

2nd International Conference on **Agricultural & Horticultural Sciences**

Radisson Blu Plaza Hotel, Hyderabad, India February 03-05, 2014

Management of pests cabbage through trap cropping with Chinese cabbage

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Cabbage (*Brassica oleracea* var. *capitata*) is one of the important cole crops grown in Andhra Pradesh. Pest incidence is the major constraint in attaining higher yields. The major insect pests which cause maximum yield loss in cabbage are diamond back moth, (*Plutella xylostella*), leaf webber, (*Crocidolomia binotalis*) and cabbage aphid, (*Brevicoryne brassicae*). To control the pests attacking cabbage, farmers relied on pesticides as the major crop protection strategy. This, in turn has contributed to insecticide resistance, insecticide residues in harvested produce and impact on human health. To reduce the use of pesticides, environment friendly methods like trap cropping is being developed. Present studies were conducted to evaluate the potentiality of Chinese cabbage as trap crop for the pests of cabbage.

The effect of trap crop namely Chinese cabbage on the control of pests of cabbage and the seasonal incidence of pests were studied during 2009-2012 and 2011-12 respectively. Treatment with Chinese cabbage as trap crop recorded significantly lowest per cent head damage (9.32%) with higher yields (336 q/ha). Activity of *Diaretiella rapae* was observed with highest percent parasitisation of 67.53 on cabbage where as parasitisation percent was very poor (1.4%) on Chinese cabbage. Seasonal incidence studies revealed that the *Hellula undalis*, *Spodoptera litura*, *Brevicorne brassicae* and *Crocidolomia binotalis* were the dominant pests on cabbage. The major pest, *Plutella xylostella* did not appear on the cabbage transplanted during the month of November where as its population appeared on the crop transplanted during the month of January and its population started increasing during February and March. In case of Chinese cabbage, metallic beetles (*Phyllotreta cruciferae*), whitefly, aphids (*Brevicoryne brassicae*) and mustard sawfly (*Athalia lugens proxima*) appeared during early stage of the crop, where as leaf webber population (*C. binotalis*) reached peak towards the maturity. In the present study mustard and Chinese cabbage were compared for their potentiality to attract pests on cabbage.

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