



Look for Part 1 and 2 of this retailer bulletin series which highlights the importance of foliar manganese.

The Wolf Trax® patented Dual Action™ formulation allows your customers more flexibility in spray timing. Take pride in recommending Wolf Trax Boron DDP® - a high quality product, backed by the industry-leading GROWING FORWARD® Guarantee.

## Foliar boron – When and why it pays (Part 3 of 3)

Part One and Two of this bulletin series looked at the advantages and payback of applying foliar manganese. This bulletin focuses on foliar boron, and its advantages.

Boron is a critical micronutrient in crop production because of its roles in (a) keeping cell walls intact and (b) ensuring good flowering/fruitletting and seed production.

This micronutrient does not behave the same way that other micronutrients do – either in the soil or in the plant. Unlike other micronutrients which are relatively immobile, boron can move in the soil. As well, once taken up by the plant, this micronutrient will move up through the xylem, driven by water flow as the plant draws moisture from the soil. From a practical point of view, this means that anything that slows down water movement in the plant (cloudy conditions, dry weather) can cause temporary boron deficiencies. Dry weather or cloud cover means less ‘wicking up’ of soil moisture from the soil into the plant, and thus less soil-borne boron moving up into the plant with that moisture.

This is why foliar applications of boron can be beneficial. Getting boron into the plant with a foliar application can either correct mounting deficiencies arising from these weather conditions, or it can help minimize the risk of deficiency later in the season.

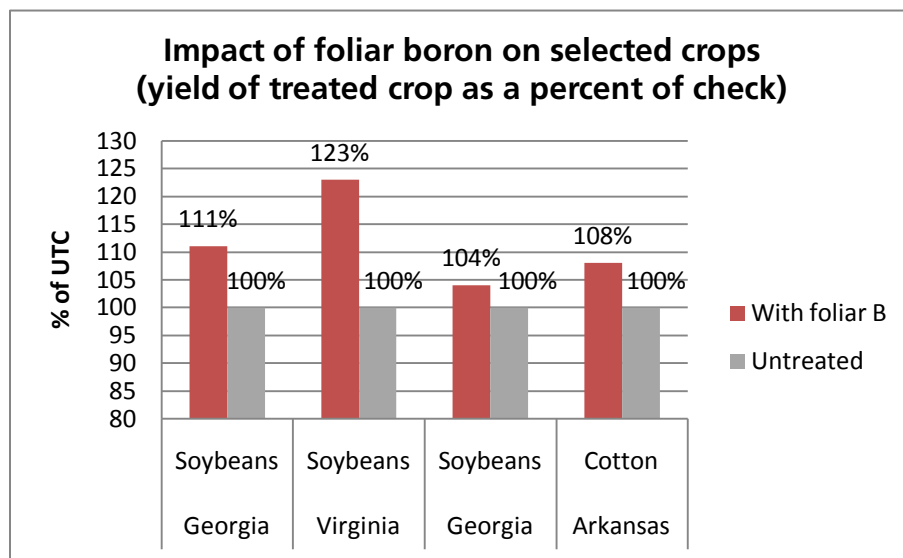
Here are three facts to consider:

- **Correcting boron deficiencies with a foliar application pays.** A collection of yield results from replicated trials where foliar boron was compared to an untreated check show a yield increase of anywhere from 4 to 23 percent versus untreated. (See following chart)
- **Boron plays a critical role in developing seed set and yields.** If your customer is short of boron as the crop begins to flower it can really reduce yield. Seriously consider whether boron is needed as the crop approaches flowering. As a general rule, applications up to R3 in soybeans, and up to prebud in canola, alfalfa or other boron- responsive crops can be beneficial.

(continued)

- **Make your foliar boron decision based on history, tissue test results, and weather.** Evidence that may lead you to conclude that boron is needed includes (a) a prior history of boron deficiency on a given field or (b) a tissue test from the crop that shows boron deficiency. These factors point towards a need for boron especially if the crop is growing on dry soils OR is experiencing cloudy weather at the time the crop is flowering or setting seed.

**Chart 1 Yield responses from boron applications (Data compiled from various sources)**



### Applying Wolf Trax Boron DDP

Wolf Trax Boron DDP is specially formulated with two sources of boron to deliver Dual Action™ Availability. This means that there is a portion of boron immediately available to the plant, while another portion becomes available over time, for extended feeding. The benefit of this Dual Action Formulation is that your customers will have more flexibility in spray timing, and the effectiveness of the product is maximized. In addition, Boron DDP mixes quickly and easily with water for headache-free spraying and it is compatible with a wide range of crop protection products. The product has been shown to be effective in terms of uptake, and is backed by the GROWING FORWARD® Guarantee.

*You and Wolf Trax....Growing Forward® together.*

For more information on the Wolf Trax DDP family of Innovative Micronutrients, please call 204-237-9653, or visit us at [www.wolftrax.com](http://www.wolftrax.com).