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EXOGENOUS AMINOLEVULINIC ACID EFFECTS ON ORNAMENTAL PEPPER

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Greenhouse experiments were conducted to determine the effect of exogenous aminolevulinic acid rates (ALA, 0-45 mg/L) on shoot height, leaf area, stem diameter, chlorophyll and nitrogen in sap concentration, and fruit production in 'NuMex Centennial' ornamental pepper. ALA was sprayed on the leaves of plants approximately 13-cm tall and with five true leaves. ALA rates up to 15 mg/L did not significantly affect those variables. ALA rates >15 mg/L resulted in reduced plant height, leaf area, fruit production. Thus, exogenous ALA did not improve ornamental pepper growth and fruit yield, and rates >15 mg/L had toxic effects that may be related to its photodynamic activity.