

Project Title : Research on Use of Low Volume Spraying Machines in Vineyard

Start /End Date : 1997-2000

Supporting Body : GDAR

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Summary : To be able to make an efficient chemical application through the use of less dosages than registered one, Knapsack sprayer (M1) and spinning disc sprayer (M3) have been compared in terms of their biological effectiveness in the vineyards of Manisa Province in Aegean Region between the years of 1997 and 2000. Meanwhile recycle ration of tunnel type sprayer was determined; to collect the pesticide quantity sprayed on on-target area. Phosalone (350 g/l a.i.)(1997-1998) and Quinalphos (250 g/l a.i.)(1999-2000), which are present in the Technical Instruction Book of Integrated Grape Pest Management, has been used as test insecticide against the target pest, *Lobesia botrana* (Den.-Schiff.). Concentration of the insecticide was calculated as 0,125% for M1 and 0,27% for M3 sprayer. Preparation applied to unit area was determined as 132 ml/da for M1 and 44 ml/da for M3. Time consumption was 0,12 h/da for M3 sprayer. As a result, spinning disc sprayer was found as effective as knapsack sprayer at a dose of 1/3 under normal conditions. Recycle ratio of M4 tunnel type sprayer was determined as 5,89% in the vineyard.