Direct Seeding Issues & Opportunities

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Farming in SE Sask. has a mixed bag of production challenges:

- to dry
- to wet
- crop diseases (FHB, sclerotinia, ascochyta etc)
- insect problems from sawfly, grasshoppers to diamond back moths etc

2 of these factors when combined have been conducive for various plant diseases and its build-up in our soils. Agronomic crop rotation continues to provide a important step to minimize these diseases. Today I will talk more specifically on our challenge relating to Fusarium Head Blight (FHB) and cereal production.

FHB has been on the increase in the past 5 years. Growing top grades of durum consistently can be a real challenge or almost impossible quest. Lower grades often reduces grain movement opportunities and always associates itself with lower price. Malt barley rejected to feed due to FHB also means only to cattle as the hog industry can't tolerate its presence. Moving this product out of province has become a issue when it is directed West to feed lot alley in Alberta. Both of these scenarios create a negative margin proposition even with textbook yields Combining strategic crop rotations with fungicides appears to be our only strategy to minimize the effects of FHB and maintaining the production of these crops.

We now are realizing that more advanced crop rotations may be required to minimize FHB in our soils and residue. Our own farm is experimenting by design and "by gee and by golly" created by economic opportunity. We are experimenting with rotations that include:

Cereal-Broadleaf-Cereal-Broadleaf (C-B-C-B)
Broadleaf-Broadleaf-Cereal (B-B-C)

The so called textbook rotation of C-B-C-B is being challenged with Durum-Canola-Canary/Oats-Flax/Pulse. This rotation has a canary/oat crop in year 3 that appears to be minimally susceptible to FHB. This program then allows for Durum (highly susceptible) to be grown only 1 in 4 years.

Rotation 2 of B-B-C has been a Flax/Pulse-Canola-Durum rotation. This is comparing the value of 2 non-susceptible broadleaf crops back to back to minimize the susceptability of durum to FHB in year 3.

All the above trials include the timely application of Folicur and/or Tilt/Stratego fungicides. Some European strategy's suggest a repetitive early/multiple application of a strobilin type product to build-up internal protection against FHB verses older technology like Folicur on the flowering (anthesis) stage.

Historically our results have shown more promise with Folicur in respect to yield and some reduction to FHB. However, the summer frost of 2004 destroyed any constructive data with strobi or Stratego/Headline technology.

My only successful trial for 2004 is as follows:

Rotation	% FHB
Flax-canola-durum	TBA
Peas-Barley-canola-Durum	TBA

*Seeding date of May 4-5, yields of 50 bu/ac.
TBA- To Be Announced (at meeting)

It appears that with-out a frost event in 2004 we still grew a #3 - #4 AD Durum grade. FHB levels based on rotation will be discussed during presentation. Local seed analysis on other aggressive farms are showing HRS with up to 6 percent FHB (fusarium graminerium) produced in 2004.
CGC grading standards are as follows:

Amber Durum:

Grade	% Fusarium
1 AD	0.5%
2 AD	0.5%
3 AD	2.0%
4 AD	2.0%
5 AD	5.0%

HRS:

1RS	0.25%
2RS	1.0%
3RS	2.0%
FEED	5.0%