

Project Title : Organic Growing of Seedless Sultana Grape Variety

Start /End Date : 2003-2008

Supporting Body : GDAR

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Summary : The trial was conducted in a vineyard of Manisa Viticulture Research Institute between 2003 and 2007. The vineyard was planted with Sultana seedless variety on its own roots and trained as "Big T" in 1993. The experiment was conducted as randomized blocks design with two treatments (organic and conventional comparison) in 2003 and 2004. Having completed in-transition process in organic plots, it was expected that the effects of the zeolite+organic fertilizers+different soil cultivation methods and different ways of leaf removal together with sulfur or baking soda (sodium bicarbonate) against Powdery mildew on the key pest, secondary insect pests and beneficials could be measured in the vineyard since 2005. In trial plots, timing of applications against European grapevine moth (*Lobesia botrana* Den.-Schiff.), the key pest, was decided according to Forecasting System, whereas the applications against secondary pests was decided by taking economical threshold levels into account. Preparations, which are allowed in the Turkish Regulation of Organic Agriculture by Ministry of Agriculture, have been applied. Any important effect of different applications from soil and leaf was not generally determined on infestation rate of *L. botrana*, population densities of thrips, grape leafhoppers, two spotted spidermites and predatory mites. However, zeolite and organic plant fertilizers should not be preferred due to slightly increasing on population and damage of Grape erineum mite if the pest problem is common in any organic vineyard. Although a statistical difference could not be determined in every year of the study, preferring sulfur instead of baking soda could be suppressive on Grape leafhoppers and phytophagous spidermites that any successful solution has not been put into practice in organic viticulture yet. The parasitism rates of *L. botrana* were found as 50, 0 and 0% in organic and 71,43, 17,86 and 33,3% in conventional in 2003, 2004 and 2005, respectively. No parasitoid has been found in the samples collected in 2006 and 2007.