Evidences of weeds and their integrated control in olive groves of Albania

***Bujar HUQI, PhD** ****Endrit KULLAJ, PhD** ****Shpend SHAHINI, PhD**

Institute of Plant Protection, Durres, Albania;* * Agriculture University of Tirana, Department of Horticulture & Plant Protection*

Abstract

A three-year study was carried out in Vlore, Albania, the most important olive production are in the country, with the objective to identify the main weed species infesting olive groves and the efficiency of different integrated control methods.

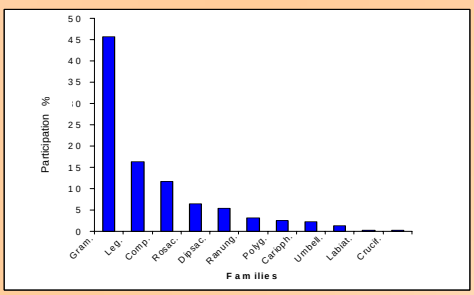
Introduction

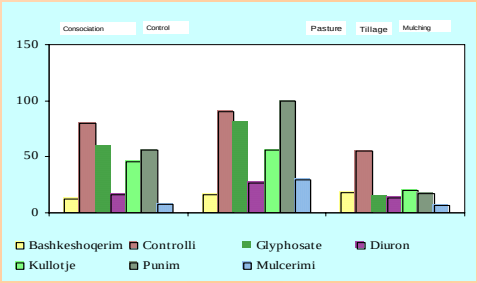
Olive groves in Albania are heavily infested with weeds affecting the yields of this crop of vital importance for the rural economies of the areas of cultivation. There is no research being carried out so far in Albania regarding the relative damage of each weed species to olive crops as well as their integrated control methods and the efficiency of the latest. On this basis, the authors carried out a three-year study (2000 – 2002) with the main objectives to monitor weed species and measure the efficiency of different control methods.

Materials and Methods

The **first experiment** consisted in weed monitoring for identification purposes and was carried out every month, starting from May in an area of 100 ha with olive groves. On the basis of pedo-climatic conditions, aspect and altitude, this surface was divided into 5 sub-areas. In each sub-area, monitoring and measurements were carried out in random in 5 trees, using squares of 50x50 cm out of which the plant material was taken for determination purposes.

The **second experiment**, tested several control methods in 2 sites with 7 variants: (i) planting with leguminous plants and rye (ii) control (iii) treatment with non-selective systemic herbicide (iv) treatment with systemic herbicide (v) pasturing of livestock (vi) tillage and (vii) mulching. Each variant was repeated 5 times (5 trees with about 245m2 in total).





Conclusions

This three-year study resulted that the main weeds infesting the area of Shamogjin, Vlore belong to the botanical families of Graminacea (Poaceae), Leguminaceae, Compositaceae, Rosace-ae, Dispaceae and Ranunculaceae. Less common were the species of Caryophyllaceae, Umbelliferae, Gerzniacea and Lina-ceae, while the species of families Labiateae, Cruciferae and other families constituted a small proportion of the total plan coverage in the olive groves of this area. It is also found that due to the diverse mechanical and chemical composition of soils in different reliefs and altitudes, there exist a diversity of weeds in the 5 sub-areas monitored.

Olive groves heavily parasitized with weeds could only
be adequately controlled through chemicals while less infected ones were controlled with the use of mulching
and cultivation with other crops.

References:

Clyde, L Elmore. 1994. Weed management in olives. p.91-97

Demiri, M. Bimet e egra te demshme dhe te dobishme ne vendin tone

Dhima, K. 2003. Weeds and herbicides. Tirane,

Eberbach, L. P. 1993. The effects of herbicides and fungicides on legume-rgizobium symbiosis. In J. Altman (ed.). Pesticide Interections in Crop production. Beneficial and deleterious effects. Colorado State University Fort Collins,