

Project Title : The Determination of The Weed Species in Organic Vineyards of Conventional and Analytics with of The Aegean Region Alternative Methods in Management

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Supporting Body : GDAR (General Directorate of Agricultural Research and Policy)

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Summary : Vine cultivation has been faced with damage sourced from different kinds of weeds during its vegetation period in our country. Although vine cultivation is done in wide areas and grape is so much valuable fruit, economical income is being low. There is a big share of diseases, pests and weeds besides, most of all, leisurely progression into modern vine cultivation and higher price of employment within the reasons for this case. As a result, the directly yield losses resulted from weeds in vineyards has been accounted by 10.1% (Cramer, 1967). Furthermore, the major damage caused by weeds is growth inhibition on vine by uptaking of nutrients through the soil, leading to yield losses. Particularly, weeds uptakes soil-water necessary for vine, to generate 1kg dry matter, 600 L. water is necessary (Oraman 1959). Weed leads to great loss in competition with vine in the world where water strait is of a living problem having started. Higher uptake of N, P, K by some weeds than vine, particularly in *Cirsium arvense* (Farkhadi, 1968) and an inhibition on growth through root secretions by *Sonchus arvensis* have been determined (Racz and Siaba, 1971). In the meantime the weed results in both difficulties in maintenance, harvest and become host for different diseases. In recent years weed management is within the precautions that should be considered in preventions to minimize water losses in ascending production fields where water straits being faced with. Weed control by chemicals is used in vine production as much as in other crops in our country. Implementations are not sufficient level desired since there are limited registered chemicals to be used in weed control in vine. Reducing the negative effects to the minimum level and sensibility of vines to herbicides renders alternative control measurements to indispensable. In this frame, there is no study on use of cover-sheet plants and mulching materials in our country.

In this study, implementation possibility of some cover plants such as *Hordeum vulgare* L. (arpa), *Vicia* spp. and some organic mulch (plant residues, sawdust) in weed control of vine will be investigated. Reducing in cultivation cost has been aimed to a succesfull measurement within methods to be tested by comparison herbicide treatments, mulching, and hoeing in view of economical aspect including enviromental friendly herbicide applications.