# Nitrogen Toxicity on Lettuce Grown under Greenhouse Conditions. (C03-hoque144038-Poster)

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## Abstract:

Ammonium toxicity was identified as a major problem in lettuce production. Significant nitrite toxicity symptoms were observed on head lettuce (Lactuca sativa L.) in various locations in California. Our objective was to determine the causes of nitrogen toxicity in different types of lettuce. Ammonium and nitrite toxicity symptoms were evaluated in solution culture for two types of lettuce, head lettuce (var. Sundevil) and romaine (var. Paragon). Toxicity symptoms between two types of lettuce varied and were more severe in head lettuce than romaine. Discoloration (brownish color) in the crown was observed in lettuce grown in both nitrite and ammonium solutions. Lettuce grown in nitrate source produced larger biomass and greater number of leaves per plant than lettuce grown in nitrite or ammonium solutions. Different rates of nitrite and ammonium are being evaluated. Critical toxicity values for ammonium and nitrite will be presented.

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