

Maximizing Winter Wheat Yields with Proper Nutrition

Speakers:

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| Ken Gross | <i>Ducks Unlimited Canada</i> |
| Elmer Kaskiw | <i>Manitoba Agriculture and Resource Development</i> |
| Neil Ryan | <i>Ducks Unlimited Canada</i> |
| Edgar Hammermeister | <i>Western Ag Professional Agronomy</i> |

Objectives:

Demonstrate a fertility program to achieve high yield winter wheat.

Collaborator: Ducks Unlimited Canada

Demonstration Treatments:

Main Plot – Variety

1. Gateway
2. Elevate
3. Wildfire

Subplot – Fertility

1. "Producer practice": 100 lbs of N; 30 lbs of P
2. "Balanced", High yield practice: Westernag recommendation, split app

Demonstration Summary:

There are great new winter wheats available to Manitoba farmers and more in the pipeline, says Ken Gross, an agronomist with Ducks Unlimited Canada and the Western Winter Wheat Initiative.

"(AAC) Gateway is my new favourite and I really like the way it looks," Gross told the Crop Talk Westman webinar Aug. 31. "It has very good protein. I think this is a real winner for Manitoba... because it is such a good variety and well suited for Manitoba. I think it is going to take a lot of the acres away from traditional (CDC) Falcon areas. It has a yield bump over Falcon. "I think you will see a lot more acres of Gateway in the future." Emerson is the most popular winter wheat in Manitoba with 134,000 acres covered by crop insurance this year, accounting for 65 per cent of the insured winter wheat acres. CDC Falcon is second with 12 per cent, followed by AAC Gateway at 10 per cent. But Gross predicts AAC Gateway will quickly gain ground. Emerson is popular because it's the only winter wheat rated "R" or resistant to fusarium head blight, which hit growers hard two years ago, he said.

"That scared a lot of guys and I don't blame them for wanting to find a variety that could provide protection against that," Gross said. "Emerson's winter hardiness is only (rated) 'good.' It is a taller variety. Although it is rated 'very good' for lodging I have seen it go down. The

biggest gripe I have against Emerson, other than the height, is the fact that it doesn't quite have the same yield as Falcon." AAC Gateway's yield potential is two per cent above CDC Falcon. AAC Gateway is an inch taller than CDC Falcon. Both have the same winter hardiness rating — "fair."

They share the same a "very good" rating for resistance to lodging "good" for resistance to stem and leaf rust. However, AAC Gateway is a milling wheat and CDC Falcon is not. Gross said in Lethbridge, Alta. trials conducted this year, AAC Gateway's protein content was 13.8 per cent versus 12.3 and 11.5 per cent for Flourish and Radiant, respectively. Crop insurance data shows last year Emerson averaged 79 bushels an acre in Manitoba, versus 71 for AAC Gateway.

Pintail and Wildfire could also be popular in Manitoba, Gross said. Both have good winter hardiness so could be attractive to farmers farther north, where sometimes winterkill can be a problem with winter wheat. "It (Pintail) has got the highest winter hardiness of any winter wheat variety out there," he said. "When you are seeding an organic crop you usually don't have any residue to trap snow in the fall, so Pintail might be a pretty good option for you to look at under those circumstances. There are new winter wheat varieties with traits that can help you in different situations."

Wildfire appears to have great yield potential In Alberta. Developed by Agriculture and Agri-Food Canada wheat breeder Rob Graf at Lethbridge, Wildfire outyields Radiant and Moats by 15 per cent. Gross said it's unclear how Wildfire will yield in Manitoba. "Wildfire is the one I think will take over a lot of acres in the next few years," Gross said. "Wildfire is a little bit shorter than Emerson, but it still has a 'good' rating for fusarium. It has some of the good disease resistance that Manitoba producers are looking for. The only place it really falls down is on stem and leaf rust. It is not rated very well for that. But I think we can control that with fungicides because every producer I know always applies a fungicide at flag leaf and that should take care of that issue, but we will have to wait and see."