ABSTRACT

These investigations were carried out at Vegetable Research Centre, Haldi, G.B.P.U.A.&T., Pantnagar for screening of okra varieties against *Earias* spp., *Amrasca biguttula biguttula* (Ishida) and *Alcidodes affaber* (Aurivillius); and to test the bio-efficacy of some biorationals and new insecticides against *Earias* spp. and *A. biguttula biguttula* during 2002-2003 and 2003-2004. Thirty varieties were screened. The percentage shoot damage by *Earias* spp. was recorded in the range of 4.12 to 8.33 per cent. The lowest shoot damage was recorded in Pant Bhindi-1, while lowest fruit damage (15.47%) in KS-404.

However, population of jassids was lowest on HRB-55 (10.06 per leaf) in comparison to control PK (Pantnagar) which harboured 14.54 jassids per leaf in the year 2003. In the year 2004, trials were conducted to compare the performance of varieties under natural and treated conditions. EMS8-1 performed fairly good under both the conditions with average damaged fruits 10.18 and 10.42 per cent, respectively. Pusa Makhmali (11.99%), HRB9-2 (12.85%), VRO-4 (13.63%), VRO-5 (13.60%), Selection 10-1 (14.18%), Arka Anamika (14.18%), Varsha Upchar (14.57%) and 7-Dhari (14.92%) also performed better over control under untreated condition. Okra variety 2007 harboured highest jassid population under both the conditions (14.29 and 8.13 per leaf under untreated and treated conditions, respectively), however minimum was on DVO 91-4 among untreated plots and among treated ones PK (IVR), Pusa A-4 and AC -192 had only 1.71, 1.74 and 1.79 jassids per leaf, respectively.

Among the 11 insecticidal treatments, endosulfan 0.07% protected the fruits by 61.59% which was on par with emamectin benzoate 8.5 g a.i./ha, deltamethrin 0.0014%, Halt (2 g/l) and Proclaim 6.75 g a.i./ha.

Seed treatment with thiamethoxam followed by emamectin benzoate 5 g a.i./ha protected the crop 53.77 per cent against jassids in the year 2002-2003, while in 2003-2004 amongst 14 insecticidal treatments deltamethrin 0.0014% gave best protection against *E. vittella* in top growing shoots and it was on par with endosulfan 0.07%. Cow urine 10% was recorded as least effective with 22.98% damaged fruits, however, provided 47.89% protection against jassids.