



Solubor® DF

17.2% B Typical
Composition:

Boric Acid, H_3BO_3
Borax Pentahydrate, $Na_2B_4O_7 \cdot 5H_2O$
Sodium Pentaborate, $Na_2B_{10}O_{16} \cdot 10H_2O$

Background

Boron is one of seven micronutrients essential to all plant growth. Its role was recognized first in the 1920s and since that time, boron deficiency has been recognized in a wide range of crops.

Correcting boron deficiency

Boron deficiency can be remedied by the correct application of a borate containing material in solid or liquid fertilizers, to the seedbed in annual crops or under the foliar canopy of perennial crops. Perennial and annual crops can also be sprayed with boron containing solutions. These are normally tank mixed with other micronutrients or with agrochemical products.

The latter method of application may be preferable since at peak requirement times the boron needs of the growing plant can frequently

exceed its ability to obtain its needs through the roots. Mixing with other sprays as part of a program enables the grower to time this availability and save application cost.

Detecting boron deficiency

Boron deficiency shows in clearly defined ways in certain crops. Generally, by the time visible symptoms are seen, yields will already have been adversely affected. The best way to establish need is either through soil testing or through tissue analysis. In this way, boron supplementation can form part of a 'balanced nutrition' approach to crop fertilization.

Predicting boron deficiency

Certain crops world-wide are known to be more susceptible to lack of boron than others. These are shown in the tables.

Susceptible

Alfalfa (Lucerne)	Cotton	Red Beet
Apple	Eucalyptus	Rutabaga
Broccoli	Grape	Sugar beet
Carnation	Groundnut	Sunflower
Cauliflower	Mangold	Swede
Carrot	Oil palm	Turnip
Celery	Oilseed rape	Vinew
Chrysanthemum	Olive	
Coffee	Pine	

Moderately susceptible

Banana	Cocoa	Pear
Brussels sprout	Coconut	Poppy
Cabbage	Flax linseed	Potato
Chinese cabbage	Hops	Tea
Citrus	Maize corn	Tobacco
Clover	Papaya	Tomato

