

You Can Learn A Lot From Canola Stubble

BATTLE RIVER IMPLEMENTS

AGRONOMY UPDATE

SEPTEMBER 2018



The final report card on canola management is generally considered to be the yield taken off the field. That's the bottom line that tells you if those decisions on seeding rate, fertility, as well as the in-season management decisions on weeds, insects and diseases yielded a positive result. But just because the crop is in the bin, that doesn't mean that

there still aren't lessons to be learned from that field!

First of all, this is a great chance to check how your seeding rate translates into plants/ft. It is recommended that a plant count be done at emergence. I try to do them when the canola is in the 2 true leaf stage for consistency. However, not all of those seedlings are going to make it, so going out and counting in the fall will give you valuable additional information. I consider the spring plant count as critical in figuring out what my emergence rate is and what impact my opener, seeding speed, and fertilizer placement can have on that number. The fall number gives me a picture of what

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impact the environmental conditions had on that stand.

Secondly, this is a great opportunity to evaluate disease pressure on the field. After harvest, all of the off-colour and infected stalks are easy to see and count. Ideally this step would be done at swathing time if the major concern is blackleg, as stalks that have dried down may get other



Blackleg Infection



Blackleg In Canola

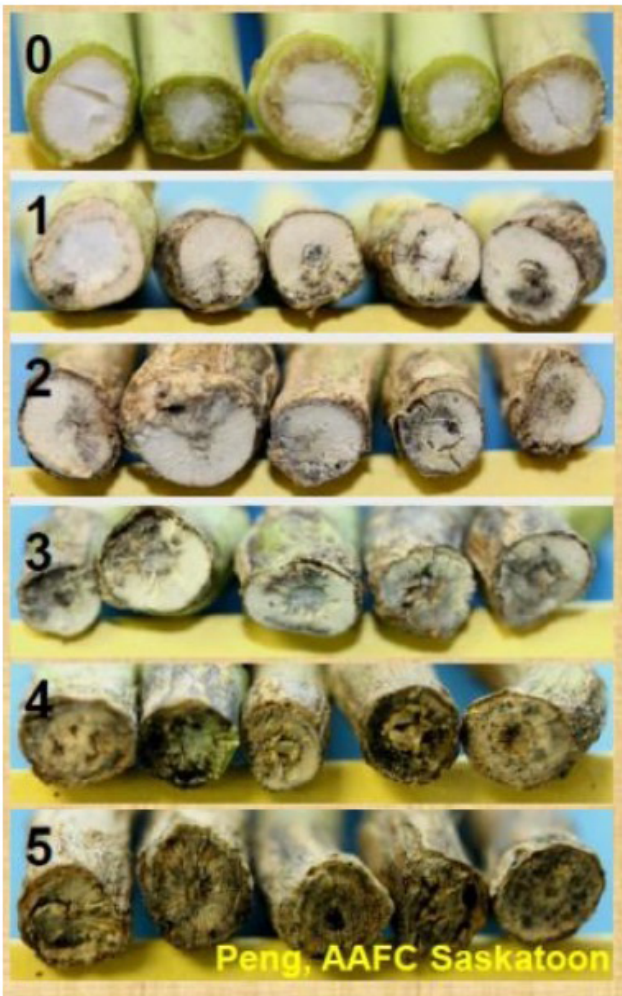
secondary infections in them that make it harder to identify what disease was actually infecting the plant. If the canola is straight cut, the inspection should happen as soon as possible after harvest, before the stalks start to decay.

When a stalk is identified as suspicious, it should be clipped at the top of the root/base of the stalk to see if it exhibits the typical symptoms of blackleg;

As a rule of thumb, if more than 20% of randomly collected stalks show level 2 or higher Blackleg infection rates, it is time to look at different resistance genetics, because the resistance in the variety used in the field no longer lines up with the strain of blackleg in the field. If you can't get out scouting shortly after combining, there is still something to be learned from inspecting the stem pieces that are left in the field after harvest. Look for the residue

BLACKLEG FIELD RATING SCALE

Score blackleg for each clipped tap root using the following scale



0
No diseased tissue visible in the cross section.

1
Diseased tissue occupies 25% or less of cross section.

2
Diseased tissue occupies 26-50% of cross section.

3
Diseased tissue occupies 51-75% of cross section.

4
Diseased tissue occupies 75% or more of cross section.

5
Diseased tissue occupies 100% of cross section, with significant constriction of affected tissues; tissues dry and brittle; plant dead.

that seems to have spots of dirt on it that is hard to rub off. This will be blackleg pseudothecia; the overwintering form of the disease. If anything close to half of the stem pieces looked at have 50 to 100 of these little spots on them, you are at risk for significant blackleg losses in the future.



Pseudothecia spores – Canola Council of Canada

Finally, this is a chance to scout for clubroot. The best place to look is by the approaches where the equipment enters and leaves the field. Another place you can often find the disease is in the low spots, as the clubroot spores tend to move with the water flow in the field. Even if you are using resistant varieties and have never noted clubroot in the field before, it's worthwhile pulling any suspicious stalks and looking at the roots.



Clubroot infection in a resistant variety

According to the Canola Council, there are 3 things to remember if you find a situation like this. First, not all resistant varieties will give you 100% resistance, so you may not be looking at a new pathotype. Secondly, if your

infection is limited to a small patch, you can greatly reduce the spore load in the soil by pulling and burning the infected plants – most of the spores are still in the roots and not in the soil at this point. And thirdly, and in my opinion most importantly, do not ignore this warning to adjust your rotation! We already know we can't depend solely on genetics to deal with this disease. Unless resistant genetics are combined with best management practices, this disease will continue to spread and impact our ability to produce canola.

These are just a couple of examples of the things you can learn by taking a critical look at canola stubble after swathing or harvest, so I encourage everybody to take a walk this fall and find out what your canola field is trying to tell you!

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