Field trial: Soy

Study details

- Research institution: NEMABIO, Agronomic Research (Dr. Claudinei Kappes)
- Date: Two-year field trial (2022/23 and 2023/24)
- Location: Sinop, MT - Brazil
- Crop variety: BMX Bônus IPRO
- Soil: Dystrophic Red-Yellow Latosol (Oxisol); Clay 40.8%; Sand 51.0%; Silt 8.2%
- Soil information: pH 4.9 ($CaCl_2$); OM 19.6 g/dm^3; P 9.6 mg/dm^3; K 34.5 mg/dm^3; S 16 mg/dm^3; Ca 2.1 cmolc/dm^3; Mg 0.6 cmolc/dm^3; B 0.14 mg/dm^3; Cu 1.5 mg/dm^3; Mn 2.0 mg/dm^3; Zn 5.1 mg/dm^3; Fe 37 mg/dm^3
- Fertilizer: *Granubor*®
- Purpose: Evaluate and develop yield data, leaf boron content, and boron content in the soil on *Granubor* vs acidulated ulexite
- Trial design: Randomized complete block with four repetitions
- Metrics: Yield (kg/ha), B content in the leaves, and B content in the soil (after harvest)
- Metric: Plant Stand evaluation: To ensure consistent stand in each replication
- Analysis: Statistical analysis of yield metric to evaluate product performance

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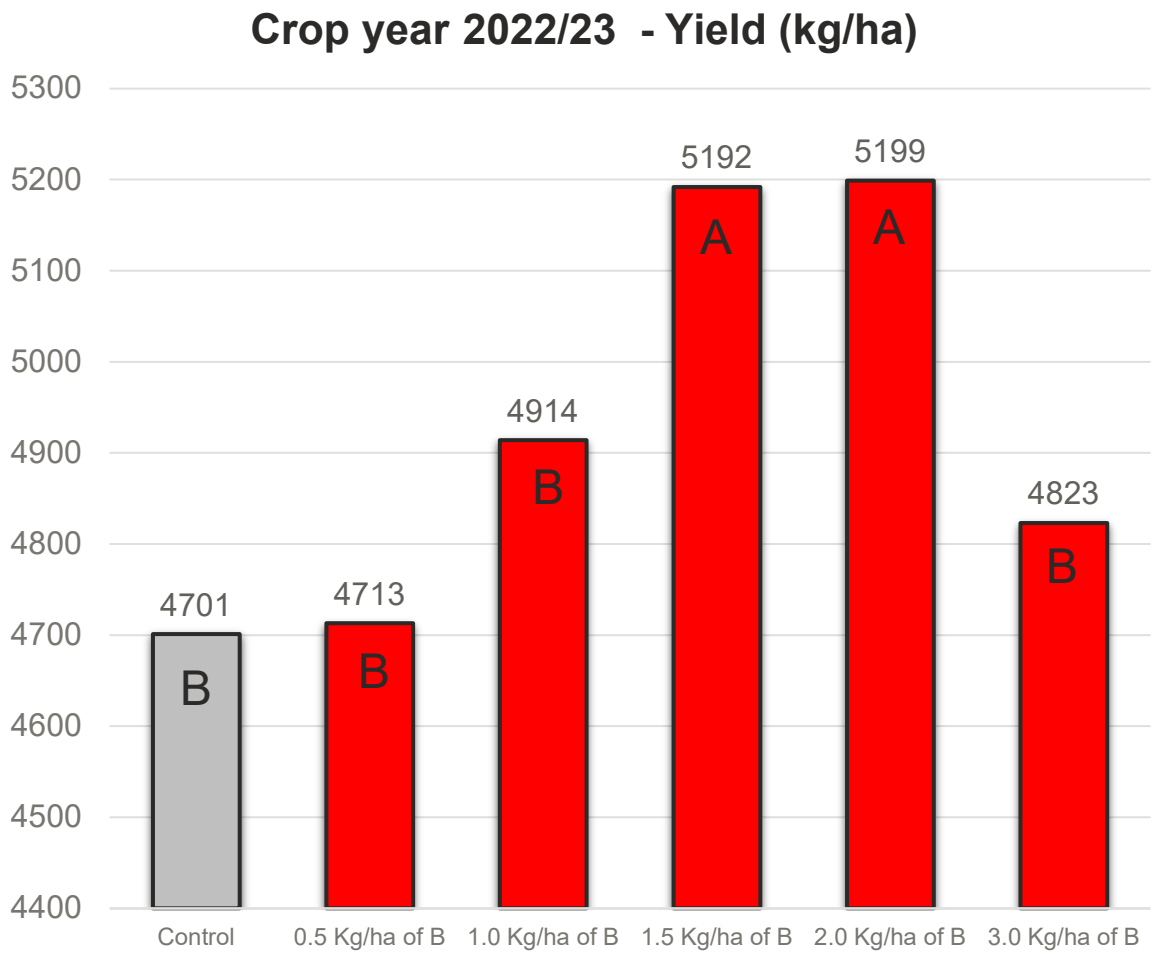
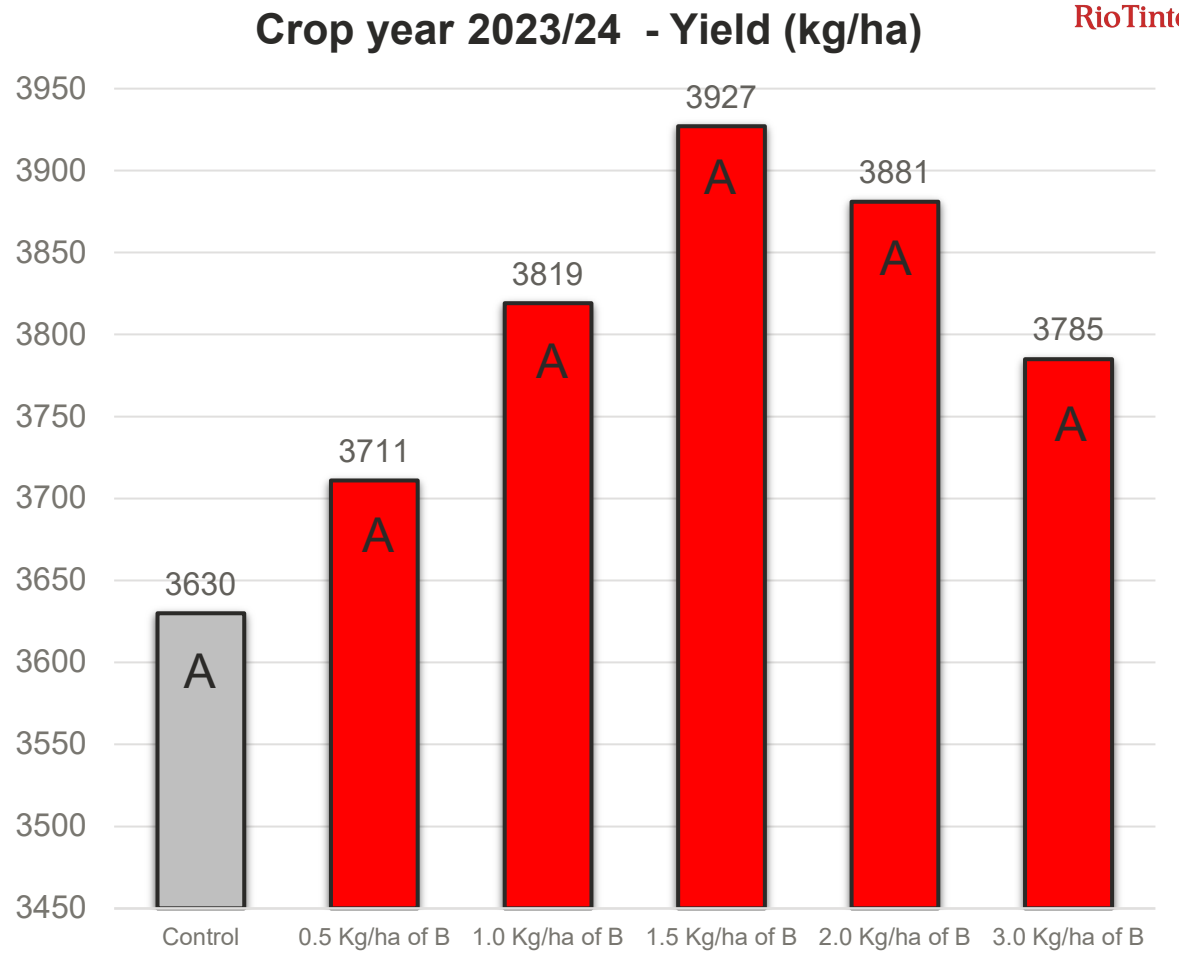


Scott-Knott test (p<0,1)
CV: 4.28%

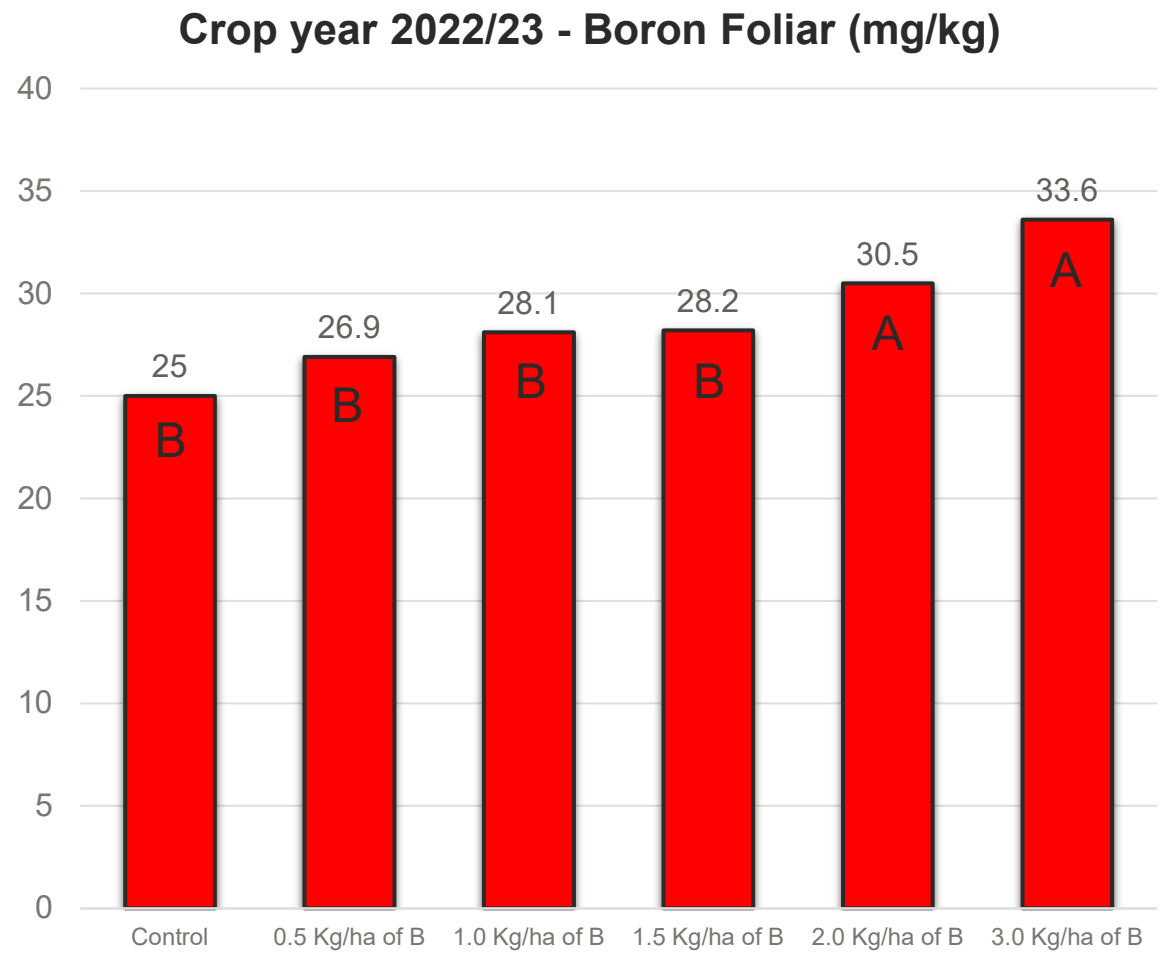
Source: C. Kappes, 2023



Scott-Knott test (p<0,1)
CV: 5.50%

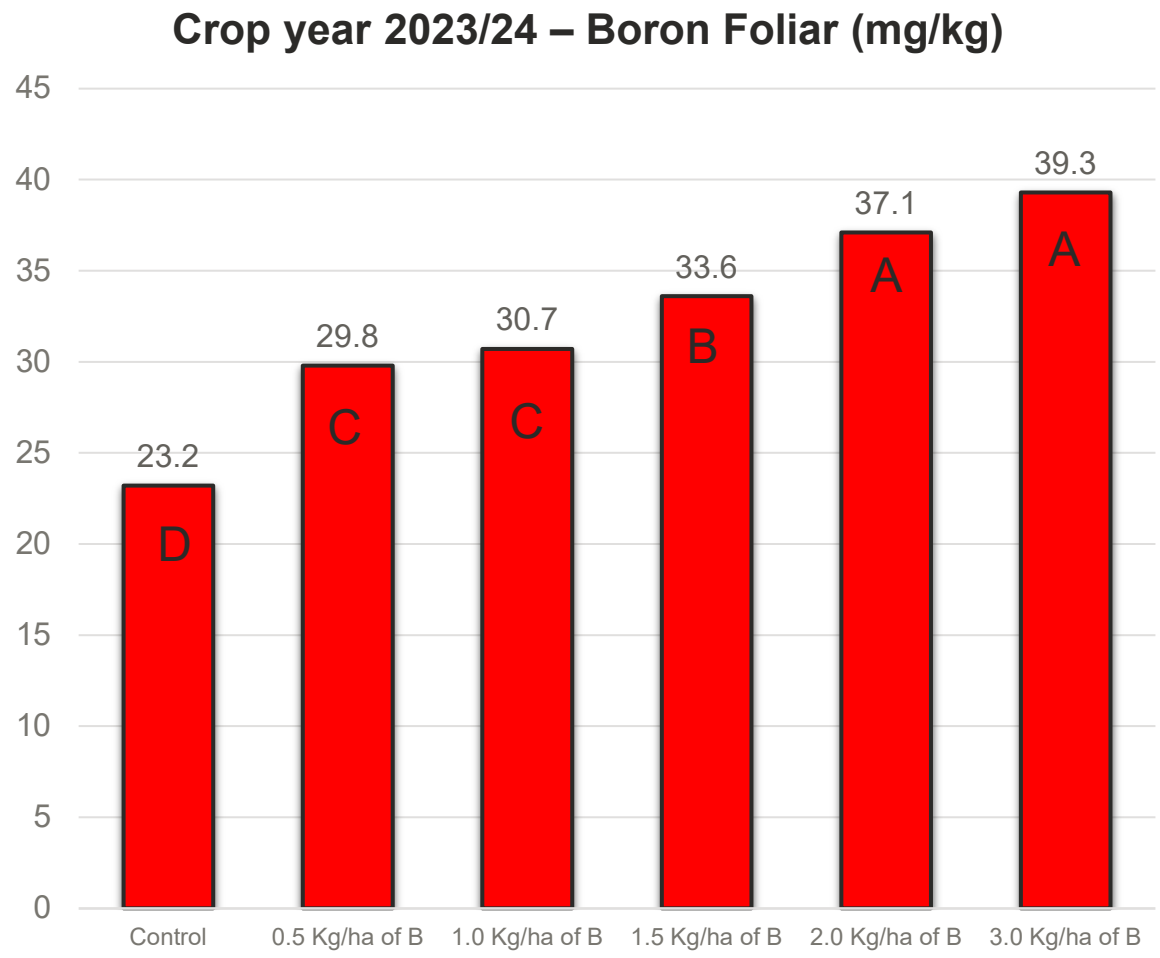
Source: C. Kappes, 2024

Field trial: Soy



Scott-Knott test (p<0,1)
CV: 12.24%

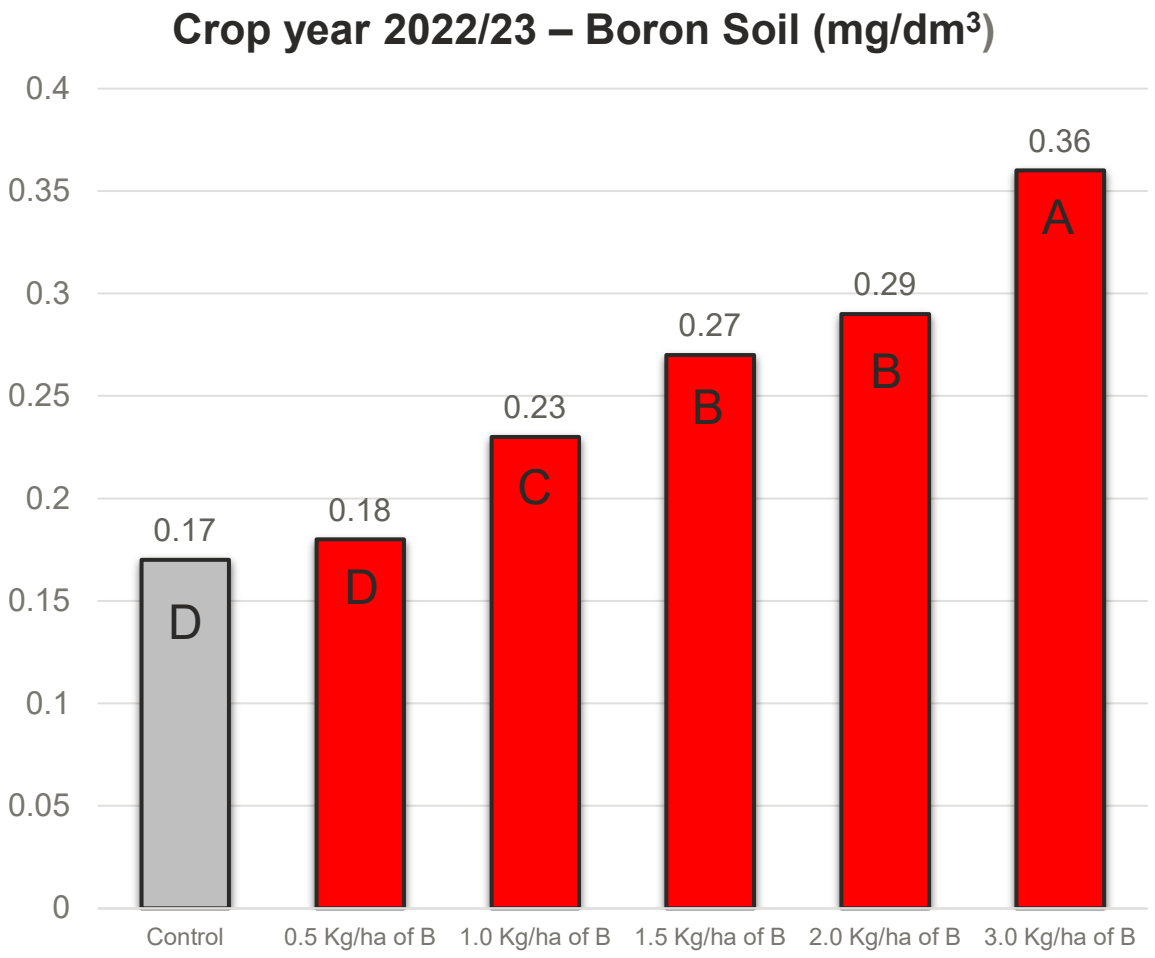
Source: C. Kappes, 2023



Scott-Knott test (p<0,1)
CV: 6.81%

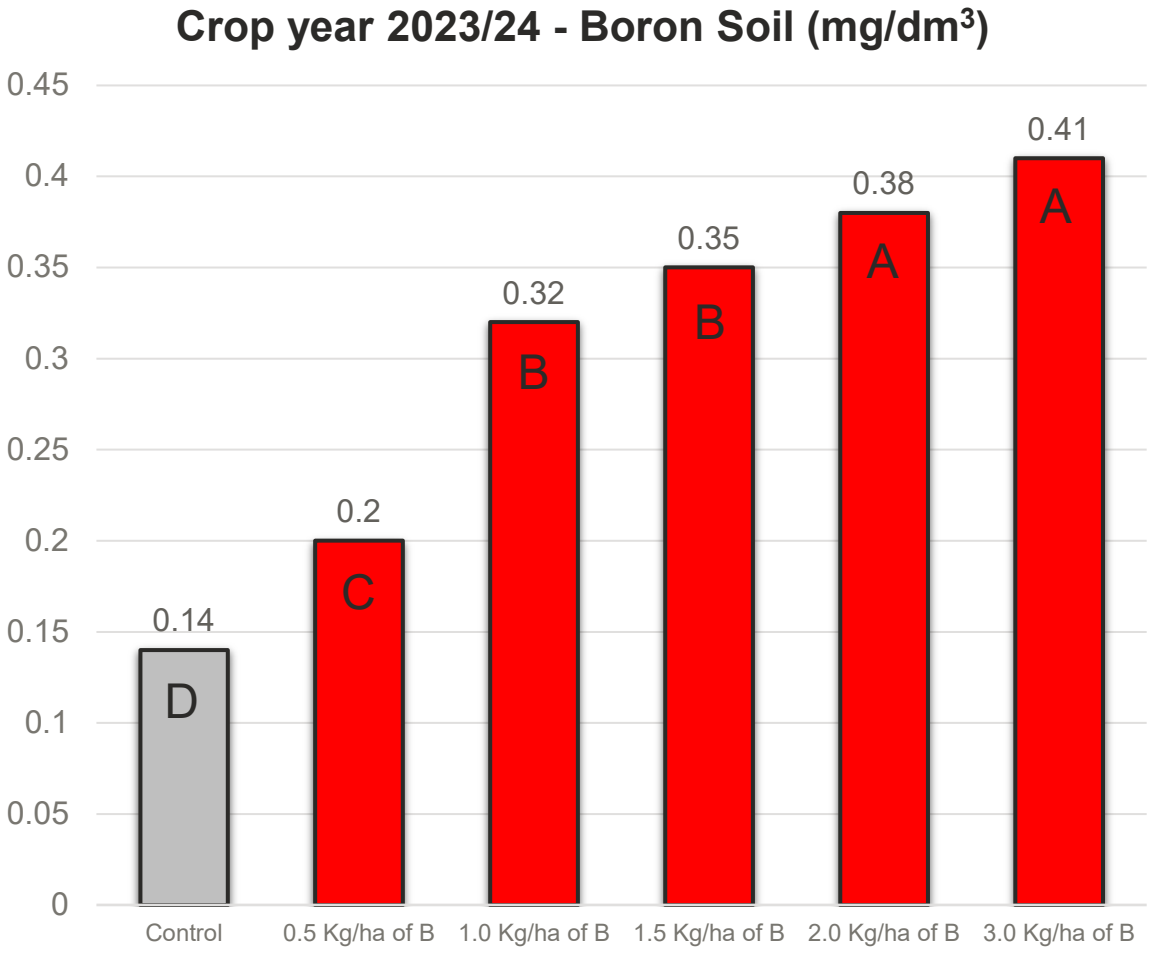
Source: C. Kappes, 2024

Field trial: Soy



Scott-Knott test (p<0,1)
CV: 10.47%

Source: C. Kappes, 2023



Scott-Knott test (p<0,1)
CV: 12.08%

Source: C. Kappes, 2024

Results

The results obtained allowed us to conclude that:

a) The application of 2.0 kg/ha of B via *Granubor* in soil with low initial availability of the element led to higher soybean yield (cv BMX Bônus IPRO), whose percentage increase was 10.6% in the season 2022/23, compared to the treatment control

b) The application of 1.5 kg/ha of B via *Granubor* in soil with low initial availability of the element led to higher soybean yield (cv BMX Bônus IPRO), whose percentage increase was 8.2% in the season 2023/24, compared to the treatment control

c) Applications of increasing doses of B linearly increased the levels of the element in the leaf and soil, where the lowest values were seen in the treatment control