

**Population fluctuation of cotton aphid, *Aphis gossypii*
(Hom.: Aphididae) and its natural enemies on cotton under two
sprayed and unsprayed conditions**

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ABSTRACT

The cotton aphid, *Aphis gossypii* Glover is a major pest in cotton fields of Gorgan area, north of Iran. Population fluctuation of the aphid and its natural enemies were studied under two sprayed and unsprayed conditions during 2002 and 2003 growing seasons. Correlation analyses were used to determine the most influential variables affecting aphid population on cotton plant. First aphid colonies appeared the plants during late June to early July and reached peak numbers during mid September. Natural enemies' populations fluctuated in a simillar pattern. Correlation analyses results showed significant reationships between aphid population, main natural enemies and some climatic factors. However these reationships were depended on species of natural enemies, growing season and chemical treatments. Coccinellids, chrysopids and syrphids as biotic factors and, temperature, daily sunny time and wind speed as abiotic factors were linearly correlated with total aphid population.

Key words: *Aphis gossypii*, *Gossypium hirsutum*, Population dynamics and Natural enemies.

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