DIVERSITY ANALYSIS & COMPETITION EFFECT INVESTIGATION (CEI) FOR FOOD SEARCH IN MAIZE PEST MANAGEMENT TO EXPLORE THE POTENTIAL BIOLOGICAL CONTROL AGENT.

MRITYUNJAY KUMAR SINHA1 AND M. MOHAN2
1Department of Zoology, Radhehari Govt. PG College, Kashipur, Uttarakhand
2Department of Zoology, Patna University, Patna-800 005

Received: 20.7.2013 Revised: 19 11 2013 Accepted: 21.12.2013

ABSTRACT
Indiscriminate use of pesticides for the past 40 years has almost eliminated natural enemies from many crop ecosystems. An experiment has been carried out in the field & laboratory to determine the diversity index to explore the effects of predators on prey in food searching in the stalk borer Chilo partellus (Swinhoe) pest management during 2004-2006. During the field collection it was experienced that in most of field the grubs of predators were present but the Diversity Index Value of Coccinella septempunctata was higher than the Chrysopa sps. The Chrysopa larvae were found 8-20% more effective and fast prey searching capacity than Coccinella species. On the basis of present findings it was suggested that Chrysopa sps. is a good competitors in Stalk borer pest management.

KEY WORDS: Biocontrol, maize crops

REFERENCES


Starks, K.J. (1969) East African Agriculture and Forestry Research Organisation, Serere Research Station, Uganda (Mimeo). pp