



## How to make foliar manganese applications pay (Part 1 of 3)

This bulletin summarizes research showing that addressing manganese deficiencies with a foliar application early in the crop's development really pays.

Look for Part 2 to this bulletin for more information.

Applications of foliar manganese have been an important part of growers' fertility programs for many years. Farmers understand that the characteristic yellowing arising from a manganese deficiency shows how crippled photosynthesis can become. They also understand that applying foliar manganese in situations of deficiency pays.

A study conducted by researchers at Virginia Polytechnic Institute, shows just how great the payback can be. This study, summarized in Table 1, was established on three soils where manganese deficiencies were an issue.

The first thing to note is that the use of manganese increased yields by 62 to 141% versus the check, on average. The second thing to note (and perhaps most key), is how much better the "bang for the buck" is when you correct the problem early versus late. Note that tackling manganese deficiencies early (at V6 stage) at the Myatt location paid off with a 19% increase in yield versus only 4% if applied near bloom.

**Table 1 Yield increase over check with manganese applications – early versus late<sup>1</sup>**

| Treatment                     | Myatt | Dragston1 | Dragston2 | Average     |
|-------------------------------|-------|-----------|-----------|-------------|
| Early application (V6)        | 19%   | 127%      | 185%      | <b>110%</b> |
| Late application (R1)         | 4%    | 106%      | 76%       | <b>62%</b>  |
| Early + Late (Both V6 and R1) | 22%   | 193%      | 209%      | <b>141%</b> |

This study shows that the biggest bang for your manganese buck is by addressing your deficiency as early as possible.

Wolf Trax Manganese DDP is an ideal solution to help your farmers maximize their yield and payback. The patented Dual Action™ formulation allows your growers to address deficiencies early and provides unmatched flexibility in spray timing.

*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).

<sup>1</sup> Gettier et al., 1985. *Agron J.* 77: 627-630.

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