

2019 Pulse Surveys

The Saskatchewan Ministry of Agriculture's (SMA) crop pest (insect and disease) surveys will begin shortly, which requires surveyors to enter into the fields. Crop pest surveys generally begin during mid-April and continue into the fall. Data gathered from these surveys is used to generate forecast and incidence maps, pest reports, and help us gain an understanding of pest distribution and associated crop damage. The results generated by these surveys are an important resource for producers to assess risk from various pests in a variety of crops. All survey personnel are required to follow strict biosecurity protocols to prevent the spread of crop pests. If you happen to see a surveyor in your field, please introduce yourself to them, they would be happy to discuss the surveys they are currently conducting and show you what they are finding.

SMA will be involved in a large variety of pest surveys taking place in a number of crops this year. Below is an outline of pest surveys that will be occurring in pulse crops.

Insect Surveys

Pea Leaf Weevil Survey

The Pea Leaf Weevil (PLW) survey has begun. During this survey, the foliage of pea plants is evaluated for the distinctive notching that is caused by the feeding of adult PLW. Although the main damage of concern is caused by the larval stage of PLW feeding on the nodules of plants, the above-ground notching provides a good indication of the PLW population. The data collected from this survey is used to produce a severity map based on notching damage. This map gives an estimation of the level of plant damage and distribution of pea leaf weevils in Saskatchewan. You can view the [2018 Pea Leaf Weevil map](#) here.



Figure 1: Pea leaf weevil notching damage on field pea plant.

Source: Saskatchewan Ministry of Agriculture

Lygus Bug in Faba Bean

Lygus bugs are a pest of concern in faba beans as they cause significant damage to faba bean seeds which leads to downgrading. This survey aims to identify incidence and severity of Lygus in faba beans within Saskatchewan. During this survey, surveyors use sweep nets to sweep the canopy of faba bean fields. The contents of the sweep nets will be analyzed at the University of Saskatchewan to identify the species and quantity of Lygus bugs present within each sample.

Disease Surveys

Field Pea Disease

The general field pea disease survey is a new survey in Saskatchewan for 2019. This survey will look at both foliar and root diseases of field peas. Root rot diseases have been surveyed in the past but the foliar disease component of this survey is new. Information from this survey will be used to gain a better understanding of disease pressure, root rot complex prevalence, and types of foliar diseases present in Saskatchewan.



Figure 2: Mycosphaerella blight in field peas.

Source: Saskatchewan Ministry of Agriculture

Faba Bean Disease

The purpose of faba bean disease survey is to increase our understanding of the foliar diseases that affect faba bean crops in Saskatchewan. As part of this survey, samples will be collected to support ongoing research at the Agriculture and Agri-Food Canada (AAFC)-Lethbridge Research and Development Centre.



Figure 3: Leaf disease lesions on faba beans.

Source: Saskatchewan Ministry of Agriculture

Ascochyta Blight in Intercropped and Monocropped Chickpea

This survey will include both monocropped and intercropped chickpea fields. The purpose of this survey is to determine prevalence and severity of Ascochyta blight in Saskatchewan, as well as determining the prevalence of strobilurin resistant *Ascochyta rabiei*. Samples are collected and sent to the AAFC research station in Swift Current for further analysis and testing.



Figure 4: Ascochyta blight in chickpeas.
Source: Saskatchewan Ministry of Agriculture

Soybean Disease

This year, SMA will lead a general soybean disease survey. Since soybeans are a relatively new crop for Saskatchewan, there is a risk that disease pressure and the presence of new diseases will increase. This survey aims to monitor current and emerging diseases in order to guide research and keep producers informed.



Figure 5: Soybean plant with stem canker.
Source: Saskatchewan Ministry of Agriculture

Lentil Disease

The general lentil disease survey will continue this year. Much like the other disease surveys that have been discussed, this survey aims to monitor disease levels. Both foliar and root disease are assessed during this survey.



Figure 6: Anthracnose on lentils.
Source: Saskatchewan Ministry of Agriculture

Once the 2019 disease survey results have been reviewed and finalized, the disease situation reports will be published in the *Canadian Plant Disease Survey*, which contains a record of disease surveys conducted across Canada.

For further information on any of these surveys, or if you have a field that you would like to be included in any of these surveys, please contact Carter Peru at carter.peru@gov.sk.ca.

