Rose Hiskes, Diagnostician and Horticulturist
Katherine Dugas, Entomology Assistant
Department of Entomology
The Connecticut Agricultural Experiment Station
123 Huntington Street, P. O. Box 1106
New Haven, CT 06504

Phone: (203) 974-8600
Fax: (203) 974-8502
Email: Rose.Hiskes@ct.gov; Katherine.Dugas@ct.gov
Website: www.ct.gov/caes

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EUROPEAN GRAPE VINE MOTH (*Lobesia botrana*)

http://www2.nrm.se/en/svenska_fjarilar/l/lobesia_botrana.html

Also called the grape berry moth (not to be confused with *Eupoecilia ambiguella*, the European grape berry moth), this moth is primarily a pest of grape, but has also been found on blackberry, currants, cherry, plums, and carnations. It is native to Italy, but found throughout Europe, the Mediterranean, the Middle East, and in parts of Africa and Asia. A significant portion of the continental United States, including Connecticut, is suitable for its establishment. It was first detected in the United States in Napa County, California vineyards in 2009.

Flat, tiny eggs are laid singly instead of in clusters. Newly hatched larvae are about 0.04 inch long but grow up to 0.5 inch by the fifth and final instar. There are three generations a year in Califorina's climate; two in more temperate zones. The first generation larvae feed on flowers, the second on forming berries, and the third generation on mature berries. All three generations cause damage, however feeding in the third generation is the most destructive, as feeding exposes the grapes to rot and fungi. Secondary arthropod pests may also be attracted to damaged fruit.

Pupae overwinter in silk cocoons hidden underneath vine bark or in cracks of nearby trellis posts. Adults emerge once air temperature remains above 50˚F for 10-12 days. Adult moths are 0.3 inch long with a 0.5 inch wingspan. Females are slightly larger than males. Their wings have a mosaic-pattern with intermixed tan, cream, gray, brown, and black blotches.

Monitoring methods for European grape vine moth include female sex pheromone traps to determine the presence of flying males. Control is generally aimed at the second generation, as the first generation has a more prolonged emergence. General control practices for tortricid moths have been recommended, including insect growth regulators, spinosyns, and the insecticidal bacteria *Bacillus thuringiensis*. Parasitoids and predators also have been cited in

European literature as an effective natural control method, especially against overwintering pupae.

Information Sources:
Grape berry moth, *Lobesia botrana*
(Lepidoptera: Tortricidae)
http://www.invasive.org/browse/subinfo.cfm?sub=4986

Third generation larva feeding on mature grape.

Overwintering pupa.