

International Conference on

## ENVIRONMENTAL MICROBIOLOGY AND MICROBIAL ECOLOGY

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International Conference on

## ECOLOGY AND ECOSYSTEMS

September 18-20, 2017 Toronto, Canada

**Effect of different weed management practices on growth and yield of brinjal (*Solanum melongena* L.)****Sumeet Singh, Kulbir Singh, D S Khurana and V Sardana**  
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In an experiment conducted at vegetable research farm, PAU Ludhiana in 2012-13, a study was conducted to evaluate the effect of integrated weed management in brinjal cv. BH-6747. The experiment was conducted both in nursery and in field crop. Nine different weed control treatments were used in nursery experiment which included solarization (30 days before sowing), pendimethalin 0.225 kg a.i./ha, pendimethalin 0.300 kg a.i./ha, oxyfloufen 0.120 kg a.i./ha, oxyflourfen 0.175 kg a.i./ha, trifluralin 0.240 kg a.i./ha, trifluralin 0.300 kg a.i./ha along with weed free and un-weeded plot. Pendimethalin and oxyflourfen were used as pre-emergence and trifluralin was used as pre-plant herbicide. Minimum dry weight was recorded in chemical treated plots of oxyfloufen 0.175 kg a.i./ha as compared to rest of treatments which indicated maximum weed control in nursery. In field experiment fifteen different weed control treatments were used which included black plastic mulch, herbicides and manual weeding. Pendimethalin 0.75 a.i.kg/ha, pendimethalin 0.56 a.i.kg/ha alone and then pendimethalin 0.56 a.i.kg/ha integrated with hand weeding (45 DAT) and then with directed spray of gramaxone 1.0 a.i.kg/ha (45 DAT) was used. Similarly, it was used with oxyflourfen 0.15 a.i.kg/ha and with trifluralin 0.60 a.i.kg/ha. Minimum dry weight was achieved in black polythene mulch followed by oxyflourfen integrated with hand weeding. Other attributes like plant height, number of branches, fruit weight, fruit girth and length and total yield were superior in black mulch treatment followed by oxyflourfen integrated with hand weeding. Maximum gross return was in black mulch followed by oxyflourfen 0.15 a.i.kg/ha+hand weeding (45 DAT). It is thus concluded from the present investigation oxyflourfen 0.175 kg a.i./ha can be used in the nursery of brinjal while oxyfloufen 0.15 kg a.i./ha followed by hand weeding after 45 days after transplanting can be recommended in brinjal crop to get maximum benefit.

**Biography**

Sumeet Singh is currently a Ph.D scholar of Vegetable Science at Punjab Agricultural University and has completed his Master's and Bachelor's from Punjab Agricultural University, Ludhiana, India. He is engaged with one of the pioneer research work of Vegetable grafting in Punjab and has achieved merit fellowship.

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