International Journal of Plant Sciences, **Vol. 3 No. 2 : 636-638 (July, 2008)**

Structure of weeds in *rabi* and *kharif* vegetable crops

J.S. TRIPATHI* AND DEVESH TRIPATHI
Department of Genetics and Plant Breeding, Narendra Deva University of Agriculture and Technology, Kumarganj, FAIZABAD (U.P.) INDIA

(Accepted : July, 2008)

SUMMARY

All the major vegetable crops of *rabi* and *kharif* season were surveyed to record the composition of different weeds of Faizabad district. *Chenopodium album*, *Anagallis arvensis*, *Melilotus indica*, *Vicia sativa* and *Cyperus rotundus* were major weeds of brinjal, tomato, cauliflower, garlic, cabbage, potato, chilli and spinach crop of *rabi* season. *Echinochloa colona*, *Echinochloa crusgalli*, *Cyperus rotundus*, *Lindernia celia*, *Phyllanthus niruri*, *Mollugo lotoides*, *Aneilema nudiflora*, *Digitaria adscendens*, *Euphorbia hirta*, and *Commelina bengalensis* were major weeds of lady's finger, cowpea, bottle gourd, smooth gourd, cucumber, tomato and chilli crop of *kharif* season.

Key words : Antifungal, *Fusarium solani*, Plant extracts and inhibition.

Limited inter-culture operation permits the weeds to grow profusely in different crops during different season. For implementation of weed control programme it is imperative to have adequate knowledge of different weed flora and its population. Tripathi and Tripathi (2001) worked out the structure of weeds in *rabi* cereal and oil seed crops in eastern U.P. Paradkar *et al.* (1989) worked out the flora of *kharif* weeds in Rewa division of Madhya Pradesh. Information about weed flora of *rabi* and *kharif* vegetable crops grown in Faizabad (U.P.) are meagre. Therefore, it was decided to conduct the survey of weed flora of the said district to record the types and population of weeds of vegetable crops during the year 2005.

MATERIALS AND METHODS

The survey was done along with the jeep able roads at every 10 km distance on either side of the road. The locations were selected hundred meters away from the road to over come the effects of roads and trees on natural infestations of weeds in the crops. During survey if a location at the required distance happened to be a town, village, school or public building the observations were recorded at some reasonable adjoining location.

A quadrate of 50cm x 50cm size was used to count the weed species in the crop sown field. Quadrate was taken at random in a field at four place to record the weed population per unit area. Density, relative density and frequency were calculated by method suggested by Mishra (1973).

$$\text{Density} = \frac{\text{Total number of individuals}}{\text{Total number of quadrate studied}}$$

$$\text{Relative density} = \frac{\text{Number of individuals of species}}{\text{Total number of individuals of all species}} \times 100$$

$$\text{Frequency percentage} = \frac{\text{Quadrate of occurrence}}{\text{Quadrate studied}} \times 100$$

RESULTS AND DISCUSSION

Density, relative density and relative frequency of weeds recorded in *rabi* and *kharif* vegetable crops are presented in the Tables. Results of the survey revealed that vegetable crops of *rabi* season were infested with *Anagallis arvensis, Vicia sativa, Chenopodium album, Launea asplenifolia, Melilotus indica* and *Cyperus rotundus* (Table 1).

Vegetable crops of *kharif* season were infested with *Echinochloa colona, Echinochloa crusgalli, Cyperus rotundus, Lindernia celia, Phyllanthus nisuri, Mollugo lotoides, Aneilema nudiflora, Digitaria adscendens, Euphorbia hirta* and *Commelina bengalensis* (Table 2).

* Author for correspondence.