

INSECT SURVEY RESULTS - 2017

MINBURN

2017 SUMMARY

No cabbage seedpod weevil were found in your area. The population in central Alberta seems to have reduced and the range expansion has contracted, at least for this year.

With 5 bertha armyworm sites in Minburn County your area was well covered. None of the locations were above the first warning level of 300 moths. There were, however, hints of a build-up in the population. Trapping will continue to be very important to watch for a possible outbreaks in the future.

Wheat midge were found in all but one of the 7 fields we surveyed. Two of the fields were very high in midge larvae found and this represents a significant risk for 2018. A third field had a moderate number of midge larvae. Producers and agronomists should monitor fields in 2018 as the wheat heads out as there could potentially damaging midge pressure. The wheat midge pheromone traps are

used to determine the timing of midge activity and are not useful in threshold determinations.

There were two diamondback moth trap locations in Minburn county. These are used to monitor the spring migration of that insect. There was no concern with diamondback moth in your area in 2017.

Pea leaf weevil damage was very low in the survey we conducted in late May – early June. We are finding pea leaf weevil feeding throughout the county however. At this point I would not recommend the use of insecticide seed treatment for pea leaf weevil management.

We did 3 fields in your area in our survey for the new midge in canola. We did find the midge in one of the fields although the level of damage was very low. We inspect 100 racemes in each of the fields we survey. This level of damage is certainly not of any economic concern.

WHEAT MIDGE (WM) PHEROMONE TRAP

The pheromone trap system is an early indicator from producers to show when midge become active NOT for thresholds. The goal of this trapping program is to let producers and agronomists know when midge is active so they can be checking fields that are at risk for midge.

LLD	Trapping period	Date of first midge on trap	Peak date	Total midge caught
NE-20-51-13-W4	Jun 20-Aug 2	Jun 29	July 4	67.5
NE-8-50-9-W4	July 11-28	July 11	July 24	14
SE-28-52-14-W4	July 11-27	July 11	July 17	14

Sampling done by Alberta Agriculture and Forestry and Roger

PEA LEAF WEEVIL (PLW)

Experience has shown us that high numbers of pea leaf weevil adults in fall will likely mean significant infestation levels in the following spring. The timing and intensity of spring damage is strongly related to the onset of warm conditions (>20°C) for more than a few days in April or May. The earlier the weevils arrive in fields the higher yield loss potential. Extended cool weather delays weevil movement into the field. Yield impact is lower if the crop advances past the 6 node stage before the weevils arrive. The numbers represented here are generated from assessing feeding damage on 10 plants in 5 locations in a field.

LLD	Average node stage	Total notches	Average notches per plant
SW-9-51-11-W4	6.9	28	0.56
SW-16-50-9-W4	5.84	52	1.04
NW-26-50-13-W4	5.56	46	0.92
SW-27-53-15-W4	5	0	0
SE-23-52-9-W4	5	22	0.44

Sampling done by Alberta Agriculture and Forestry



WHEAT MIDGE (WM)

Wheat midge is an insect that increases in numbers in wet years. Numbers can vary drastically from field to field and we try to sample wheat adjacent to the previous years' wheat in order to pick up populations if they are present. There is no definitive way to know exactly the risk in any given field so field scouting when the wheat comes into head is critical. The numbers shown here give a general trend of midge populations. Individual fields will have a different risk.

These numbers are generated by taking soil samples from wheat fields after harvest using a standardized soil probe.

The risk level as shown on our maps is as follows:

- 0 midge will be displayed as light grey (No infestation)
- 2 or less midge will be shown as dark grey (<600/m²)
- 3 to 5 will be shown as yellow (600 to 1200/m²)
- 6 to 8 will be shown as orange (1200 to 1800/m²)
- 9 or more will be shown as red. (>1800/m²)

LLD	Total Midge	Viable	Not Viable	Parasitoid
N-8-49-8-W4	1	1	0	0
NE-8-50-9-W4	1	1	0	0
NE-23-52-9-W4	0	0	0	0
SE-29-51-11-W4	3	3	0	0
NE-20-51-13-W4	21	21	0	0
SE-28-52-14-W4	1	1	0	0
SW-3-54-15-W4	12	12	0	0

Soil samples were taken by Alberta Agriculture and Forestry.

WHEN DOING FIELD VISITS WE:

- never drive into the field
- sanitize our equipment between fields with bleach solution
- sanitize our footwear between fields with bleach solution or wear boot covers

LINK TO BOOK MARK:

[Alberta Pest Monitoring Network](#)

BERTHA ARMYWORM (BAW)

Firstly, thank you Roger and Darwin for all your help with this survey!

Bertha armyworm is very cyclical. In order to catch outbreaks and help producers minimize losses it is necessary to maintain a good monitoring system using pheromone traps. The number of moths caught in the traps informs us of the risk of damaging populations with a 3 to 5 week lead time. These numbers are generated from paired pheromone traps in individual fields, except in the Peace River region where only 1 trap is used to reduce impact on native pollinators.

Bertha armyworm populations are normally kept in check by such factors as weather and natural enemies. Potential damage may be more or less severe than suggested by the moth count data depending on weather and crop conditions and localized population dynamics. Research has clearly shown that very few fields are ever affected in an area with moth catches less than 300. Even at higher moth counts field scouting is critical for pest management decisions because experience has shown that field to field and even within field variations can be very large.

LLD	Trap average
NE-21-53-13-W4	84.5
NE-34-52-15-W4	84.5
NW-10-53-14-W4	88
NW-36-49-9-W4	144
SE-14-50-8-W4	148

Reporting period: June 18-July 29, 2017

If you have any questions or concerns, please do not hesitate to contact

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DIAMONDBACK MOTH (DBM)

Firstly, thank you Darwin and Roger for all your help with this survey

It is generally accepted that diamondback moth adults don't overwinter in the prairies and that most infestations occur when adult moths arrive on wind currents in the spring from the southern or western United States or northern Mexico. In mild winters there is suspicion that diamondback moth do overwinter in Alberta. To assess the population, a network of 37 monitoring sites has been established across the province. This network is meant to act as part of an early warning system for diamondback moth and should be used in conjunction with crop scouting.

LLD	Trap average
SW-13-52-11-W4	0
SW-30-51-14-W4	0.5

Reporting period: May 7-June 17, 2017

CONTARINIA MIDGE (NEW CANOLA MIDGE)

A team of surveyors surveyed 119 fields in 26 counties in central Alberta near the end of flowering (July 25 to 27). Midge were found in low numbers in 21 fields. Additionally flower damage consistent with midge damage was observed in a further 29 fields (total of 50 fields). Samples of midge larvae were collected from all positive fields. The survey delineation shows that midge were found mainly east of Edmonton with one field northwest of Edmonton in Sturgeon County and one field west of Highway 2 in Leduc County. East and north of Edmonton the midge was found as far as M.D. of Bonnyville. The south extent of the range appears to be approximately Highway 12 that runs through Stettler.

The buds were collected and brought back to the lab for confirmation of midge presence. All larvae collected were sent to Agriculture and Agri-Food Canada, Saskatoon for further study.

LLD	Larvae infested buds	Damaged buds
NE-24-50-9-W4	2	8
NW-25-51-13-W4	0	0
SE-25-52-9-W4	0	0

Sampling done by Alberta Agriculture and Forestry, Agriculture and Agri-Food Canada and Canola Council

Alberta Insect Pest
Monitoring Network



CABBAGE SEEDPOD WEEVIL (CSPW)

In southern Alberta, including all counties south of and touching Highway 1, the earliest flowering canola crops will be at the highest risk from cabbage seedpod weevil and should be monitored very closely.

Cabbage seedpod weevil overwinters as an adult so the risk of infestation is further indicated by the adult population of the preceding fall. Winter condition also appear to have an impact on populations with mild winter favoring build-up of populations and expansion of their range.

These numbers are generated from sweep net samples (180 degree sweeps).

We track the population of other insects in these sweeps as well. These go into long term data sets that will help us research their population trends over time. from individual fields.

LLD	Number of Sweep	CSPW	Lygus Nymph	Lygus Adult	Leafhopper	Flea beetle	Red turnip beetle	DBM larva	DBM adult
SE-3-51-11-W4	25	0	0	0	0	0	0	0	0
SE-2-53-15-W4	25	0	0	3	0	0	0	2	0
S-25-48-8-W4	25	0	0	0	0	0	0	0	0
SE-24-51-9-W4	25	0	0	1	0	0	0	1	2
NW-20-51-13-W4	25	0	0	3	0	0	0	0	5
SE-18-50-14-W4	25	0	0	0	0	0	0	0	0

Sampling done by Alberta Agriculture and Forestry