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## **Check Canola for Aphids and Diamondback Moth**

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I received reports of diamondback moth and green peach aphids infesting canola. With the timely rainfall we are experiencing, our thirsty crops should revive, so vigilance is needed to protect the canola from insect pests. I have already discussed diamondback moth management in a previous issue of Pest e-Alerts (Vol. 14, No. 12 ... Apr 3, 2015) so I will concentrate on aphid management.

There are three aphids that commonly infest canola: cabbage aphids, green peach aphids, and turnip aphids. Each is unique in appearance and typically has different habits on a canola plant.

Cabbage aphids (right) are small, 2.0-2.5 mm (1/12 inches) blue-gray aphids with short cornicles. They are usually covered with a powdery wax coating. They will feed on the underside of canola leaves and are often found clustering on the developing panicle. They can cause plant stunting and distortion of growth.





Turnip aphids (left) are gray-green with short swollen cornicles, and measure 1.6 - 2.2 mm (1/16 inches). Turnip aphids will infest canola throughout the year, but are particularly of concern during the winter. They feed underneath the leaves, but will also be found feeding on terminals.

Green peach aphids are pale green to yellow (and sometimes pink, see right) with long cornicles and antennae and measure 1/8 inch. Adults may be winged or wingless. They feed on more than 40 plant families, including canola! They are found in winter and spring underneath leaves. Their feeding can cause stunting, stop terminal growth, and defoliation. They can also transmit plant disease-causing viruses such as cauliflower mosaic and turnip mosaic viruses.

Two new products have been registered for aphid control, Beleaf<sup>®</sup> (FMC Corporation) and Transform<sup>®</sup> (Dow AgroSciences). Both products are effective on aphids, including the green peach aphid but they work very differently. Beleaf kills aphids by paralyzing their mouthparts, so they cannot feed and eventually die. Transform is a systemic insecticide that kills aphids fairly quickly. Beleaf does not have any restrictions on



application during bloom, whereas Transform can only be applied 3 days before bloom or after petal fall but probably has enough residual activity to maintain control through petal fall. Both products are relatively safe for beneficial arthropods, but our research shows that Beleaf is particularly benign because of its slow acting efficacy on aphids, which allows aphid-feeding beneficials to continue to eat them with little to no consequence on their biology.

Scout for aphids by looking on the underside of the leaves, and panicles. Although no researchbased thresholds have yet been determined, during bud-early bloom, we suggest treatment if 20% of the racemes are infested. Green peach aphids are notorious for developing resistance to insecticides, particularly pyrethroids, which are the primary registered insecticides for use in canola. Regardless of the application method it is advantageous to apply an insecticide with as high of spray volume as possible to increase coverage on the plants.

Review label restrictions for applications during bloom, as honeybees can be killed if exposed to several of the registered products. Current recommendations for control of aphids in canola are listed in CR-7667, Management of Insect and Mite Pests in Canola which can be obtained online at http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-3045/CR-667web2009.pdf.

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