



Evaluation of Crude Plant Extracts and Biopesticides for Eco-friendly Management of Lepidopterous Insect Pests in Cabbage

S.D. Sharma and Ramesh Lal¹

CSK HPKV, HAREC, Bajaura, ¹KVK, Bajaura, Kullu-175 125, India
E-mail: sukhdevsharma40@gmail.com

Abstract: A field experiment was carried out during summer 2013 at Bajaura (Kullu) Himachal Pradesh to find the efficacy of different plant extracts and biopesticides against lepidopterous insect pests attacking cabbage crop. The results revealed that though the highest mortality (100%) of the lepidopterous caterpillars was recorded at 3 days after treatment (DAT) containing chemical pesticides (T₄) yet both the biopesticidal formulations viz. T₁ (*Melia* 5% formulation @ 5 ml/L) and T₃ (Neemban (0.15%) @ 5 ml/L and treatment with plant extract i.e. T₂ (extract of the mixture of leaves of 5 plants) were also equally effective resulting in 82.16, 82.23 and 80.00 per mortality of the larvae (early instars), respectively following first spray and 79.75, 75.62 and 75.94 per mortality after 3 days of the second spray. Data on the yield and yield attributing parameters of cabbage showed that the proportion of unmarketable heads of cabbage under respective treatments T₁, T₃ and T₂ was 7.87, 8.40 and 7.72 per cent as compared to 44.00 per cent in the control and the marketable yields recorded from these treatments were also significantly higher than the control and statistically at par with each other. i.e. 459.95, 439.15 and 462.95 q/ha as compared to 224.02 q/ha in the control. Yield loss under these treatments was 3.12, 3.50 and 2.72 per cent, respectively as compared to 35.14 per cent in the control.

Keywords: Plant extracts, Biopesticides, Lepidopterous insect pests, *Pieris brassicae*
