Effects of Various Host Plant Varities on Prey Searching Efficiency of *Cocinella septempunctata* (L.)

Muhammad RAHIM KHAN *   Muhammad ABDUL MATIN**
Muhammad RAFIQUE KHAN***

*Faculty of Agriculture, Department of Entomology, Rawalakot Azad Kashmir, PAKISTAN
**Planning Research and Development National Agricultural Research Center (NARC), Islamabad, PAKISTAN
***Faculty of Agriculture, Department of Entomology, Rawalakot Azad Kashmir, PAKISTAN

ABSTRACT

The prey searching rate of *Coccinella septempunctata* (L) was evaluated and expressed in terms of searching efficiency, efficacy, and average prey consumption. The morphological plant traits such as the presence, type, thickness of trichomes and the presence or absence of epidermal wax are important determinants of the predator's effectiveness**.** The plant surfaces upon which the predator search for prey can have favourable or adverse effects on their ability to find and capture prey. Three varities of host plants such as *B. campestris, B. juncea, B. oleracea* and one variety of wheat crop Margalla, 99 were selected on the basis of their morphological differences. How do the physical factors of host plant affect the efficiency of predator as biological control agents are furnished in the findings of the present study. The confiding factors caused by the plant traits are the predators walking speed, grooming of fore legs and mouthparts, resting and intermittent pause. However, these factors can also cause the changes in quantitative and qualitative attack rate (a2) which ultimately influence average prey consumption. The results of the present study can provide a guide line in the selection of crop varities when employing the coccinellid beetles as biological control agents.

*Key Words***:** *Coccinella septempunctata,* morphological features, plant architecture, trichome densities, protruding veins.

INTRODUCTION

The morphological structure of the host plant such as the presence of trichome densities, epidermal wax and leaf venation are the important factors that affect the