

**Project Title** : Broomrape Control with Organic Amendments in Tomato fields in Western Turkey

**Start /End Date** : 2006-2010

**Supporting Body** : TÜBİTAK 106G074

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**Summary** : Tomato is the most produced and consumed vegetables in Turkey. Tomato and tomato products are important exporting goods as well. One of main problem in tomato production is broomrapes (*Phelipanche* spp. (syn. *Orobanche* spp.)). There have been methods already applied to control broomrape such as chemicals, organic amendmnts, pulling etc. However, none of methods assure broomrape control satisfactorily. Lack of very efficient control methods in tomato to control broomrape has caused increases in broomrape problems as well as economic losses. The broomrape problem in tomato fields in Turkey. Especially proposed tomato production in Marmara and Aegean Region, has expanded and become severe. Separate experiences with herbicide and organic amendments were conducted to find out the most efficient materials to use in further research with combined control methods. Experiments were set in tomato fields naturally infested with broomrape in Çanakkale Province where is located in South of Marmara Parts of Turkey in 2008 and 2009. Organic materials experiment included manures such as humic acid,, chicken manure pellets, cow manure pellets, humic acid pellets, cover crops (vetch 240 kg/ha<sup>-1</sup>), wheat (360 kg/ ha<sup>-1</sup>) and olive processing waste. The data of two years were pooled, and underwent statistical analysis. The number of broomrape shoots was significantly different between treatments and check in early cutting, but it will was not statistically different at later stages. Tomato yield was significantly different and it was affected by year. Chicken manure caused the highest yield.