Anitha Gorthi et al., Agrotechnol 2014, 2:4
http://dx.doi.org/10.4172/2168-9881.S1.007

OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference on
Agricultural & Horticultural Sciences
Radisson Blu Plaza Hotel, Hyderabad, India February 03-05, 2014

Fluctuations in natural regulation of larvae of *Achaea janata* Linnaeus on castor by two hymenopteran larval parasitoids, *Snellenius maculipennis* (Szèpligeti), and *Euplectrus* Westwood as affected by weather parameters and host density in Hyderabad region of Andhra Pradesh

Anitha Gorthi, J. Vijay and S. J. Rahman
Acharya N. G. Ranga Agricultural University, India

Effective integrated pest management strategies of *Achaea janata* Linneaus on castor include conservation of its key natural enemies, two Hymenopteran larval parasitoids, *Snellenius maculipennis* (Szèpligeti) and *Euplectrus* Westwood. Information about weather and host related factors affecting these parasitoids in Mahboobnagar region, Andhra Pradesh, India is scant and hence, a survey was taken up in farmers' fields in *kharif* seasons of 2010-11 and 2011-12 to determine the degree of parasitisation of larvae of *A.janata* by *S.maculipennis* and *Euplectrus* and study their population dynamics as affected by weather parameters and host density. Two year observations revealed that *S.maculipennis* recorded a maximum of 78.9% parasitisation in the last week of August, while for *Euplectrus*, peak parasitisation of 35.5% was attained in the last week of September. Regression studies of larval parasitisation with weather and host density revealed that evening relative humidity, rainfall and host density had an extremely significant positive influence on parasitisation by *S. maculipennis*, while maximum temperature had significantly negative influence. Host density was the only factor which affected larval parasitisation by *Euplectrus* significantly and positively. Multiple regression equations were fitted for both the parasitoids and discussed.

anitha.gorthi@yahoo.com