

INSECT SURVEY RESULTS – 2020 – NORTHERN LIGHTS

2020 Summary

This year there were 4 Bertha Armyworm sites in Northern Lights, and all were well below the first warning level of 300 moths. It does appear that the Bertha outbreak in the Peace region is over, but trapping will continue to be very important to act as an early warning of possible bertha issues in the future.

There was one Diamondback moth trap site, but the moth catches were low.

Wheat midge was found in one of the five fields surveyed. Wheat midge risk is still low for 2021 but producers and agronomists should be aware that wheat midge does exist in your area and that it may have increased in the past year.

The cabbage seedpod weevil/ early flower insect survey for your area was conducted by Jennifer Otani. We do not have direct access to that survey. No cabbage seedpod weevil has been found in the Peace Region at this time.

BERTHA ARMYWORM (BAW)

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 a single pheromone trap in individual fields 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-9-91-22-W5	70
NW-10-95-21-W5	2

LLD	TRAP AVERAGE
SE-18-92-23-W5	21
SE-34-89-23-W5	38

DIAMONDBACK MOTH (DBM)

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 43 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
NW-34-90-23-W5	21

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)

LEGAL LAND DESCRIPTION					TOTAL MIDGE	VIABLE	NOT VIABLE	PARASITOID
n	16	94	22	5	0	0	0	0
s	29	88	21	5	0	0	0	0
nw	31	84	21	5	0	0	0	0
ne	24	90	23	5	5	5	0	0
s	20	92	23	5	0	0	0	0

Sampling done by Northern Peace Applied Research Association

WHEN DOING FIELD VISITS, INSPECTORS:

- never drove into the field
- sanitized equipment between fields with bleach solution
- sanitized footwear between fields with bleach solution or wear boot covers