

ABSTRACT

Master Thesis

BORON TOXICITY IN COTTON

Ümit HARİTE

**Adnan Menderes University
Graduate School of Natural and Applied Sciences
Department of Agricultural Soil Sciences**

Advisor: Assoc. Prof. Dr. Mehmet AYDIN

This research has been carried out at Adnan Menderes University the Faculty of Agriculture Application Greenhouse in 2006. The reactions of cotton varieties, grown in a mixture of sand and perlite medium, were investigated in point of boron (B) doses. The experiment was conducted with four boron doses (0.5, 7.5, 15, 22.5 mg B L⁻¹) and eight cultivars (Barut 2005, Gossipolsüz Nazilli, Gürel Bey, Nazilli 143, Nazilli 342, Nazilli 39, Nazilli-503, STN 8A) in factorial experiment design.

Number of damaged leaf from boron toxicity, root, stem and leaf boron concentrations increased by boron application doses while fresh weight, dry weight and leaf numbers per plant decreased. In point of yield relations on boron doses, Gürel Bey and Gossipolsüz Nazilli cultivars were the most tolerant and Nazilli 39 cultivar was the most sensitive against boron toxicity.

2008, 74 pages

Key Words

G. hirsutum L, cultivars, leaf, stem, root, boron concentration