



Sunland Analytical

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Boron – the Good, Bad and Amount Tolerated

Boron was established as an essential micronutrient in 1923, but it also has the downside that it is toxic at rather low concentrations. Thus, care has to be taken to have adequate amounts, but not get into the toxic range. Boron functions to aid sugar transport across cell membranes as well as facilitating cell membrane synthesis and cell lengthening.

Toxicity from excess Boron typically appears as initial yellowing of the leaf tip and margins and over time will kill the plant.

Boron deficiency symptoms generally show death of the growing tips of the plant, puckered or deformed leaves and/or flowers, and often corky veins and, of course, decreased growth and crop production. The other side of the coin has excess Boron where sensitive plants are affected at concentrations :

Keep In Range

Sensitive Plants	below 1.75 ppm
Semi-tolerant Plants	below 3.25 ppm
Tolerant Plants	below 5.0 ppm

Borax is a readily available source of Boron fertilizer. Mined in the desert areas of California, it is water soluble and therefore can be easily applied. Also Boric acid (which can be purchased at most drug stores) can be used for landscape applications. The amount used is very small, be sure to follow amounts provided with soil analysis recommendations. And take to apply it evenly in the area of application.