Effect of Abiotic Factors on Population of Red Cotton Bug Dysdercus Koenigii F. (Heteroptera: Pyrrhocoridae) and Its Impact on Cotton Boll Disease

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Abstract : The experiment was conducted at Cotton Research Station, Multan to study the impact of weather factors and red cotton bug (RCB) on cotton boll disease yielded yellowish lint during 2012. The population on RCB along with abiotic factors was recorded during three consecutive years i.e. 2012, 2013, and 2014. Along with population of RCB and abiotic factors, the number of unopened/opened cotton bolls (UOB), percent yellowish lint (YL) and whitish lint (WL) were also recorded. The data revealed that the population per plant of RCB remain 0.50 and 0.34 during years 2012, 2013 but increased during 2014 i.e. 3.21 per plant. The number of UOB were more i.e. 13.43% in 2012 with YL 76.30 and WL 23.70% when average maximum temperature 34.73 °C, minimum temperature 22.83 °C, RH 77.43% and 11.08 mm rainfall. Similarly in 2013 the number of UOB were less i.e. 0.34 per plant with YL 1.48 and WL 99.53 per plant when average maximum temperature 34.60 °C, minimum temperature 23.37 °C, RH 73.01% and 9.95 mm rainfall. During 2014 RCB population per plant was 3.22 with no UOB and YL was 0.00% and WL was 100% when average maximum temperature 23.70 °C, minimum temperature 23.18 °C, RH 71.67% and 4.55 mm rainfall. So it is concluded that the cotton bolls disease was more during 2012 due to more rainfall and more percent RH. The RCB may be the carrier of boll rot disease pathogen during more rainfall.

Keywords : red cotton bug, cotton, weather factors, years

Conference Title : ICE 2015 : International Conference on Entomology

Conference Location : Penang, Malaysia

Conference Dates : December 03-04, 2015