New Agriculturist, **28**(1) : 135–139, 2017 http://biovedjournal.org/

Population dynamics of cotton aphids, *Aphis gossypii* (Glover) and their correlation with different abiotic factors

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Received November 5, 2016 and Accepted February 15, 2017

ABSTRACT : The field studies were carried out to investigate population dynamics of cotton aphids with different abiotic factors. The first appearance of cotton aphids noted in mid July and remained throughout crop cycle and recorded higher activity during 42nd to 40th MSW during 2011 and 2012 cotton growing season. The population of aphids declined gradually after 47th MSW in 2011, while in 2012 the population again increased during 47th to 48th MSW and start declining after 50th MSW. The maximum temperature between 30 to 36 ^{o}C favored the multiplication of cotton aphids. The significant positive correlation was found with maximum temperature and evening humidity, while highly significant negative correlation was observed with morning humidity and rainfall in 2011 growing season. In 2012 non significant positive correlation noted with maximum temperature, while minimum temperature, morning humidity, evening humidity and rainfall did not show significant negative correlation.

Key Words : Population dynamics, abiotic factors, aphids, correlation.