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## Relationships of broad mite (Acari: Tarsonemidae) density to damage of apical pepper leaves and phytochemical components.

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**Abstract:**The effect of the feeding of the broad mite *Polyphagotarsonemus latus* (Banks) (Acari: Tarsonemidae) on the phytochemical components of apical sweet pepper leaves (*Capsicum annuum* L.) in net houses was studied. The research was performed on a cultivated variety as a host plant. Nutrients were estimated in healthy (control) and lightly and highly infested apical leaves. A 3-fold increase in the population density of *P. latus* from 5.2 to 14.9 per leaf, are accompanied by decrease of 56.3% and 49.2% in the fresh and dry weight, respectively. In the heavily infested apical leaves, nitrogen, phosphorus and total proteins were the highest. The same thing was noticed to iron, zinc and manganese contents. A decrease in the potassium and copper contents were also detected. The broad mite *P. latus* had the strongest influence in increasing concentrations on the most phytochemical components of its host plants.

**Keywords:** damage; *Polyphagotarsonemus latus*; Tarsonemidae; Acari; *Capsicum annuum*; macro- and micronutrients; fertilizers; apical leaves; agricultural-acarology.

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