PEST ALERT

Western Grape Rootworm (*Bromius obscurus*)

Adult Western grape rootworm beetle

Leaf damage on grape. Photo courtesy of Agriculture & Agri-Food Canada

In May 2008, beetles causing severe damage to Floribunda roses and grapes on the east side of Kelowna were identified by experts with the Insect Identification Service, Agriculture and Agri-Food Canada, as the Western grape rootworm, *Bromius obscurus*. Even though this pest is native to North America and has been reported previously from Vancouver Island, this appears to be the first record of serious damage by this insect in the Okanagan Valley. It is unclear if this is the result of a new invasion, favourable environmental conditions, or the introduction of a damaging biotype from another region. In Europe and California the western grape rootworm is a pest of grapes, and it could potentially become a problem for the B.C. grape industry. Grape growers and home gardeners, particularly in the Mission area of Kelowna, are asked to report any suspect western grape rootworm beetle damage to the B.C. Ministry of Agriculture offices.

- In the Okanagan and Similkameen Valley please report damage to Drs. Tom Lowery (Telephone: 250 404-3324, Email: loweryt@agr.gc.ca) and Susanna Acheampong (Telephone: 250 861-7230, Email: Susanna.Acheampong@gov.bc.ca).
- In the Fraser Valley, contact Tracy Hueppelsheuser (Telephone: 604 556-3031, Email: Tracy.Hueppelsheuser@gov.bc.ca)

Leaf damage on Floribunda roses

Severe damage on Floribunda roses

Distribution: Europe, North America

Hosts: grapes, fireweed, roses

Damage

Adults feed by cutting distinctive linear or slit-like holes on leaves; severely damaged leaves look like lace. Damage on roses leads to drying and death of leaves. On grapes, adults may feed on the bark of tender shoots, leaf petioles, and berries. Larvae feed on roots and can cause serious damage to roots.

Identification

Larvae: Full grown larvae are C-shaped white grubs, about 7 mm long, with yellowish brown head, brown or black mouth parts and three pairs of legs near the head.

Adults: Adults are about 4mm long, dark reddish brown with a black head. The body is covered with short gray hairs.

Life History

There is no information on the life history of this insect pest in BC. In California, larvae overwinter in the soil to a depth of 2 feet or more and in the spring they move to within a few inches of the surface to pupate. Adult beetles emerge in May and work their way to the surface of the soil. Many beetles are unsuccessful emerging through hard crusted soil. After emergence, adult beetles feed for several weeks, lay eggs in clusters on old wood in crevices underneath loose bark. Eggs hatch in 8 – 12 days and young larvae make their way to the ground, enter the soil and feed on the roots for the rest of the season. There is no information on the life cycle on roses.

Monitoring

Adult beetles feed on the upper surfaces of leaves and can feign death when disturbed therefore they have the tendency to fall off plants. On Floribunda roses their colour blends in very well with the leaves making them difficult to find. Look for slit-like feeding cuts made by adult beetles on leaves.

Control

There are currently no registered insecticides for the control of the western grape rootworm in BC. Beetles can be killed during the two week feeding period before they start laying eggs. On roses, home gardeners can use recommended products for the control of leaf beetles such as Rotenone dust.

References

1. Bournier, A. 1976. Grape Insects. Ann. Rev. Entomol. 22: 355 – 376.
2. Peacock W. 1992. Western Grape Rootworm. Pages 239-240 in: Grape Pest Management, 2nd edition. University of California Division of Agriculture and Natural Resources Publication 3343, Oakland, CA.
3. General Viticulture. A. J. Winkler, J. A. Cook, W. M. Kliewer, L. A. Lider. 1974. 2nd Edition

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