

16% yield increase

SOYBEAN

Andrée Deschênes et al.,
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OBJECTIVE

Evaluate the effect of *Glomus intraradices* on the growth of soybean (*Glycine max*) under large-scale production conditions.

METHODS

Soybean seeds of the variety: Vencedora BRS-MG- 68 were directly sown on corn stubble at 50 kg / ha in Uberaba, Brazil. Mycorrhizal inoculant was applied to seeds at the recommended rate prior to seeding.

All plots were supplemented with the following products:

- Vitamax-Thiram 300 ml/100 kg
- Regente 30 g/100 kg
- Manganese 1 L/100 kg
- Nitragin Soybean Inoculant 300 ml/100 kg

Plants were harvested at the end of the growing season and plant density, pods per plant, pods per square meter, grain weight, yield and number of nodules were recorded.

RESULTS

Soybean responded positively in all measured parameters except for the number of pods per plant (Table 1). Plant density was increased by 9.8% and the

number of pods per square meter was increased by 16.4%. Furthermore, there were 122% more nodules per meter of row, a 5% increase in grain weight and a 16% yield increase (Figure 1).

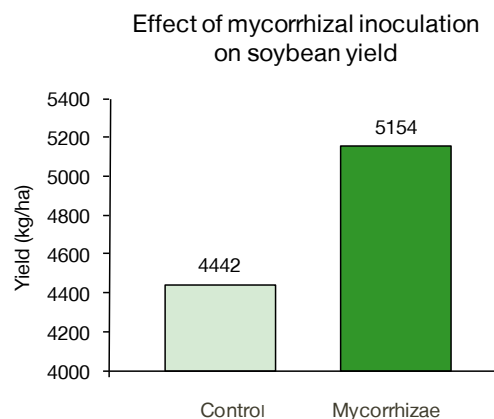


Figure 1
Effect of mycorrhizal inoculation on Soybean yield.

Table 1
Effect of mycorrhizal inoculation on Soybean in Brazil

	<i>Mycorrhizae</i>	Control	Difference with the control
Plant density/ha	250 000	227 788	+ 9.8 %
Pods per plant	57.5	58.8	- 2.2 %
Pods per square meter	1558.8	1 339.3	+ 16.4 %
Grain weight per plant (g)	20.50	19.53	+ 5 %
Yield kg/ha	5 154	4 442	+16 %
Bradyrhizobium root	3 408	1 533	+ 122 %
Nodules per meter of row			