

عنوان مقاله:

Effect of Nitrogen Fertilizer on Biological Parameters of the *Aphis craccivora* (Hemiptera: Aphididae) and Associated Productivity Losses in Common Globe Amaranth

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خلاصه مقاله:

Reducing nitrogen status of floriculture plants is an effective tactic in pest management by decreasing host plant quality. Life table parameters and population growth rate of *Aphis craccivora* (Hemiptera: Aphididae), as well as cosmetic and qualitative parameters losses associated with aphid infestation were evaluated in relation to N fertilization levels on *Gomphrena globosa*, under greenhouse condition. Four N fertilization levels (0, 30, 60, and 100% of recommended 2 kg m⁻³) were used. The results indicated that aphid's intrinsic rate of natural increase on plants fertilized with 100% of the recommended N level was the highest. Abundance and population growth rate of aphid also positively correlated with N fertilization levels. The interactive effect of aphid population and N fertility significantly affected growth parameters of the plants. In the absence of aphid, plant yield improved linearly with increasing N levels. However, aphid population highly decreased shoot to root ratio and the number of flowers in plants fertilized with 100% of the recommended N level. According to our findings, fine-tuning fertility to reduce *A. craccivora* population is a steadfast tactic to produce marketable globe amaranth ornamental plant

کلمات کلیدی:

Aphid performance, *Aphis craccivora*, Nitrogen fertilization, Plant yield, Population growth

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