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Adjust nitrogen input, swath timing with new canola hybrids: expert

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Before Dan Orchard shifted his concentration to clubroot, he was an expert on canola fertility.

The Canola Council of Canada plant scientist now has expertise in both aspects of the crop, and he recently attended the Farming Smarter conference to talk about how to attain “colossal canola.”

It begins with seeding rates.

Orchard said growers need at least five plants per sq. foot to achieve full yield potential, but they should seed double that amount to compensate for the seeds that inevitably won't survive.

“It's not cheap ... but that extra pound of seed I think can go a long ways,” he said at the Dec. 8 meeting.

He also encouraged growers to seek planting uniformity, which he deemed “nearly as important as seeding rate.” A uniform stand makes it easier to decide when to spray and swath.

Orchard said nitrogen recommendations for canola have changed in recent years. Several hybrids are more efficient at nitrogen uptake, so two to three lb. per acre might be sufficient.

As yield goes up, so does nitrogen efficiency, he said.

For phosphorus, any soil test showing less than 20 parts per million is a red flag to add the nutrient. Unlike nitrogen, which is mobile in the soil, phosphorus stays within an inch of where it is placed.

“I'm not a big fan of putting fertilizer with the seed,” said Orchard, but phosphorus is the exception.

A test of less than 20 app. calls for placing 20 lb. of phosphorus with the seed, but tests that show 40 to 50 p.p.m. means there will be no benefit.

“From a selfish point of view as an agronomist, I don't like to see fertilizer with the seed because it's too hard to diagnose” any future problems, Orchard said.

Potassium is not usually an issue in prairie soil, but canola will mine that nutrient, so he advised watching soil tests to ensure it is sufficient.

As for sulfur, “it's huge for canola,” he said. Typical signs of deficiency include cupped purple leaves and small, pale flowers, as well as lack of pods.

Orchard said the recommendation for swath timing has also changed in recent years. The new one is to wait until 60 percent colour change, up from 30 percent.

Varieties resistant to shatter allow the delay, which should increase yield.

As for clubroot, Orchard reminded growers that it's an issue with soil rather than just with canola.

Clubroot exists in more than 2,000 Alberta fields. Low reports from Saskatchewan are because of lack of testing, he said. In Manitoba, more extensive testing of soil rather than canola plants is revealing low-level presence in many areas.

Orchard predicted that more new strains of clubroot will be discovered in coming years, which will limit the effectiveness of planting canola varieties resistant to only certain strains.

He said boron looks promising as a potential management tool, which means canola varieties with a high tolerance for boron could be one answer.

“I think this is a huge opportunity for the seed industry to start breeding boron tolerance into our canola.”