



The annual pea leaf weevil (*Sitona lineatus* L.) survey was carried out in late May and early June, 2019. The survey was based on damage ratings in 262 fields from 59 municipalities.

In each field the total notches per plant are counted on 50 plants (10 plants in 5 locations near the field margin). The damage rating for a particular field is the average number of notches per plant. It is important to note that although this survey concentrates on adult damage, yield losses are caused by the larval damage to the nitrogen fixing root nodules.

The range of pea leaf weevil activity has expanded dramatically in central Alberta since 2013. **Note that this is not a forecast, it is a survey of the situation in the spring of 2019.**

For information about the pea leaf weevil and its life cycle, visit <https://www.alberta.ca/pea-leaf-weevil-overview.aspx>.

The level of pea leaf weevil feeding damage increased in the northwest portion of central Alberta and the population continues to be lower than normal in southern Alberta. The highest damage ratings were west of Edmonton with the population in southern Alberta still at levels that could cause concern into the 2020 crop year. Although numbers remain low in the Peace River region, pea leaf weevil is now established from southern Alberta through large areas of the Peace. There has also been a very noticeable increase of pea leaf weevil activity to the northeast of Edmonton although the numbers there are still mostly below economic levels. **Survey locations shown with black circles had no evidence of pea leaf weevil feeding on any of the plants assessed.**

While this is not a strict forecast, experience has shown us that activity levels greater than 9 notches per plant is sufficient to cause significant damage if conditions are favorable in the spring of 2019. This covers the irrigated and foothills area of southern Alberta and much of northwest central Alberta. For any producers in these higher areas in 2019 there is a risk of damaging levels of pea leaf weevil in 2020. Producers should use this information along with their own experience to plan control strategies such as seed treatment for the 2020 crop year. Research has shown that seed treatment is much more effective in reducing losses from pea leaf weevil than foliar treatments.

Since 2014 significant pea leaf weevil damage has been seen on faba beans in a much larger area than shown in this survey that is conducted on field peas. This insect causes as much or more damage on faba beans. The true economic damage of this insect on both peas and faba beans on the higher organic matter soils of central Alberta is not well understood but research has been initiated to work out these relationships.

Spring weather conditions have a very large impact on the timing and severity of pea leaf weevil damage. When warm conditions (>20° C) persist for more than a few days in late April or early May the weevils arrive in fields early. Early arrival corresponds to the potential for higher yield losses. In years where cool weather persists, the arrival of PLW can be much later and the resulting yield impact is lower especially when the crop advances past the 6 node stage before weevils arrive. In every case control decisions should be made on a field by field basis.

For life cycle information, visit <https://www.alberta.ca/pea-leaf-weevil.aspx>.

For additional information, visit <https://www.alberta.ca/pea-leaf-weevil-resources.aspx>.

Alberta Agriculture and Forestry staff completed the 2019 pea leaf weevil survey. Thank you to Janet Lepp, Alberta Agriculture and Forestry, for managing the data. Thank you to Kristen Guelly for your contribution to the survey. Thank you David Giffen, Agriculture and Agri-Food Canada, Saskatoon for building the map.

For more information on this insect and its management contact the Ag-Info Centre at 310-FARM (3276).