

WHAT YOU NEED TO KNOW ABOUT BORATES FOR AGRICULTURE



Hydroboracite Information Sheet, June 2014

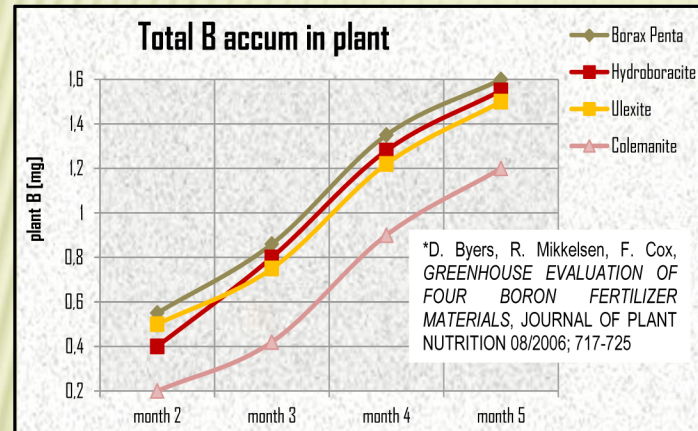
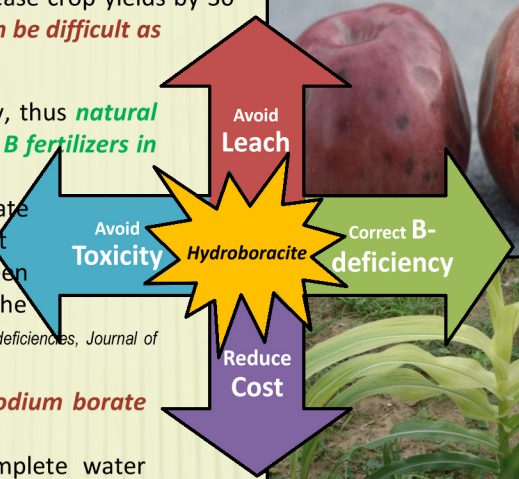
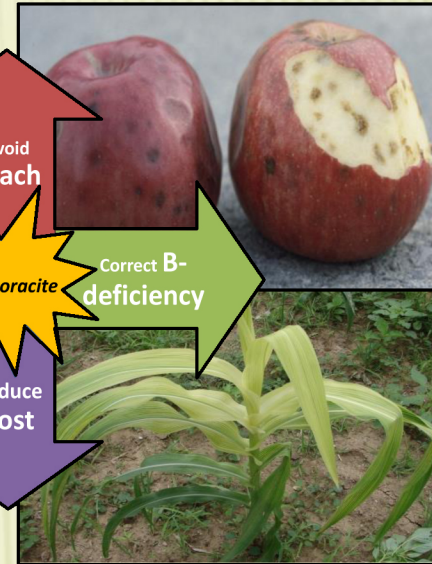
Boron (B) is an essential micronutrient for plants. B deficiency affects large areas of the world, but can be corrected with borate fertilizers which can increase crop yields by 30 to 40%. **However, the management of B concentrations in soils can be difficult as a narrow range exists between plant deficiency and toxicity.**

B supply can be optimized by using an ore which dissolves slowly, thus **natural Hydroboracite is proving to be superior to the traditional soluble B fertilizers in providing a steady supply of B to the plants.**

Due to its release characteristic, this Magnesium/Calcium/Iron borate releases B at the same rate to which most plants need to take B out of the soil. Hydroboracite can be applied in quantities to last between 1 and 5 years in the soil but without the risk of causing toxicity to the plants (Page, N.R., Cooper, H.P., Less-soluble boron compounds for correcting boron nutritional deficiencies, Journal of Agricultural and Food Chemistry).

Ancient soil management centered on correction with soluble sodium borate fertilizers would generally give very short-lasting protection.

In some countries, colemanite is used, despite its almost complete water insolubility. This usage is mainly due to tradition, outdated cost-benefit criteria, and to availability of accessible sources.



In other countries, most B fertilizers are based on sodium borate (ulexite, borax penta, boric acid or DOT) generally applied as liquid foliar sprays. Problem 1: the B not immediately absorbed by the plant leaches away immediately with water, as sodium borate is highly water soluble. Problem 2: B in solution is completely available to the plant all at the same time. **Thus, if too much B is applied then the plants get B toxicity, while they will be B deficient again in less than 2 months.**

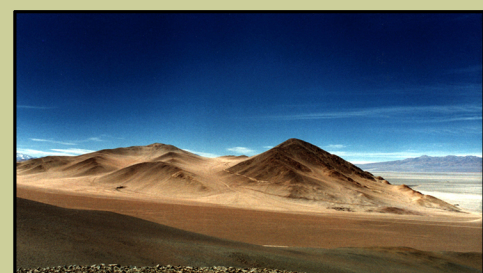
Indeed, as agriculture becomes a more demanding business, more cost effective solutions are being sought, and **Hydroboracite is starting to receive worldwide attention thanks to its economic and agronomic advantages.**

Field tests show that Hydroboracite has a performance almost identical to that of double priced borax pentahydrate and superior to ulexite or colemanite*. Hydroboracite (available with B contents of B9%, B10,5% or B13%) contains no Sodium, and provides Magnesium/Calcium/Iron which makes it ideal for blend fertilizers. It can be used in ground or in powder form. A 75% of total Boron in Hydroboracite is soluble in citric acid 2%. Being a natural product, it can be used as an organic fertilizer.

The most advanced, demanding and technified agro industries are already using Hydroboracite (USA, New Zealand, Australia, South Africa, Brazil, Argentina, and counting).



Hydroboracite: a worldwide success as the top cost-effective B fertilizer.



SAP INTERNATIONAL CORPORATION bvba
Krekelenberg 69,B-2980 Zoersel, Belgium
Tel. +32-3-309.06.51 Fax. +32-3-309.19.31

We have access to the most important Hydroboracite deposits in the world, which assures regular & fast supply and, together with its renowned quality, makes SAP INTERNATIONAL CORPORATION a strategical business partner for the long term.

ARE YOU USING A COST-EFFECTIVE BORON FERTILIZER ?

For additional info, please contact us
Email : info@sico.be Website : www.sico.be

