

ABSTRACT

Vegetable crops of family Solanaceae constitute major economical and important crops in Khartoum state. Although vegetable crops production gains especial priority unfortunately these crops were highly susceptible to major pests mainly Broomrape (*Orobanche ramosa* L.), which causes serious yield losses to tomato, potato and eggplant.

The experiments were conducted at Shamabat Research Station of Agricultural Research Corporation. With the objectives of studying the effect of the parasitic flowering plant (*Orobanche*) on tomato, potato and eggplant)

Results on reactions of *Orobanche ramosa* L. to major crops indicated that the *Orobanche ramosa* L. infestation reached 100% on (Potato, Tomato and Eggplant). The mean numbers of *Orobanche* /plant were 5, 2 and 1 on potato, tomato and eggplant respectively. The mean numbers of *Orobanche* shoots/ plant were 5, 1 and 3 on tomato, potato and eggplant respectively. The mean number of *Orobanche* fruits /plant reached 68 on potato, 72 on tomato and 60/ on eggplant. Mean fresh weight and dry weight of *Orobanche* on potato crops reached 95.5 & 31.9 gm, 72 & 15.8, gm on tomato, and on eggplant it was 19.4 & 5.2 gm respectively. Mean fresh weight of infested potato crop decreased by 14.3% compared to uninfested crops, mean dry weight of infested potato crop decreased by 9.47% compared to un infested crop, mean fresh and dry weight of infested tomato crop decreased by 24% & 4.4% respectively, also mean fresh weight and dry weight of infested eggplant decreased by 23.02% & 16.28% compared to the control. (significantly effect)

From results of this study it was clear that, these crops are major hosts to *Orobanche ramosa* L. Production of potato, tomato and eggplant may face serious yield losses due to infestation by *Orobanche ramosa* L. This indicated that these crops are exposed to high risk due to *Orobanche ramosa* L . invasion.