part of the control method for disease.

Spring burning on fields where possible is a good practice to remove disease spores from the field. Vertical tillage is also worth looking at as it breaks up the old trash and buries some of the disease spores. The burning and vertical tillage can only do so much as well. The best results are obtained if you combine them with fungicides.

This yield map shows the increased yields from fungicide applications. The black dots are bee shelters, and the white lines are mowed roadways. The purple colors are yields of 350 lbs/acre or more, while red and yellow are in the 100 to 200 lb range. Note the check at 156 lbs/acre, while the 2x fungicide treatment is in the 312 lb range.



## New Herbicides and Herbicide Rotation

The use of group two herbicides in alfalfa seed production is very high, and group two resistant weeds are becoming more noticeable. Kochia, wild mustard, and cleavers are a few examples. If you use Clearfield wheat or canola in the establishment year and keep the alfalfa stand in for three years you will have four years in a row of group two chemical applications. This is not an ideal situation, but there are a few things that can be done to lower your risk. You can use lower residual options like Odyssey DLX or Viper (tank mixed with Select or Assure II) compared to Pursuit. The Pursuit takes longer to break down as compared to the Odyssey or the Viper. As well the Viper has Basagran (Group 6) chemical with it. Ideally you can spray in your establishment year Odyssey on the CL wheat and Odyssey DLX on the CL canola (do not use **Aries** on the CL canola it will hurt the alfalfa). On the first year alfalfa field you can spray Viper (tank mixed with Select or Assure II), on second year spray Odyssey DLX and on the third year fields spray Viper (tank mixed with Select or Assure II). By using this chemical rotation you lower the amount of group two residual chemical that is sprayed over the four year time frame and also keep your options open for the following year crop on the alfalfa stubble. Also you can use Velpar (Group 5) and Authority (Group 14) in the late fall when the alfalfa is dormant. The Velpar has activity on sweet clover, sow thistle and a few other broadleaf weeds. The Velpar worked very well this year for us. You can spray Authority as well in the fall. It has good activity on kochia, cleavers and some other broadleaf weeds. It worked good this year as well. Edge (Group 3) continues to work for us on some broadleaf weeds including kochia, and wild oats and green foxtail. A new chemical called Valterra (Group 14) has come out recently. It controls **volunteer canola**, kochia and some other broadleaf weeds. We are going to try some this fall. Most of these herbicides are not registered on alfalfa and you are **using them at your own risk**.



Authority fall applied to control kochia on saline soil

This field was sprayed with Authority Oct 30 2013. This picture is taken on August 19 2014. We had received over twenty inches of rain by this time. This area is very saline, and all that grows here is kochia. Without the Authority this saline patch would have been solid kochia..

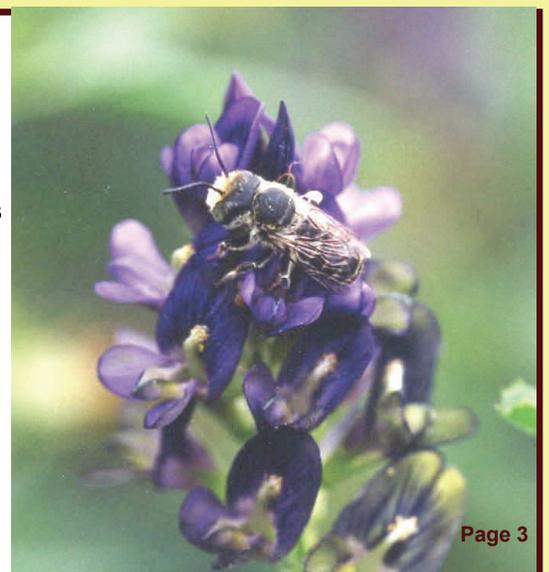
## Leafcutter Bee Markets

Excellent bee prices are keeping farmers growing alfalfa seed. Bee producers have had some terrific returns, and the future is still looking bright.

Bee release was later than normal this year. We had some excellent weather following bee release, but unfortunately the nice weather was short lived. If August had continued warm and dry, the bees would have had a better chance to finish up. Our guess for SK is an average return at a 1.5 to 2 fold increase.

All signs are that bee prices will remain strong. Selling bees into any of the three major markets, pacific northwest USA alfalfa seed growers, hybrid canola seed in southern AB, and low bush blueberries on the east coast, have all had a few bumps along the way. Still with all factors considered, the demand should be greater than the supply.

**\$100 + per gallon is realistic.**



# Weed Control

We applied Pardner at 20 acres/jug and 12 gal of water/acre to about half our alfalfa during day, mid July. The days were about 27 C and mostly sunny. The Pardner was tank mixed with our second application of fungicide to save on passes and the timing is the same. This pretty much stopped the sow thistle and Canada thistle from flowering and setting seed. It was better control we than expected, with little to no effect on the alfalfa seed production.

**Check Strip—No Pardner Here**

**Full Rate Pardner July 15th 2014,  
really suppressed Canada thistle  
and sow thistle flowering**



## Establishing Alfalfa

The herbicides to control broadleaf weeds in alfalfa are very limited. With this limitation it is important to think about your target weeds and what works best and at what timing. The crop that you under-seed with alfalfa determines some of your chemical options. Most growers have wheat in their rotation, so if you can time alfalfa planting with your wheat crop you gain some establishment benefits compared to under seeding with canola. By under seeding with wheat you can use Embutox (2,4-D B) up to flag leaf timing to take out seedling sweet clover and Canada thistle. You don't have this option in canola. Also you can straight cut the wheat/alfalfa crop. With canola you have a swath lying for a couple of weeks or more which stunts the alfalfa seedlings. Plus in your first year of alfalfa seed production you have volunteer canola problems. Pardner is your only option in crop on volunteer canola and you have to spray at least twice, and if your timing is not right you can hurt the alfalfa with the Pardner. The benefits growers see to under seed with canola are they get one last cash crop in before the alfalfa, and they can use Clearfield canola so they can spray Odyssey or Pursuit on the field. You can use Clearfield wheat and then have the ability to spray Odyssey or Pursuit as well. As for the cash crop answer, if you have wheat in rotation just shift the alfalfa seeding to these acres.

Alfalfa established inter-row  
with wheat at Cutknife, SK  
in 2014



# New Insecticides and Their Use in Alfalfa Production

We had lots of alfalfa weevils again this year in our alfalfa. They started to show up in the second and third year stands around the second week in June. We sprayed Lorsban on these fields 8 to 10 days before bee release and got pretty good control. On our first year fields we didn't see any weevils until the end of June so we sprayed Matador just prior to bee release. On two fields that were sprayed with Lorsban this year, more weevils hatched after the bees were in the field. Perhaps the reason for this was the seven inches of rain we received over 48 hours at the end of June; it washed off the remaining Lorsban resulting in little residual left to control the weevils. So we went in with Coragen, a new insecticide from Dupont. It is a very specific insecticide that doesn't have any activity on plant bugs, lygus bugs, or aphids, but at the 150 ml per acre rate we had good activity on the weevils. It is an expensive option but it is very safe on the bees and has up to two weeks residual on the weevils. We sprayed the Coragen at 12 gal/ac of water. If we had to do again would go with 15 gal/ac of water to get the best possible coverage. The weevils have to eat the sprayed alfalfa in order to die. We could see no effect on the leafcutter bees or any of the beneficial insects including lady bugs.



Here is a sweep done June 23 before the Lorsban was sprayed prior to bee release. This was on a third year field. There are 50 plus weevils in the picture, which can cause a lot of damage in a short time.

We also had aphids in our first year alfalfa fields around the first week in August. We started to see damage on the blossoms and new pods on half of the new acres, so we sprayed those acres with Matador in the evenings. On the remaining first year fields we were getting close to threshold on the aphids, but were not seeing any damage so we did not spray these acres. On the acres we didn't spray, we noticed a population collapse of the aphids occurring. It appeared a fungal disease was killing most of the population. Apparently this can occur under the cool and wet conditions that we had. Murray says he has heard this can happen, but never in his lifetime have bugs died without his help!

## Alfalfa Seed Market

As a farmer, the number one thing is to **grow the crop**. When the weather does not cooperate, it is nice to have strong prices to offset the low yields. The alfalfa seed market is holding its own.

Western Canada has seen a slight increase in seed acres in 2014. A few new growers have started, and some veteran growers that were idling bee equipment have added a quarter or two again.

The USA is still trying to rebuild their seed production acres, however the increase is limited by the lack of leafcutter bees. Just like Canada, we are only talking about a small jump in acres. This puts more seed on the market, but on the other hand helps out our bee prices too.

Even with a few more acres in production, the Canadian alfalfa seed crop appears mediocre at best. The current demand has been able to absorb North America's supply. Inventories are low and the supply/demand ratio still points to barely enough alfalfa seed to meet demand.

The USA/Canadian exchange rate hasn't fluctuated much over the summer and is still in our favour. Right now you can get close to \$1.10 Canadian for \$1.00 US. As the US dollar strengthens, we can pay you more for your seed.

Last year we paid \$1.85/lb FOB your yard for good common. Good common is 99.5% pure, 90% germination. As soon as you have purity issues, the price we pay will be less.

At the current exchange the market allows us to pay \$2.00/ lb minimum for good common right now. As soon as you get your alfalfa harvested please get your samples to us. We will pick up the seed in your yard, or compensate you for hauling it yourself. All open market seed will be paid in full within 7 days.

**Common Alfalfa Seed—\$2.00 per pound Minimum Picked up at Your Yard**



We included this picture, taken by Gavin, to test your sanity. If you know what is happening in this picture, then we had the same issues!

***Good Luck With Harvest and Safe Farming !!***

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