

Overview of crop health issues and survey results in 2016

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FHB SURVEY

- County and Municipal District Fieldmen (AAAF)



BLACKLEG SURVEY

- Janette MacDonald and ARECA



SPONSORS

- ACIDF and GF2
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- ALBERTA AGRICULTURE
- AGRICULTURE AND AGRI-FOOD CANADA

OUTLINE

CANOLA DISEASE SURVEY RESULTS

- Stem rot
- Blackleg
- Clubroot



CEREAL DISEASE SURVEY RESULTS

- Leaf spots
- Fusarium head blight
- WSMV



PULSE DISEASE SURVEY RESULTS

- Mycosphaerella on pea
- Soybean diseases



OBSERVATIONS ON OTHER CROPS

CANOLA DISEASES



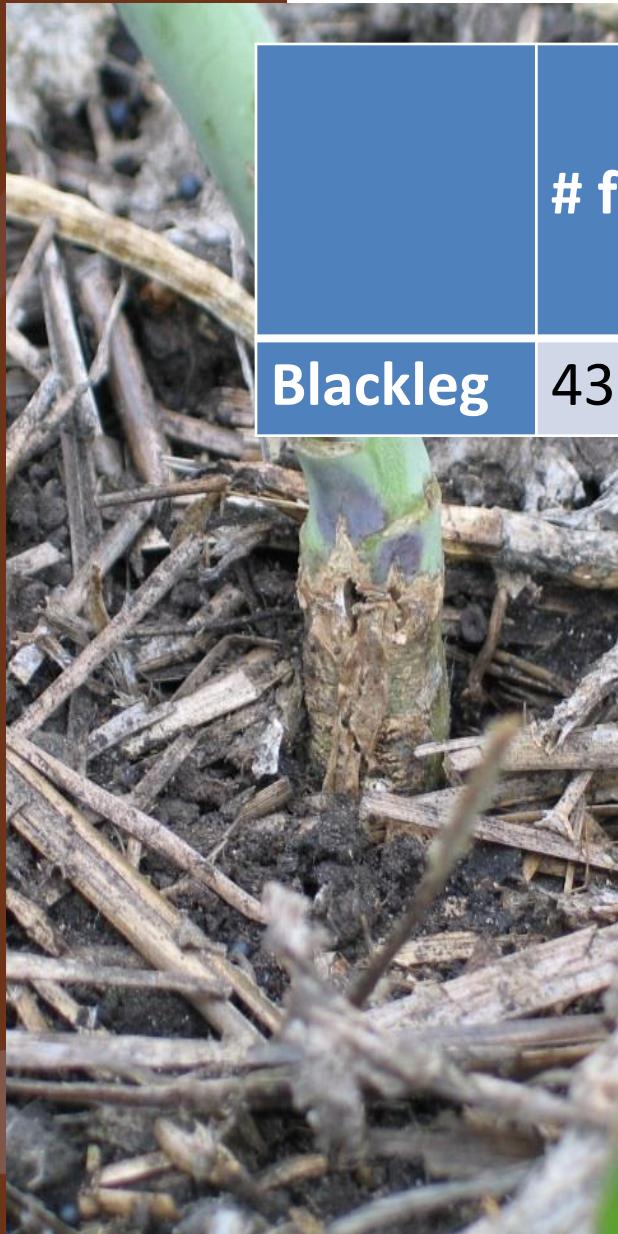
CANOLA: Stem rot



	# fields affected	Disease Prevalence (%)	Disease Incidence (%)	
			Mean ¹	Range
TOTAL or AVE.	252/311	81.0%	30.7%	0 - 100

If yield loss = $\frac{1}{2}$ of incidence, Alberta lost nearly \$½ billion

CANOLA: Blackleg



	# fields	Prevalence (%)	Incidence (%)	Severity (0-5)
Blackleg	432/480	90	21.2	0.42

Most prevalent disease on canola in 2016

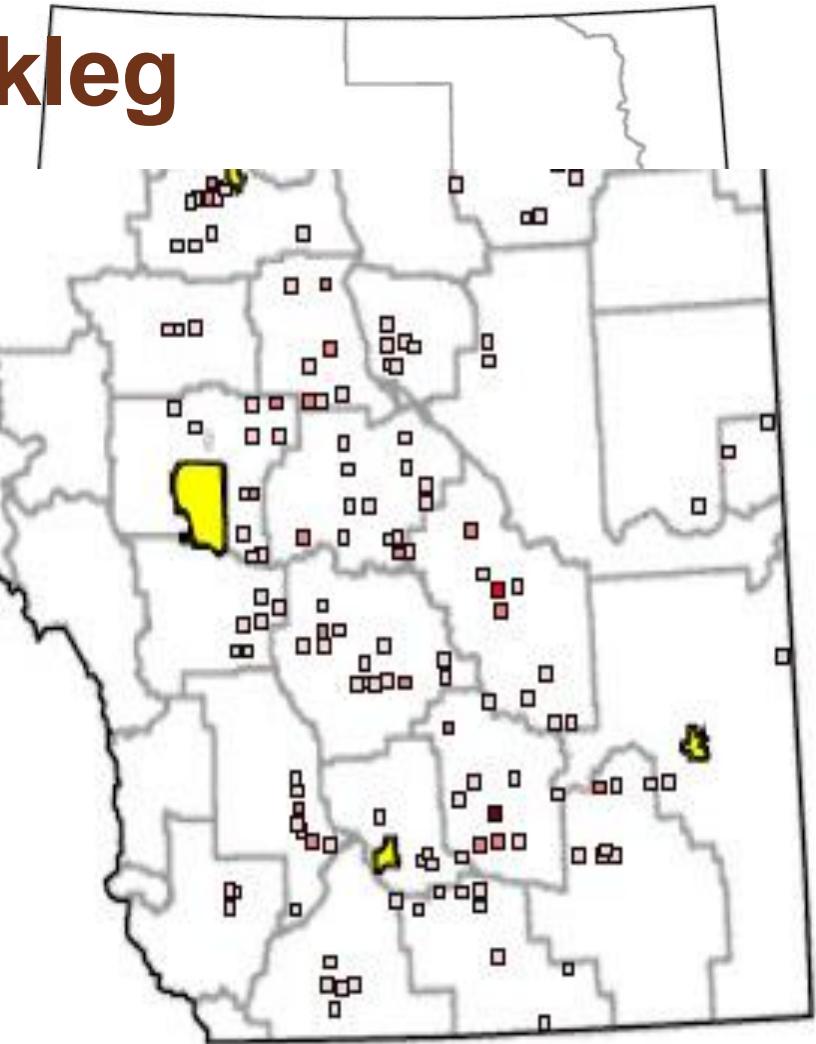
CANOLA: Blackleg



2016 Provincial
Blackleg Survey

Disease Severity
(0-5 scale)

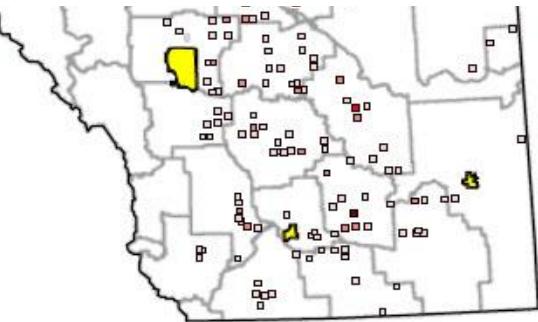
- 0.01 to 0.5
- 0.51 to 1.50
- 1.51 to 2.50
- > 2.50



2016 Provincial
Blackleg Survey

Disease Severity
(0-5 scale)

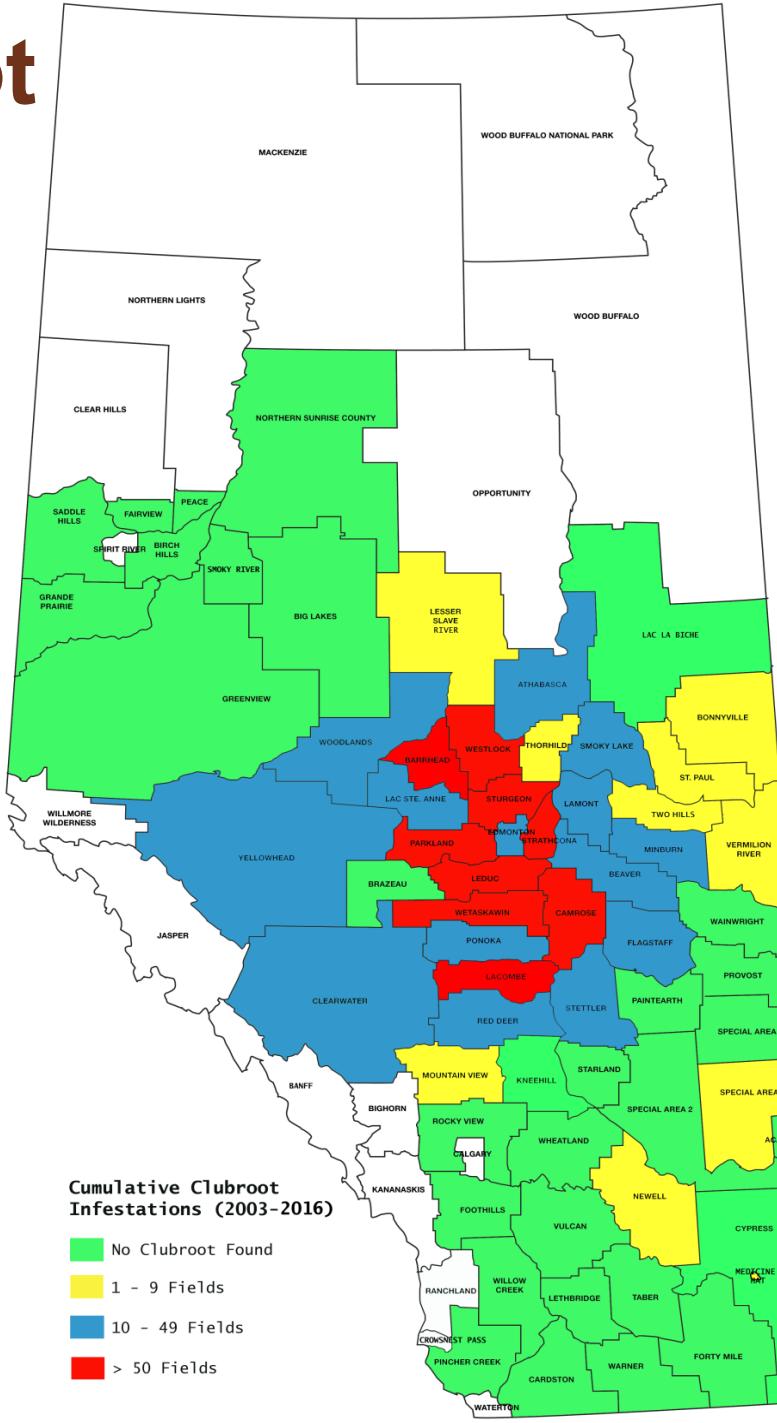
- 0.01 to 0.5
- 0.51 to 1.50
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- > 2.50



CANOLA: Clubroot



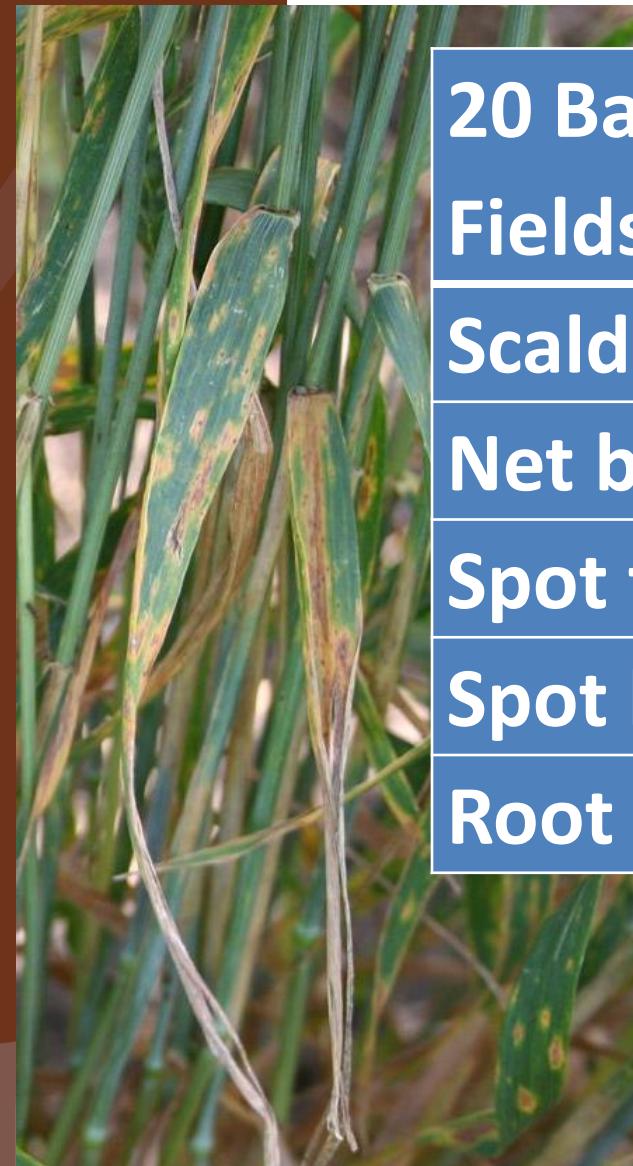
289 new records.....grand total =2443



CEREAL DISEASES



CEREALS: Leaf spots in barley



20 Barley Fields	Prevalence (%)	Severity (0-9)
Scald	40	3.75
Net blotch	40	2.75
Spot form NB	55	n.d.
Spot blotch	50	n.d.
Root rot	100%	Trace/ Moderate

CEREALS: Leaf spots in wheat



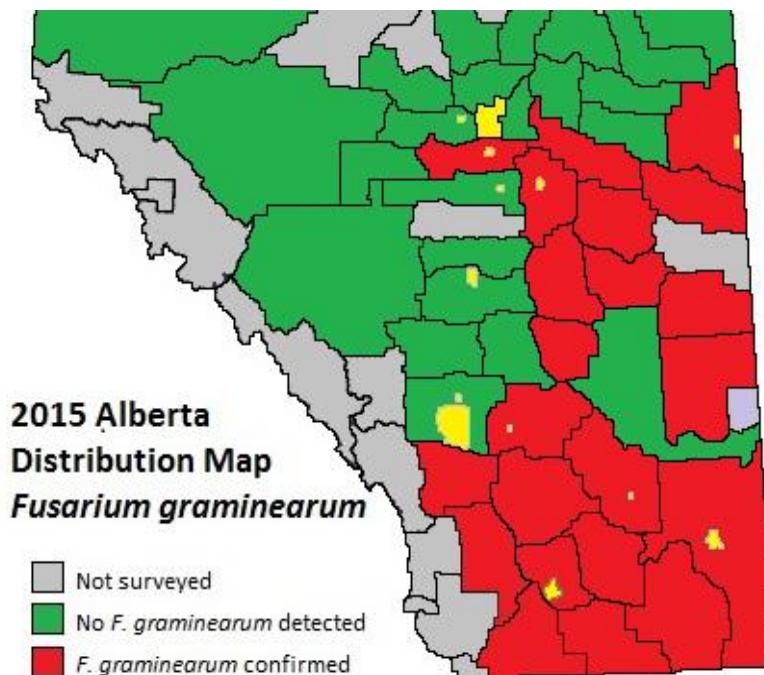
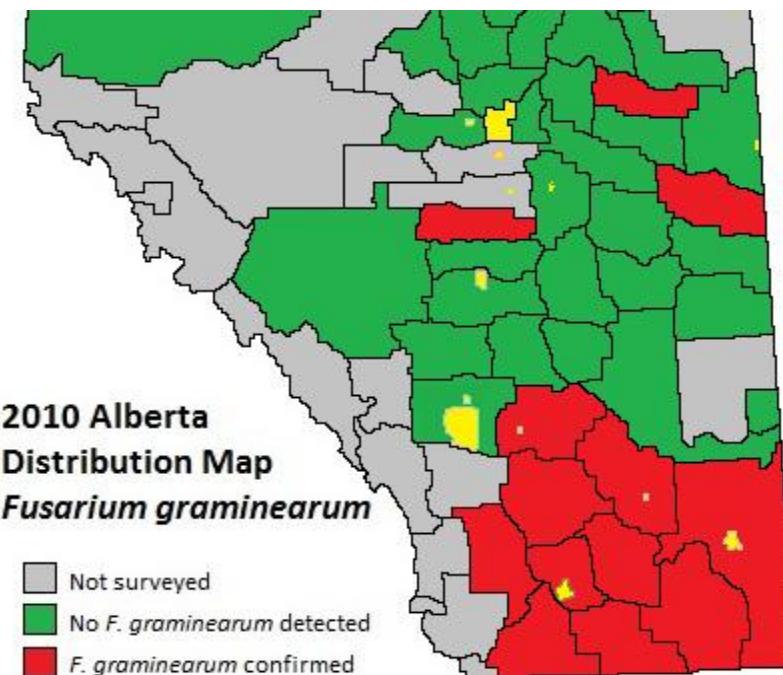
39 wheat fields	Prevalence (%)	Severity (0-9)
Leaf spot	39	5
Stripe rust		

CEREALS: Fusarium head blight

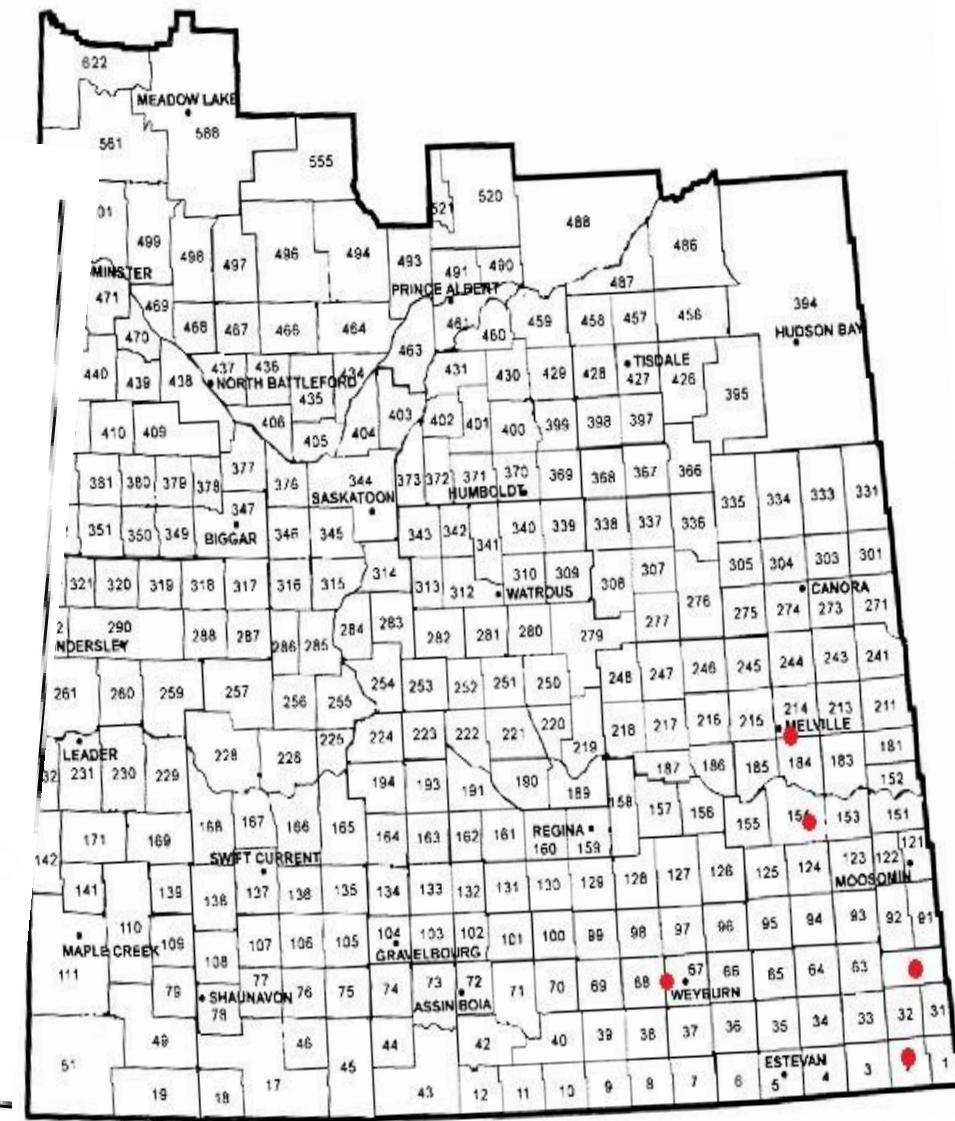


	2010	2015
# Counties positive	13	22
% Positive (Corn)	48.9%	71.4%
% 3-ADON (wheat)	9.0%	63.4%
% 3-ADON (corn)	12.1%	9.5%

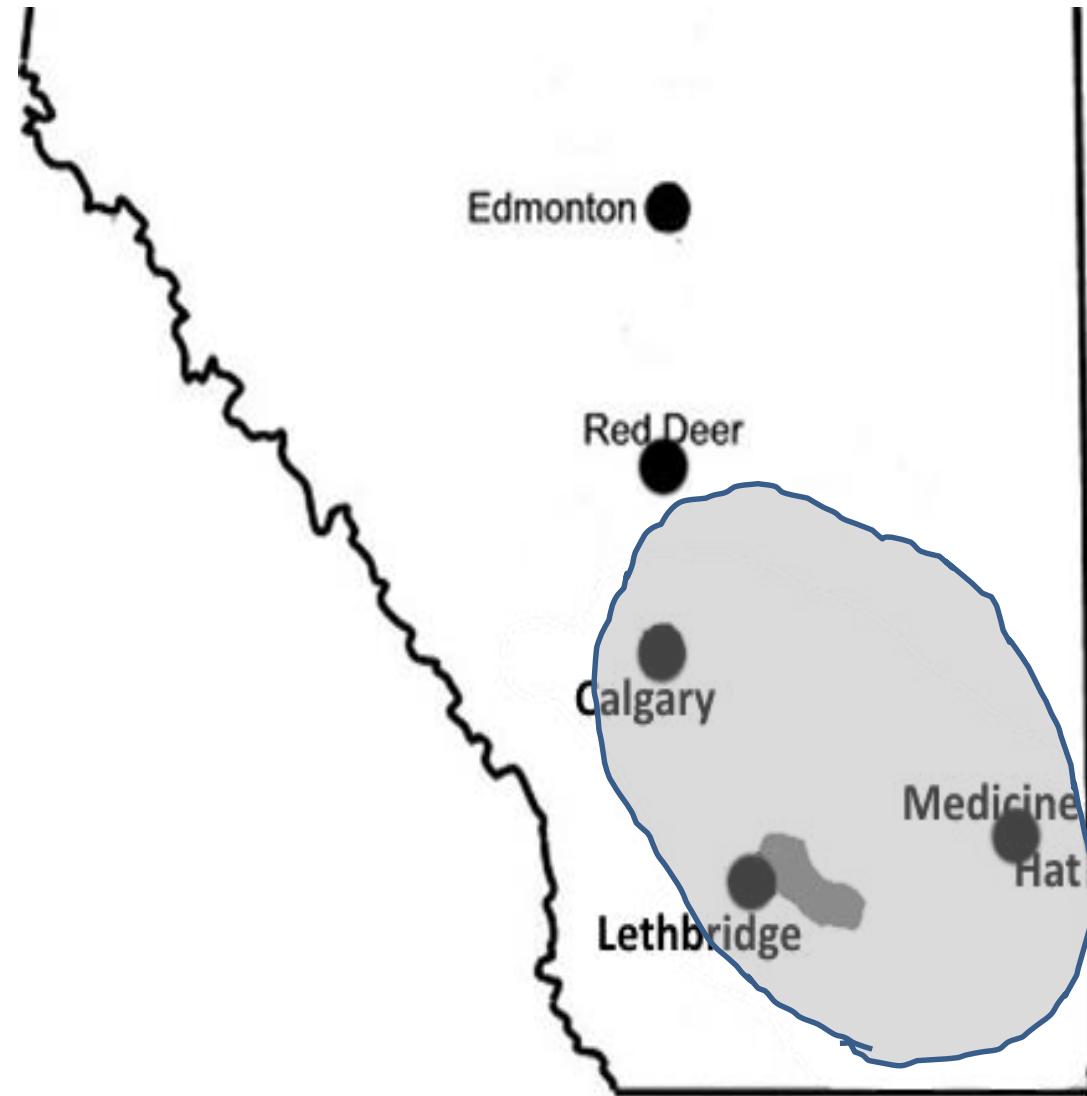
CEREALS: Fusarium head blight



CEREALS: Wheat streak mosaic



CEREALS: Wheat streak mosaic



CEREALS: Aster yellows



Year	#Samples	+ve	%
2016	18	6	33%
2015	4	2	50%

PEA DISEASES



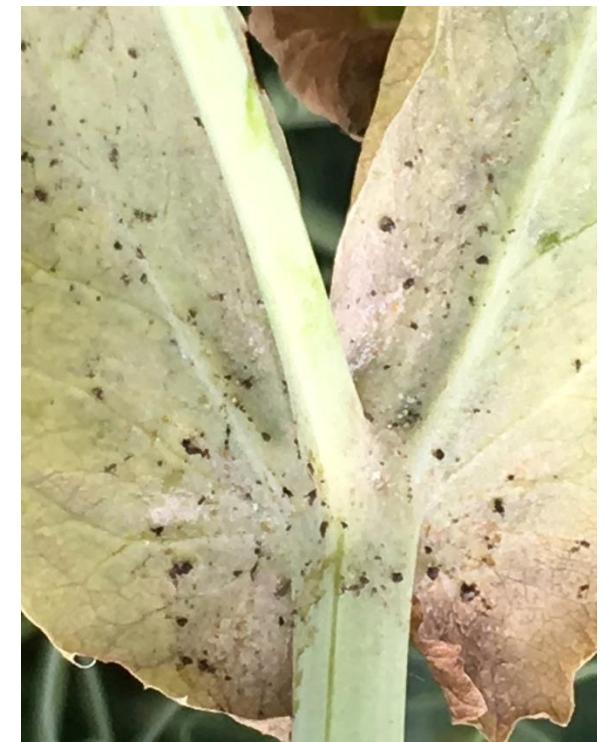
ROOT ROTS

PEAS: A. Blight and M. foot rot



157 Fields in Alberta	Prevalence (%)	Incidence (%)	Spread in canopy when present
west-central AB	63	38	1.1
east-central AB	58	38	1.2
southern AB	13	54	0.9
	45	43	1.1
Saskatchewan	72	91	1.6

PEAS: other diseases in 2016



SOYBEANS: Root rot, stem rot

Isolation (%)	Location	# fields	RR incidence (%)	RR severity (0-4)	Nodulation (0-4)	Sclerotinia incidence (%)
	Total*/ Average	29*	90	2.0	1.9	8.7



OTHER CROPS: dry bean

No. crops affected	Disease Prevalence (%)	Disease Incidence (%)	Disease Severity
26/26	100	60.8	1.2

