Survey and Seasonal Fluctuation of Certain Pests Associated with Grapevine Trees at Assiut Region

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Abstract:

The present study was conducted through two successive seasons of (2007-2009) at Fac. Agric. Exptl. Farm. Assiut Univ. to survey Arthropods associated with three grapevine varieties (Mus-cat, Thompson seedless and Az-merly) and study the seasonal fluctuations of the most abundant and economically injurious pests: black vine thrips, Retithrips syriacus Mayet and European red mite, Panonychus ulmi Koch. Data of the survey study revealed the presence of 20 insect species belonging to 20 genera under 14 families of 8 orders. Moreover, mite species was represented by three species belonging to three genera under two families of two orders. Intensive and extensive observations indicated that the collected insect and mite species can be classified according to their economic importance as pests included 19 insect species and two mite species. Predators included one insect species and one mite species. In the first season (2007/2008) R. syriacus started with low levels in April, increased in May and the maximum number of individuals on leaves was recorded in June and July, for the three grapevine varieties. Then, the number of individuals decline rapidly during the next six months (Aug.-Jan.). In the second season (2008/2009) the population density of this insect species showed low level of multiplicity on Mus-cat and Thompson seedless during April and on Azmerly during June. The population increased through July and August to exhibit moderate monthly averages on the three varieties. A quick augmentation respecting the individuals were recorded in September on all grapevine varieties. Through November, December and January, the monthly averages gradually decreased, and the pest completely disappeared in February on all the varieties tested. On the other hand, population of P. ulmi was beginning at low level of abundance during April in the first season or March and April in the second one for the three grapevine varieties. Through May in the first season or May and June in the second one, the population density of this mite species reached its utmost levels of abundance. Then, rapid descended in the level of population density was occurred through the next months, till disappeared in February in the first season and from September in the second one on the leaves of grapevine varieties.

Keywords:

Grapevine, survey, population fluctuation, R. syriacus, P. ulmi.

Published In:

The 4th Conference of Young Scientists Fac. Agric. Assiut Univ., 41, (2), (183-195)