

Strategy to fight strawberry root weevils

The strawberry root weevil (SRW) and black vine weevil (BVW) are two destructive insects that can cause major damage to Quebec's strawberry plants and are an ever increasing cause for concern in regions where strawberry production is important. To counter these insects, Dr. Jacques Brodeur, Professor of Entomology at Université Laval, and Mylène Blais, graduate student, are currently conducting research to develop an integrated pest management strategy, in collaboration with the *Association des producteurs de fraises et de framboises du Québec* (APFFQ).

Currently, using chemicals against adult insects is the only suppression method and success is clearly below producers' expectations. "The adults feed on the strawberry leaves but the larvae cause the most crop damage," says Dr. Jacques Brodeur. "Buried in the soil, the larvae feed on the roots and slow the growth of the plants, eventually causing them to wither completely."

This research also seeks to establish the status (presence and degree of infestation) of the two insect species in Quebec's main strawberry-growing regions. It is observed that the SRW is more present than the BVW in this crop. Field observations of insect biology and behaviour will make it possible to maximize treatment effectiveness. They will identify the time and duration of the weevil emergence period and the time of day when the insects are the most active. Finally, this research will make it possible to determine the reaction of these destructive pests to an insecticide recently approved for apple crops. The active ingredient of this insecticide, *Spinosad*, comes from fermentation of bacteria naturally present in the soil.

For more information: Mylène Blais (418) 656-2518

Big battles for small fruit

Small fruit also has its share of predators. Projects supported by CDAQ are now under way to develop ways of controlling these crop pests while respecting the environment.



The strawberry root weevil

The kit is easy to use and the responses are visible to the naked eye. Horti-protection inc. has improved a Supplement Basal Medium (SBM) to make it selective for *Botrytis* so that it only reacts in its presence. Based on a sample taken in the field, the colour obtained makes it possible to determine whether *Botrytis cinerea* is present and whether or not a resistance phenomenon exists. "The greatest difficulty was to improve the basal medium in the laboratory to obtain the reaction only with grey-mold rot," says Johanne Caron, the project coordinator. "Currently, validation is being done in the field for small fruit. The next step will target greenhouse crops."

The kit will promote appropriate use of fungicides and allow producers and other stakeholders to continue fighting grey-mold rot while respecting the environment and the consumer.

For more information: Johanne Caron (418) 832-0546

We invite you to contact us for any question or comment on this column or the activities of the CDAQ

555 Roland-Therrien Blvd., Longueuil, Quebec, J4H 3Y9 - Telephone: (450) 679-0530 - Fax: (450) 463-5214

To refer to the list of financially supported projects, please visit the Council's website at: www.cdaq.qc.ca
Since its inception in 1996, the CDAQ administers the producers' share of provincial funds allocated by Agriculture and Agri-Food Canada (AAFC) under the Canadian Adaptation and Rural Development Fund (CARD).