



Retailer Bulletin

Lateral movement of Wolf Trax Boron DDP Micronutrients in the soil (part 2 of 2)

This research bulletin includes results of **the second of two** studies on movement of DDP® Micronutrients in the soil following a fall application. Please look for **Part One – Vertical Movement of DDP Micronutrients in the soil profile when fall applied**

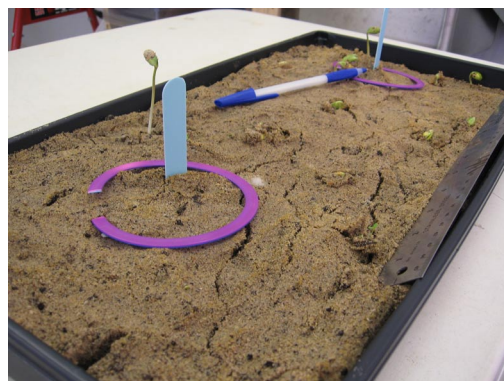
Don't forget to ask about our **Growing Forward Offer** – and find out how Wolf Trax can offer you and your customers more value than ever before.

In 2006 and early 2007, Wolf Trax® researchers developed two studies to look at how DDP can move in the soil profile, especially compared to typical granular micronutrients.

Study Two: Lateral Movement in the Soil. Many customers want to know if DDP Micronutrients, and especially Boron DDP could be applied to a soil in the fall. This study compares the lateral movement of Boron DDP compared to a typical granular Boron.

Method:

- In this study, a “vulnerable” soil was used – a sandy soil with low organic matter (1 to 2 percent) and high pH (7.3 to 8).
- This study simulated a high moisture condition (winter snow melt).
- DDP Boron was coated onto NPK fertilizer and placed in the soil. Granular Boron was applied to the soil at a rate equivalent to 1 lb/acre of actual. This led to granules located 10 to 12 inches apart in the soil. The locations of the granular boron were marked with 5 inch rings.
- An equivalent of 10 inches of precipitation was applied over two weeks.
- Soybeans and corn were then seeded into the soil.
- Soil tests were conducted at the 4 leaf stage of soybeans within and outside the 2½ inch radius of the granular boron, as well as in the trials containing the DDP Boron, to measure boron content and track boron movement in the soil.



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Results with Granular Boron:

- a) Very high levels of Boron were found near the seedlings within 2.5 inches of the Boron granules. These levels are considered toxic. Significant plant stress was noted within the 4 inch circle nearest the Boron granule. (See Fig. 1 below).
- b) No Boron was found more than 2.5 inches away from the Boron granule.

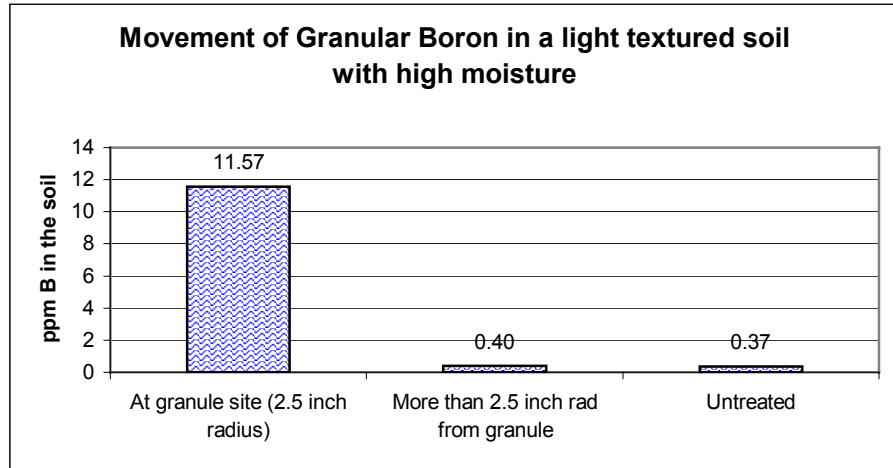
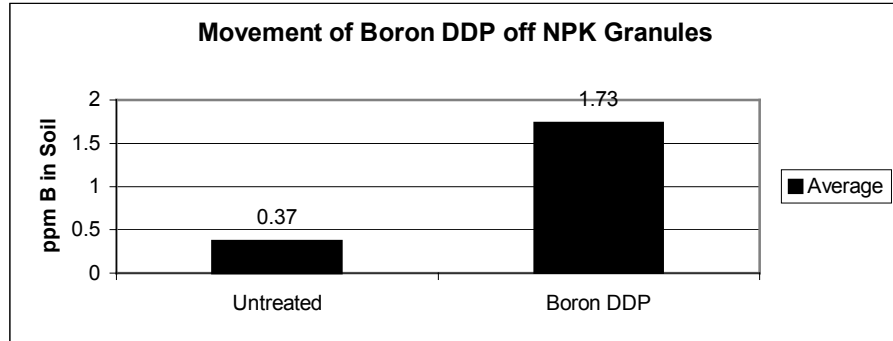


Fig. 1. Effect of Granular Boron placement on plant toxicity. Plants on the right were found within 4 inches of granular Boron placement, and demonstrate signs of Boron toxicity. Corn plants on the left were found in areas beyond 4 inch radius of Boron granule placement.

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Results with Boron DDP Fertilizer coating

- a) Very consistent and even Boron levels through the seed zone were found in the Boron DDP coated trials (average ppm = 1.73). No plant toxicity was noted.



Conclusion:

- a) Typical application rates of Boron (1 lb actual B/acre) lead to granules in the soil approximately 10 to 12 inches apart.
- b) Granular Boron does not appear to move laterally in the soil, leading to small areas of plant toxicity, and other areas of deficiency.
- c) Coating fertilizer with Boron DDP is an excellent way to deliver Boron throughout the rooting zone, and ensure even and consistent rates.

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.