SPECIAL AREAS BOARD

Notes from the Field — Fall 2018

Let's talk clubroot

As we now have CONFIRMED cases of Clubroot in our neighbor the MD of Provost it is apparent that this agricultural pest is a force to be reckoned with and we need to take action to protect our fields from being infected.

What Can We Do??

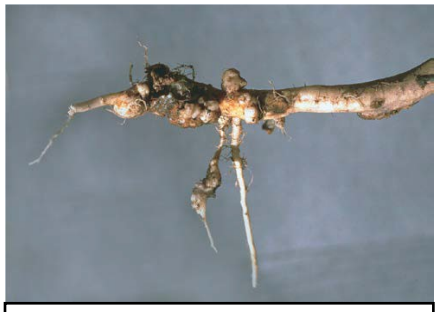
Good sanitation practices between fields is the ounce of prevention needed to stop this deadly pest from spreading, along with weeds, insects, and other diseases. This applies to not only agricultural machinery moving between fields, but **recreational**, and **industrial traffic** as well! **Have a conversation with lessees to ensure they are also practicing good sanitation practices!** Making small efforts to clean equipment and vehicles that are laden with dirt and mud from the previous field helps to close the door on the vehicular vector for the movement of clubroot.

Severe clubroot galls.
Photo by Kelly Turkington

Proper crop rotation is key to keeping any crop healthy and disease free but is particularly important to mitigating risk of clubroot infection. *The Longer the Stronger*- **increasing the length of rotation** before replanting Canola will protect against the infection of field and will promote great soil health as well- double whammy! While it cannot completely protect clean fields from the introduction of the fungus it has been shown to increase the field's ability to resist clubroot and other diseases and prevent any type of severe infestation. **The longer** and more varied the rotation **the better** resistance to clubroot infestation. MINIMUM guidelines suggest at least 3 years out of canola before reseeding the oilseed.

Premature ripening.
Photo by Stephen Srelkov

Planting resistant varieties is an easy step to take to diminish the risk of a clubroot infection. While this does not guarantee a clubroot free field it can minimize the risk of infection and the severity of symptoms resulting in less yield loss than could be seen in an infected field with a non-resistant variety. Contact your seed supplier to make sure you are up to date on the latest resistant varieties. **Remember**: Although resistant varieties are a good measure to take, they should not be the only line of defense relied on.



Moderately infected canola root.
Photo by Valerie Sowiak

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Notes from the Field — Fall 2018

Let's talk clubroot cont'd

What it is: A typically soil borne fungal disease that can affect any cruciferous crop, and is of particular concern to canola yields in western Canada.

Symptoms: Yellowing, wilting, stunted growth, premature ripening, and shriveled seeds in later infected fields are all signs of a possible clubroot infection. The presence of the nutrient sink galls on the roots are the signature sign of the fungus. Symptoms will vary depending upon the stage the crop is infected at.

What is the big deal?

Similar to sclerotinia, half of the percentage of infected plants in the field can correlate to percentage of yield loss from the fungus. Studies have shown that in fields that were nearly totally infested (100% affected), there was about a 50% yield loss. Similarly in fields with 10-20% infestation levels there was a yield loss of 5-10% (Alberta Ag and Forestry, 2015). Because of soil being a primary vector for the disease to spread, there is a much greater risk of infection to healthy soils from machinery and vehicles, as well as wind and water erosion that could move infected soils around contaminating areas dozens of miles from the source site.

What can be done about it?

There are many factors of soil health that can leave a field susceptible to infection and best management practices can help to minimize the risk.

Fields that are susceptible to infection:
-acidic soil
-poorly drained soils
-irrigated fields (if overwatered)

How do you find it?

Under the Agricultural Pest Act- the Agricultural Fieldmen, in conjunction with Alberta Agriculture and Forestry, conduct random field inspections each year looking for signs and symptoms of the disease. Any symptomatic finds are sampled, and sent to a lab to be tested. If you find any suspicious galls on any plants please don't hesitate to contact your local Ag Fieldman at your nearest district office for further assistance and information!

Decayed clubroot galls
Photo by Kelly Turkington

While there have been no positive clubroot fields found in the Special Areas to date (other than a false positive found in Special Areas 3 that was confirmed NOT to be caused by a clubroot pathogen, and instead was caused by a chance genetic mutation) its confirmation in neighboring municipalities requires us to be extra vigilant in preventing its establishment in the area.

More Information
Talk to your local Ag Fieldman!

Check out the Special Areas Clubroot Policy on our website:
https://specialareas.ab.ca/wp-content/uploads/2015/07/clubroot-policy-03-04.pdf

Alberta Clubroot Management Plan
http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex11519#best

Canola Council of Canada
www.clubroot.ca
310-FARM

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Let's talk clubroot cont'd

References

Alberta Agriculture and Forestry. 2015. Agri-facts 140/638-1. *Clubroot Disease of Canola and Mustard.* http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex8593/$file/140_638-1.pdf?OpenElement

Canola Council of Canada. *Canola Encyclopedia- Clubroot.* http://www.canolacouncil.org/canola-encyclopedia/diseases/clubroot/

Saskatchewan Ministry of Agriculture. *Clubroot of Canola- Factsheet.* http://publications.gov.sk.ca/documents/20/84066-b8a8a6e4-5098-4322-812b-f6f5a8e3cacf.pdf

Agriculture and Agri-Food Canada. 1999. *Clubroot of Crucifers- Control strategies.* http://publications.gc.ca/collections/Collection/A42-85-1999E.pdf

New Producer Grant Program

The Farm Health and Safety Producer Program offers financial support, subject to financial constraints, to eligible employers (must have waged, non-family workers and a WCB account) for eligible costs to improve health and safety in their operations and help them comply with the OH&S Code that takes effect on December 1, 2018. The program is now open and accepting applications.

For more information, visit:
- https://www1.agric.gov.ab.ca/general/progserv.nsf/all/pgmsrv482
- https://www.alberta.ca/farm-and-ranch-ohs.aspx

Your Agriculture Fieldmen

We offer support for programs including:

- Plant identification & noxious weed control
- Grazing management & strategies
- Pest management & controls
- Environmental Farm Plans
- Shelterbelt programs & planning
- Animal predation concerns
- Equipment rentals including RFID tag readers & pest traps
- Concerns related to *Soil Conservation Act, Weed Control Act, Agricultural Pest Act, Animal Health Act,* and other legislation.

*Marcia Raymond is filling in for Jesse Williams while she is on her maternity leave.

Special Area No. 2	Special Area No. 3	Special Area No. 4
Hanna District Office (403) 854-5625	Oyen District Office (403) 664-3618	Consort District Office (403) 575-3523

For more information, go to www.specialareas.ab.ca or visit us on our Facebook page and Twitter @SpecialAreas.

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Upcoming events in the Special Areas