

## Control of the European Grapevine Moth *Lobesia botrana* in Greece by the Mating Disruption Technique: A Three-Year Survey

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During 1996-1998 mating disruption trials were conducted on all three generations of the grapevine moth *Lobesia botrana* Den. et Schiff. (Lep., Tortricidae) in a 25-ha vineyard situated at Spata, Attiki, Greece. Shortly before the beginning of the first flight period ampoule-type pheromone dispensers were set up lining a 6.5-ha rectangular plot. Around the dispenser zone a protection belt was created where *Bacillus thuringiensis* (*Bt*) and selective insecticides were applied against the second and third generation larvae. The protection belt was 35 m wide and covered 3.5 ha. The rest of the vineyard was divided into the reference plot – where conventional insecticide treatments were implemented to control both carpophagous pest generations, and the untreated control plot – which measured 1 ha. Male catches within the dispenser zone were virtually zero. Nevertheless, no difference was apparent between the percentage of mated females from within and outside of the dispenser zone. Attractant was released from the dispensers throughout the season at a rather constant rate, but by the middle of the third flight period dispensers were found to be almost empty. During the 3 years of the survey pest pressure was often at exceptionally high levels. The effectiveness of the mating disruption technique (MDT) was found to vary with year and pest generation. MDT was used against the first (anthophagous) generation with rather poor results. In the following carpophagous generations results were comparable to control measures with insecticides used and sometimes slightly better. The density of the pest population in the pheromone-treated vineyard as compared with the untreated control, was reduced on average by 67% in the second and by 57% in the third generation. MDT therefore did not accomplish sufficient crop protection.

KEY WORDS: Grapevine; *Lobesia botrana*; pheromone dispenser; trap; mating disruption.

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