



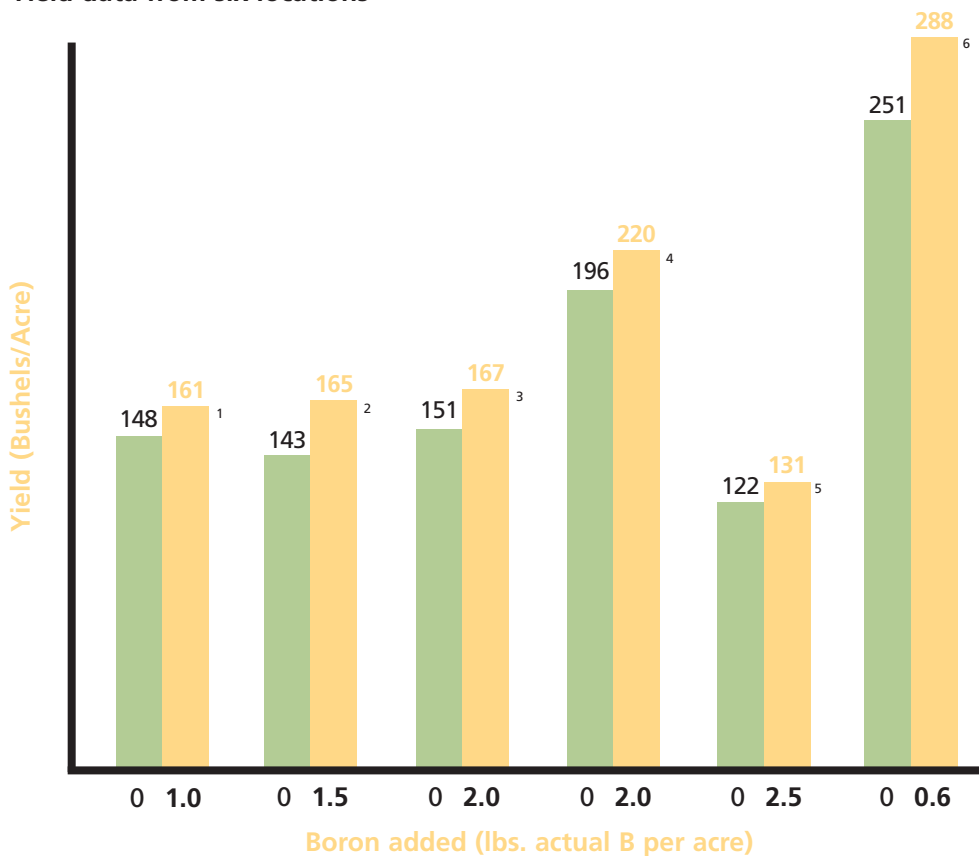
# Corn

Boron is an essential nutrient for all plants. Corn requires high levels of all nutrients to ensure maximum economic yields. Boron is necessary for:

- Stimulation of root and shoot development
- Tassel and silk formation
- Movement of sugars from leaves to ears
- Pollen germination
- Pollen tube growth and seed formation
- Better water use efficiency and drought tolerance

Boron is a key element in plant nutrition. University researchers have found yield increases ranging from 9 to 37 bushels of corn per acre where boron was added.

Yield data from six locations



1. Rhodes, F.M. 1980. Unpublished data. North Florida Research and Education Center, University of Florida, Quincy, Florida.
2. R.L. Flanery. 1975. Unpublished data. Rutgers University, New Brunswick, New Jersey.
3. Woodruff, J.R., F.W. Moore, and H.L. Musen. 1987. Agron. J. 79:520-524.
4. Sparks, D.L. 1986. Boron Workshop – Sponsored by U.S. Borax Inc., Holiday Inn (I-64 & W. Broad Street) Richmond, Virginia, August 5 – 6, 1986.
5. Schulte, E.E. 1988. Boron Workshop – Sponsored by U.S. Borax Inc., Executive Inn, Louisville, Kentucky, July 19 – 20, 1988.
6. Woodruff, J.R., and J.P. Zublena. 1986. Agron. Abstracts p. 219 – 220.

# The • Boron • Bonus



## Corn

### How much boron is enough?

- Corn removes significant amounts of boron from the soil each year. In high yield situations, boron fertilization becomes critically important. Most universities recommend boron at planting, in sidedressing, or fertigated for irrigated corn.
- Rates of boron fertilization should be based on yield goals along with soil tests and/or plant analyses. The following chart gives general application rate guidelines:

Fertilization of corn				
Recommended lbs. of boron per acre per year				
Yield goal (Bushels/Acre)	Application methods	Boron Soil Test Rating		
		Low	Medium	High
Less than 100	Broadcast preplant	1.0	0	0
	Band at planting <sup>1</sup>	0.25	0	0
	Sidedress	1.0	0	0
100 to 150	Broadcast preplant	1.0	0	0
	Band at planting <sup>1</sup>	0.25	0.25	0
	Sidedress	1.0	1.0	0
More than 150	Broadcast preplant	2.0	2.0	0
	Band at planting <sup>1</sup>	0.5	0.5	0
	Sidedress or fertigate <sup>2</sup>	2.0	2.0	0

1. Banding at planting is more efficient than broadcast.
2. Split applications are recommended. Do not exceed 2 lbs. of total applied B/acre per year.

### Timing your boron application

- Boron may be applied in dry bulk blended fertilizer, broadcast before planting, using *Granubor*® 15%.
- Boron in liquid suspensions may be applied broadcast before planting, banded at planting, or sidedressed, using *Fertibor*® in suspensions.
- Boron in liquid fertilizers may be broadcast before planting, banded at planting, sidedressed, or fertigated, using *Solubor*® or *Solubor*® DF.
- Boron for high-yield, irrigated corn may be applied most conveniently through the irrigation system as *Solubor*® or *Solubor*® DF 4-6 weeks after emergence in two applications up to one pound each.
- *Never apply boron in direct contact with the seed.*

For more information:

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