

BIOLOGICAL CONTROL METHODS FOR PEST MANAGEMENT IN VINEYARDS

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Abstract

Global consumption of organic wine continues to grow despite recent years of crisis and consequently, more and more grape growers are keen to adopt organic vine production. Vines are a crop which characterise the European landscape, where wine itself is a fundamental element of the European lifestyle. The organic viticulture is an integrated system with the end product reflecting the environmental conditions and traditional processing practices.

The pest control together with the canopy, soil, weeds and disease management are the main aspects of the organic viticulture which maximise the quality and health of the grapes. The vineyard establishment interval is considered to extend from the initiation of pre-planting activities through the several years after planting. The predominant pests of concern and specifically managed are grape phylloxera, grape mealybugs, nematodes, oak root fungus, and weeds. In all European vine growing areas, there are present these grape moths: the European grapevine moth, the vine moth, the vine bud moth. These insects can cause damage to flower organs and to grape bunches during the larval stages.

In some cases, pesticides are the only alternative in controlling pests, using a minimum amount of water mixed with a considerable amount of chemical for preparing a concentrated sprayer. In contrast to this, the refinement of monitoring techniques for these pests with the help of pheromone traps has allowed the establishment of precise and efficient direct control methods. In this investigation, will be treated the biological control methods for organic grape production, including the use of the sex pheromones on moths.

Keywords: Global consumption, environmental factor, organic grape, pest control, sex pheromone