Alberta plagued with blackleg in ‘entire canola growing area’

Mistaken identification | Fungus is under-diagnosed, says expert

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Medicine Hat — Ralph Lange’s graphs make it clear that Alberta has far higher levels of blackleg than Sask-atchewan and Manitoba.

But the program leader with Alberta Innovates thinks it might be a matter of better identification.

Lange told the Farming Smarter conference earlier this month that Alberta is playing catch-up to Sask-atchewan and Manitoba. It hasn’t had the consistent survey data from 2003 to the present that is available in the other two provinces.

In remedying that situation, Lange and his team examined every stalk from 188,000 plants pulled from randomly selected Alberta fields.

They concluded that blackleg is widespread and under-diagnosed.

“Blackleg is spread across the entire canola growing area of Alberta. There are no areas, really, that are spared to any great extent.”

However, diagnosis is an issue.

“We’ve had agronomists, or even pathologists, standing in fields infected with the stuff, 80 percent or more incidence, and people are calling it root rot, or sometimes scler-otinia,” said Lange.

He and his team found a greater than 80 percent incidence of blackleg in Alberta crops. Incidence doesn’t necessarily mean infection or yield loss, but it does mean the fungus is present.

Lange considers blackleg to be the most important canola disease in Canada and the most destructive worldwide. It is also here to stay, so farmers must be able to accurately identify it and take control measures.

He suggested cutting off canola plants at the base and examining the stem cores for dark discolourations. Blackish or blue-black lines are a sure indicator.

Rolling the stem while applying hand pressure is another way to distinguish blackleg from sclerotinia, which promotes root rot. He said it is probably sclerotinia if the stem shreds and has ragged fractures. A stem infected by blackleg won’t shred that way.

Black, raised spots on older, woody stems, which can’t be easily scraped away with a fingernail, are other indications that the fungus is present.

Seed can also be infected with blackleg, but only blotter or polymerase chain reaction tests are conclusive.

Current blackleg control recommendations include use of treated seed, but Lange said that isn’t necessary.

“I think that’s passé now. Number one, it’s spread all over the place. Number two, the latest data indicates that the role of seed in causing infection in the field is actually pretty negligible. It’s not very important at all.”

He provided several recommendations for conrol:

- Learn to recognize blackleg.
- Rotate resistant cultivars.
- Use fungicide.
- Eliminate any green bridge.

Lange said fungicides haven't typically been used to combat blackleg because resistant varieties were doing the job. Using different resistant varieties can help, to a point.

"The truth is, the breeder that bred your first variety could have also bred your second variety and maybe have used the exact same blackleg resistance gene and you're just throwing the exact same thing at it."

Fungicides can be effective in combination with resistance, as long as spraying is timed properly.