

Project Title : Studies on Determination and Control of *Orobanche* spp. Which Is a Problem on Potato in Ödemiş District

Start /End Date : 2003-2007

Supporting Body : GDAR

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Summary : This study was carried out in order to determine of *Orobanche* spp. posing seriously problem in Bozdağ (Ödemiş) district and its control. *O.ramosa* ve *O.aegyptiaca* was determined as species which are problem on potato growing fields. This is also first report for Turkey, which describes presence of *Orobanche* spp that determined on potato cultivars. The experiments were conducted within 2004 and 2005 in order to investigate the affect of organic fertilizers (chicken manure (2 ton/da), organic manure (3 ton/da), olive pulp (3 or 2 ton/da)) on *Orobanche* spp. emergence in fields. Olive pulp was the most efficient one by 3 ton/da dose that is among tested applications. It resulted in an affect by 89.3% it nevertheless led to seriously deformation on tubers that these results were obtained with experiments carried out in 2004. Therefore the dose of olive pulp was reduced to 2 ton/da dose in experiments done in 2005. The dose efficacious was also 53.94 %. Experiments conducted in order to investigation of the some herbicides affects on *Orobanche* spp. were done within 2005 and 2006. Imazapic applied by 35 ve 50 cc/da dose showed effect by 97.92% and glyphosate applied by 15 cc/da dose resulted in 66.75% control at the end of experiments that conducted in 2005. Although Imazapic showed high efficiency, it led to deformation on tubers. Application dose of imazapic were reduced to 5 cc/da (2 application) and 10 cc/da (2 application) due to phytotoxicity that observed on tubers. Glyphosate by 15 cc/da dose resulted in efficiently inhibition reaching 92% control, whereas the control ratio of imazapic by 5 cc/da dose was 92% and by 58.34, 10 cc/da dose it was 83.42 % in the experiments done in 2006.