

Effects of insecticide and cutting on insect diversity of alfalfa

Liu Changzhong

Gansu Agricultural University, China

The biology of *Mylokerus* sp., was studied as heavy defoliators. The potential impact and biology of the pest is unknown this insect has been observed on numerous hosts in Asian distribution which suggests an extremely broad host range. Methods for rearing for *Mylokerus undecimpustulatus undatus* Marshall in laboratory conditions were developed to understand its biology. Adults were reared in the laboratory on host leaves. The ratio of female to male in a laboratory population was 2:3. Pre-ovipositional period for females varied from 3-4 days and 1-2 days after pairing. A single female laid 90-95% eggs in its life span. Egg viability per female was 100%. At room temperature eggs hatched in about 7-9 days, larval development to pupation on roots averaged the first, second, third and fourth instars occupied 9-10 days, 11- 16days, 17-22 days and 18-22 days respectively and the pupal period lasted approximately 23-33 days. Total developmental time from egg to adult ranged from 38-56 days, in certain cases total larval period extended up to 60-70 days. Four larval instars were observed, moulting occurred in every instar days. Finally, it is concluded that basic knowledge of the biology of *Mylokerus undecimpustulatus undatus* can be helpful in enhancing its population in lab, to date; no natural enemies or other control techniques have been explored. The results of the present studies like, complete biology and new rearing technique to improve the management of this emerging pest and it can be applied in fields for pest control as technique of Bio Control Management.

Biography

Changzhong Liu has completed his Ph.D. from Lanzhou University. He is a professor and the vice rector of College of Grassland Science. He has published more than 45 papers in reputed journals.

liuchzh@gsau.edu.cn