

FALL SEEDED CROPS

Are they an option?

Why Consider Them?

BATTLE RIVER IMPLEMENTS

AGRONOMY UPDATE

July 2016

Hello Again Everyone,



This month we are going to take a look at fall seeded crops; specifically winter wheat and fall rye. Generally, I use my space in these articles to review the basic agronomics of the crop in question – variety selection, optimum seeding date, fertility, and the various pests. This month I will defer to the experts on winter wheat production for this.

I would like to thank Monica Klaas, who is a contract agronomist with Ducks Unlimited for her contribution to the newsletter this month. Her major point of planning ahead highlights how to go about maximizing your chances of successfully growing winter wheat. So with Monica looking after the “how to” of production this month, I would instead like to talk about why I believe the use of fall seeded crops can be a valuable tool in sustainable agriculture. While it is not easy to think about lining up seed and fertilizer and ensuring the seeding equipment is ready to roll at a time when you need to be preparing for harvest, there are some benefits to making the effort that need to be considered.

One of the major challenges facing producers today is the fact that all of our crops are short season, spring seeded crops. While we rotate through cereals, canola, pulses, flax and a few other minor crops, they are all the same type of crop



Fall Rye near Lougheed, Ab - July 13



Winter Wheat -
Photo courtesy of Bayer Crop Science Farm Forum



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crops we grow. This has resulted in a dependence on a single management tool (herbicides) to keep many of our worst weed problems under control. This is quickly leading us down the path to herbicide resistance. Some interesting work has been done in South Dakota that show the advantages of alternating “cool season” crops (which are all that we basically grow) with “warm season” crops. A researcher named Randy Anderson with the USDA has produced some startling results by mixing these two types of crops into a rotation system. What he has shown is that by proper rotation of crop “types” the impact of weeds such as wild oats can be greatly reduced while at the same time reducing the reliance on herbicides to do it. The best rotation they have hit upon is where they do 2 “cool season” crops followed by 2 “warm season” crops. I have attached a link to a paper done by Dr Anderson for those who find scientific papers to be a cure for insomnia. <http://www.dzumennis.nic.in/Microbes%20and%20Soil%20Fertility/pdf/A%20Multi-Tactic%20Approach%20to%20Manage.pdf>. Much of the work he has done is not applicable to central Alberta and his emphasis on no till vs cultivation in many of his presentations makes me think we are far ahead of his target audience in this regard, but his central concept of using crops of differing life cycles to help in weed control is probably worthy of further thought. I

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work being done closer to home, there has been a long term at Lacombe over the last several years looking the impact of

in terms of life cycle. So while our present rotations provide relief from specific pathogens such as diseases that are species dependent for their life cycle, they do nothing to relieve pressure from pests such as wild oats or other weeds that flourish in the environment we provide for them in almost all of the

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rotation on wild oat control. In a long term study they were able to find rotations that did well using no herbicide for wild oat control. They used both winter wheat and silage barley as a way to control wild oat populations. For more details, follow this link to Top Crop Manager <http://www.topcropmanager.com/weeds/integrated-wild-oat-management-19354> or check out the Canola Research Hub for the research summary at <http://research.canolacouncil.org/research-summaries-details/11/integrated-crop-management-systems-for-wild-oat-control>. Why do I think this is important? By the end of this year, it is more than likely that close to ½ the fields in Alberta will have some level of herbicide resistance to at least one herbicide group. As is mentioned in the Top Crop Manager article, there is already a group of fields near Red Deer that have wild oat resistance to Group 1, 2 and 8. In other words, spring planted cereal production is no longer possible on these fields without a major shift in how the weed issues are handled. What about winter wheat or fall rye as an

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alternative? We have long known that wild oats do not thrive in these crops. In many cases producers are often able to forego wild oat herbicides altogether. So if you are dealing with huge weed issues that are a result of failing herbicide options, you need to look to different solutions. And when you start looking at some of the other benefits that come from producing winter wheat or fall rye, such as spreading out your seeding and therefore your harvest workload, and helping to avoid pests such as wheat midge or sawfly, it becomes an option worth exploring. Possibly winter wheat or fall rye can be a viable option on your farm that can save you inputs and add to your bottom line. You’ll never know unless you look into it!

Now I would like to take a look at some practical considerations in winter wheat or fall rye production, as supplied by Monica Klaas from Ducks Unlimited





Ducks Unlimited Canada
Conserving Canada's Wetlands

Contributing Writer: Monica Klass

Plan Ahead for Success

Growing winter wheat and fall rye is becoming more popular in all parts of western Canada, including central Alberta. Winter wheat is gaining popularity because it allows farmers to spread out the work load of seeding, and harvesting. Additionally, because of different crop timing, winter cereals assist in weed and disease management. Planning ahead is the key to successful winter wheat production. The optimum date to seed winter cereal is quickly approaching, hence sourcing seed, and fertilizer is the key.

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Field Selection

Step one is selecting the right field. Most winter wheat is grown after short season crops like canola or pulses, to ensure the fall crop is seeded before September 15. Winter wheat is able to utilize some of the nitrate nitrogen fixed by pulse crops also makes winter wheat a great choice to follow pulse crops. Regardless of the previous crop, attention to removing any green plant growth of weeds or spring crop to break the 'green bridge' to prevent the transfer of disease & insects to the fall crop. Also, remember to check any residual restrictions of all in crop herbicides used to prevent any detrimental effects in the winter wheat crop.

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Variety Selection

Winter wheat varieties have developed dramatically in the past few years. If a market for grain is available, selecting a milling quality variety is recommended, whereas, if a feed or other market is targeted, selecting a general purpose variety is preferred. For a listing of current varieties, and suppliers of seed, consult The Alberta Seed Guide, or check out the website www.seed.ab.ca. Varietal resistance to certain diseases, like rust & fusarium are also included in the variety guide. Gateway is gaining popularity as a milling variety, and Pintail is a popular general purpose variety. Again, producers should consult the variety guide for details.

Seed winter cereals as shallow as possible with recommended depths no deeper than one inch.

Seeding

Winter cereals perform the best when allowed to reach the 3 leaf one tiller stage prior to freeze up. Typically, optimum seed dates in central Alberta is sometime from late August to mid-September. Seed winter cereals as shallow as possible with recommended depths no deeper than one inch. A pre seed 'burn off' is highly recommended to ensure optimum stand establishment. As I mentioned above, this is an important step to break the 'green bridge' to manage disease and insect carry over from spring crops. Research has shown that using seed treated with both a fungicide and insecticide such as Raxil Pro Shield® has a positive benefit to establish the best stand of winter hardy seedlings.

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Crop Nutrition

Supplying the proper fertility to winter wheat and fall rye is extremely important. Following 4R Nutrient management, (the Right Rate, Right Source, Right Time, and Right Place) is critical to maximum fertilizer return on investment. Soil sampling is the first step to determining the proper forecasted nutrient reservoir in any field. From there, producers need to consider if they plan on applying all of their nutrients in the fall or if they can utilize a split application between spring & fall. Many producers are choosing

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to apply all the fertilizer in the fall to manage work load and wet fields in the spring. Up to 30 lbs of N can be safely placed with the seed, with the remainder being side banded with a stabilized product such as ESN.

In the case where a split application of fertilizer is preferred, it is recommended to apply the balance of fertilizer as early as possible in the spring, as application after late tillering does not provide additional yield. Generally, winter wheat has a nitrogen utilization rate of approximately 1.4 lbs/ bu of expected yield.

Once the crop is established, growers are urged to be patient for the crop to start growing again in the spring. Spring Assessment tips, as well as weed, disease and insect management tips can be found by going to www.growwinterwheat.ca. For more information specific to Fall Rye production "Ropin' the Web" is a good place to start [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex1269](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex1269)

In conclusion, I would like to add that while the short term market for winter wheat and fall rye may not be particularly attractive at the moment that does not preclude you from trying a few acres and getting comfortable with winter wheat production and finding out if it has a fit on your farm. There may be a day in the near future where you need to deal with a field that has both group 1 and group 2 resistance (some of you are already facing this reality). Avadex can only buy you time - it too can develop resistance and your fields will not "recover" from resistance. In most cases you are dealing with a permanent shift in the weed population. When you arrive at this moment and are looking for alternatives, you may be thankful to at least have had enough experience with fall seeded crops to know if they are a viable option for you.

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*As always, any feedback, questions
or comments are welcome.*

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like to see addressed, just drop me a line at
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