

PHEROMONE-BASED STRATEGIES IN THE MANAGEMENT OF THE RECENT INTRODUCTION OF *LOBESIA BOTRANA* IN CALIFORNIA

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Following the first detection of *Lobesia botrana*, European grapevine moth (EGVM), in North America (October 2009 – Napa County, California), sex pheromone-baited traps were deployed to determine the extent of the infestation. In 2010, traps were deployed at densities of 6 to 10 traps per km² in commercial vineyards throughout California and at 2 traps per km² in select urban areas. From 2011 onward, detection trapping inside the quarantine area was 10 traps per km² in both commercial vineyards and urban areas. In March 2010, a state interior quarantine was established encompassing areas within an 8 km radius in which EGVM had been detected to date. The original quarantine area was 420 km² increasing to 5,416 km² by the end of 2010 and 6,045 km² by 2011. These quarantine areas included 9,281, 52,600 and 58,664 vineyard ha, respectively. In 2011, portions of 10 counties were under quarantine. At the end of 2011, 4 counties met deregulation requirements and the regulated areas in the remaining 6 counties were reduced from 8 to 5 km buffer around sites of any EGVM finds, reducing the total area under regulation to 3,372 km², which included 38,377 vineyard ha. By the end of 2012, 5 more counties met deregulation requirements further decreasing the regulated area to 1,779 km², which includes approximately 21,452 vineyard ha. In 2010, 100,831 moths were caught in Napa County and 128 moths in 9 other counties. In 2011, 113 moths were caught in Napa County and 33 moths in 4 other counties. In 2012, 77 moths were caught only in Napa County. Mating disruption was an integral part of the management and eradication strategy in conjunction with insecticides (cultivated areas) and flower/fruit removal (non-cultivated areas).