

# Boron in Soy



## Study Details

Date: 2003 - 2004

Location: Punjab, India

Soil: Alluvial soil, loam, 0.24-0.30% organic content, 132-145 kg/ha total nitrogen, 14.2-13.4 kg/ha available phosphor, 178-190 kg/ha available potassium, pH = 8.2-8.3

Crop variety: Jundan 20

Fertilizers: Water soluble particles with B  $\geq$ 10%, Zn  $\geq$ 10%, 400 g/mu was spread in the soil when the maize seeds were sowed together with routine fertilization

Trial design: 3 treatments (0.75, 1.00, 1.25kg B/ha), 3 replications, randomized block design

## Results

Applications of 0.75, 1.00 and 1.25 showed significant yield increase over the control. There was no significant effect between treatments

## Source

Khurana, M.P.S.; Arora, S.; Comparative efficiency of Borax and Granubor as Boron Fertilizers for Lentil and Soybean Grown on Alluvial Alkaline Soils. *Journal of Plant Nutrition*, 35:2145-2155 (2012).

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## Effect of Boron Sources and Levels on Soybean Yield, Boron Content and Uptake

Treatment	Boron Content						
	Yield (kg ha <sup>-1</sup> )		(μg g <sup>-1</sup> )		Boron uptake (g ha <sup>-1</sup> )		
	Seed	Straw	Seed	Straw	Seed	Straw	Total
Control	1220	4472	19.4	19.4	2.35	111.6	135.1
Borax (0.75 kg B ha <sup>-1</sup> )	1442	4871	25.6	24.7	37.0	161.5	198.6
Borax (1.0 kg B ha <sup>-1</sup> )	1491	5042	28.8	26.9	43.2	184.0	227.2
Borax (1.25 kg B ha <sup>-1</sup> )	1522	5052	31.0	32.9	47.3	195.0	242.3
<i>Granubor</i> <sup>®</sup> (0.75 kg B ha <sup>-1</sup> )	1437	4963	26.7	25.0	39.2	170.3	209.5
<i>Granubor</i> (1.0 kg B ha <sup>-1</sup> )	1524	5062	29.1	28.1	44.0	190.6	234.6
<i>Granubor</i> (1.25 kg B ha <sup>-1</sup> )	1526	5094	29.9	32.9	45.5	195.4	240.8
SEm±	41.18	82.49	1.47	1.85	3.05	11.26	14.29
LSD (P < 0.05)	103	294	2.5	1.79	4.3	12.3	12.6