Cranberry Fruitworm

Life Cycle: Cranberry fruitworm has one generation a year. It overwinters as a fully-grown larva within a cocoon made of silk and soil particles (hibernaculum). Pupation occurs during the early spring and moths begin to emerge during the second-third weeks of May. Male moths emerge 3-4 days earlier than females. Adults are brownish gray with a pair of white markings on each forewing (see Picture 1). The eggs are pale-green, flat, and are laid singly, along the inside rim of the calyx cup. Eggs hatch in 5-7 days and the newly emerged larva is pale yellowish-green. Upon hatching, larvae bore into the fruit usually near the junction of stem and berry. The larva remains inside a fruit until its content is consumed, and then it moves to another fruit. A larva may feed on as many as 5-8 berries. Cranberry fruitworm infestations can be recognized by the presence of webbings filled with excrement in berries (see Picture 2). Infested fruit prematurely drop.

Picture 1. Adult cranberry fruitworm (Photo by Z. Szendrei)

Scouting and Control: Time of treatment can be established based on data from pheromone traps. The number of males caught in the traps provides information on the presence and distribution of cranberry fruitworm within a field. Traps are usually placed at the wooded borders of fields, where pressure tends to be high. Growers with a history of high fruitworm populations should especially be aware of the importance of monitoring. In addition, eggs may be scouted for after early fruit set. Larval infestation is difficult to detect early in the season, but as larvae grow, the increasing numbers of fruits affected and frass produced provide a clear indication of infestation.

Picture 2. Cranberry fruitworm damage to developing fruit (Photo by Z. Szendrei)

Cranberry fruitworm can be controlled by registered insecticides. Either one or two applications may be needed, depending on the population level. If trap counts are high, then an early application of an insect growth regulator (Intrepid, Confirm, or Esteem) may be used when the first eggs start to hatch. In New Jersey this may be just prior to the peak flight. This would be followed by a second application soon after bloom. Post-bloom applications with broad spectrum materials (such as Danitol, Asana, Mustang Max, or Imidan), or with newer softer materials such as Assail, Altacor, Avaunt, or Delegate can be done 7-10 days following the first application and after bees are removed. If trap counts indicate a lower population, then a single insecticide

application may be made post-bloom. Broad spectrum insecticides are harmful to beneficial insects, and can only be applied after the removal of honeybee hives.