

## Area wide implementation of integrated pest management in India for cauliflower cultivated in rainy season

Desh Bandhu Ahuja, RV Singh, MN Bhat and Saroj Singh

National Centre for Integrated Pest Management, India

Cauliflower occupies fifth position in total production of 133.74 million tonnes of vegetables in India. Due to genetic advancement and improvement in production system, cauliflower can be cultivated throughout the years which were earlier confined to winter season only. It has resulted in quantum jump in earnings of farmers, but has also attracted a large variety of pests that are potential threat to its cultivation. In order to sustain its production farmers resort to 10-12 applications of pesticides over a period of four months to prevent the damage due to the potential pests such as *Spodoptera litura*, *Helicoverpa undalis*, *Pythium* sp and *Alternaria brassicae* and *A. brassicola* in the rainy season from month of June to November. To address the problem of over use of pesticides and restore sustainable cultivation of cauliflower, integrated pest management technology comprising soil solarisation, raised bed method of developing nursery, application of *Trichoderma harzianum* to soil through FYM, pest monitoring through sex pheromone trapping, scouting of pest damage, collection of egg masses of *S. litura*, plucking of pests infested leaves, need based application of reduced risk pesticides and monitoring of insecticide resistance in *S.litura* was developed and validated and popularize in farmers participatory mode for state of Haryana and Rajasthan of India. The implementation of IPM technology envisaged higher economic returns, lower pest incidence and cost of plant protection and higher natural enemies' population. It can also be implemented in other states of India having similar pattern of cauliflower cultivation with similar pest problems.

### Biography

D.B.Ahuja has completed his Ph.D at the age of 27 years from Indian Agricultural Research Institute, New Delhi in year 1983 and joined as Asstt Professor in Rajasthan Agricultural University, Bikaner. After serving the university for 23 years, he joined National Centre for Integrated Pest Management, New Delhi as Principal Scientist and is working on integrated management of pests of horticultural crops both vegetables and fruits since 2005. He is also undertaking teaching of post graduate courses in toxicology and pests management in horticultural crops for both PH. D and M.Sc. students.

deshbandhu4@rediffmail.com