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**Insecticide News** by C. Welty

Sweet corn is on the newly expanded label of Coragen, for control of corn earworm, European corn borer, fall armyworm, and beet armyworm. On sweet corn, the Coragen use rate is 3.5 to 5 fl oz per acre, with a 1-day pre-harvest interval, a 4-hour re-entry interval, and a limit of 4 applications per acre per crop. It is not a restricted-use pesticide. Coragen was first registered in May 2008 for use on cabbage, cucurbits, tomato, pepper, and lettuce. In Ohio we had a Section 18 emergency exemption that allowed use of Coragen on sweet corn in 2008, but we did not have this exemption in 2009. Coragen is a suspension concentrate with 1.67 lbs a.i. per gallon. Its a.i. is chlorantraniliprole and it is classified in group 28, the ryanodine receptor modulators. It is a good alternative to pyrethroids for corn earworm control. In our Ohio sweet corn trials in 2007–2009, we tested Coragen at both a 5 and 6.7 oz/acre rate and saw good control both when used alone and when used during silking in the first two sprays followed by Asana or Lannate in the last four sprays. Other crops on the new Coragen label are asparagus, beans, strawberry, and potato. Altacor, which has the same a.i. as in Coragen but for use mostly on fruit crops, also has expanded registrations; it is now allowed for use on canberries as well as many tropical and subtropical fruit including persimmons, figs, and pomegranates.

Potato growers in Ohio can use diazinon (Makhteshim Agan ♦s Diazinon AG500) this year, but our old 24c special local needs label that allowed this has been replaced by a new 24c label. The new label is number OH-070003 and is posted at: ♦ <http://pested.osu.edu/24C.htm>. The new label specifies that this product is for suppression of wireworms as well as for control of cutworms; the old label had specified control of wireworms. Other new alternatives for wireworm control on potatoes are Regent (fipronil) and Capture LFR, which is for application with liquid fertilizer.

Movento (spirotetramat) has been in limbo for the past few months. Its registration was suspended in January 2010 followed by a ♦final cancellation♦ in April 2010 after an environmental group challenged EPA that an irregularity in the registration process had occurred, specifically the omission of a public comment period. The current status is that the residue tolerance is still in place, and growers who have the product are allowed to use it according to the label, and distributors are allowed to sell any product that they already have, but the manufacturer (Bayer) is not allowed to sell new product to distributors until the product is re-registered. Bayer plans to re-register the product but a time frame for this process is not yet known. Movento was registered in September 2008 for use on tomato, pepper, eggplant, lettuces, parsley, spinach, cabbage, pome fruit, stone fruit, grapes, and tree nuts for control of whiteflies, phylloxera, psyllids, mealybugs, scales, aphids, thrips, and other sucking pests. In Ohio we had a Section 18 emergency exemption in 2009 for use of Movento on dry bulb onions for thrips control. Movento is a true systemic that moves both from treated foliage down to roots, or from treated roots up to foliage.

**Swede midge alert for cabbage and greens** by C. Welty

For the past few years, we have been concerned about the possible arrival in Ohio of a new pest, the swede midge. This is a pest of cabbage and other heading and leafy Brassica vegetable crops as well as canola. Through a cooperative effort by ODA, OARDC, and OSU Extension, we ran traps in Ohio for the adult stage of this pest in 2008 and 2009. No positive samples were found in the traps in 2008, but we have recently gotten confirmation that one positive sample was found in Ohio, from Ottawa County between 13 and 29 July 2009. We had traps at 6 farms in Seneca, Sandusky, and Ottawa Counties from late May until mid August. We examined the sticky panels under a microscope and sent 15 suspicious samples to the expert swede midge identifier at Cornell University, where a PCR analysis was used to confirm the species identification.

The damaging life stage of the swede midge is the larva, which is a small maggot that damages the growing point of the plants (Figure 1). Feeding by larvae causes various types of deformed growth such as multiple stems, swollen or crinkled young leaves, and brown scarring. Damage is often confused with frost damage, nutritional deficiencies, or response to stress, but the presence of a maggot in the growing point is the best indicator that damage is due to swede midge.

Some history: Swede midge is a long-known pest in Europe where it is a pest of various Brassica crops including rutabagas, which are commonly called swedes. The pest was discovered in Ontario in 2000, but it had probably been present there since 1996. It was also found in Quebec. First detection in the USA was in 2004 in western New York State. It has since been found in Massachusetts, New Jersey, Connecticut, and Vermont.

The adult swede midge is a tiny fly (1.5 to 2 mm) that looks somewhat like a miniature mosquito (Figure 2). The adults emerge in May and lay eggs on plants. Larvae burrow into the growing point of the plant. Larvae are yellow, legless maggots (Figure 3) that are about 0.3 mm long when they emerge from the eggs, and they reach a length of 3 to 4 mm when fully grown. They drop to the soil for the pupal stage. A generation takes 21–44 days, and there are 3–4 generations per year in Ontario. They overwinter in the soil as pupae. The adults are weak fliers but can be carried in wind currents. A pheromone trap can be used to monitor the adult stage of swede midge in sticky traps, but correct identification of the midge in the trap is quite challenging due to their tiny size and similarity to several other species.

We are lucky that some very helpful work on monitoring and management has been done in Ontario, Quebec, and New York during the past few years. In western New York, although there were many positive trap captures, not many infested plants have been found. Research is showing that crop rotation between Brassica and non-Brassica crops is effective for managing this pest. Rotation is most effective if in a 3-year cycle with at least 1 km distance between fields. Effort must be made to eliminate wild mustard, shepherd ♦s-purse, and other Brassica weeds during the rotation. Growers should avoid using transplants that originate from infested areas. Cultural control by tillage can destroy pupae in the soil. Control of the pest by insecticides has been most effective when acetamiprid (Assail) has targeted young larvae or when lambda-cyhalothrin (Warrior) has targeted adults. Scouting for damage by swede midge is critical for management. Young plants, especially those on border rows, should be examined to see if the growing point looks normal or distorted, and for brown corky scarring. A good fact sheet on swede midge from Cornell is posted on the internet at: <http://www.nysipm.cornell.edu/factsheets/vegetables/cruc/sm.pdf>

