



# IRONMICROBES

## EFFICACY EVALUATION

RESULTS OF USING **IRON**  
SOLUBILIZING BIOSTIMULANT.

**IronMicrobes**, property of Microendo Inc., is a unique and patented biofertilizer in the market, based on the activity of the bacterium *Pseudomonas monteilii*. These bacteria naturally live in the soil near plant roots, where they establish a mutually beneficial relationship (symbiosis) with the roots. **IronMicrobes** bacteria sequester the iron present in the soil ( $Fe^{3+}$ ) by inducing the production of molecules called phytosiderophores. Additionally, the bacteria produce enzymes that protect the plant against abiotic stress (catalases and oxidases). **IronMicrobes** helps to access the iron in the soil that is not available in a biodisponible form for the plant, thereby reducing the costs of iron fertilization.



## LAND INFORMATION

### Location

TUCAN FLOWERS 1 FARM

Cogua via Nemocón

Colombia

### Size

1 complete crop bed

### Analysis design

- The trial was conducted on the Rosa variety Lidia, as it is a variety that easily shows iron deficiencies.
- A dosage of 20 ml was applied over a period of 20 days.
- Foliar samples were analyzed before applying the **IronMicrobes** product, and these were compared with a foliar sample taken 8 days after the third application.

## EFFICACY EVALUATION

Three applications of the product were made using a drench method with a venturi, directed to the substrate or base of the plant, at intervals of 8 days between each application, in a Rosa variety Lidia crop.

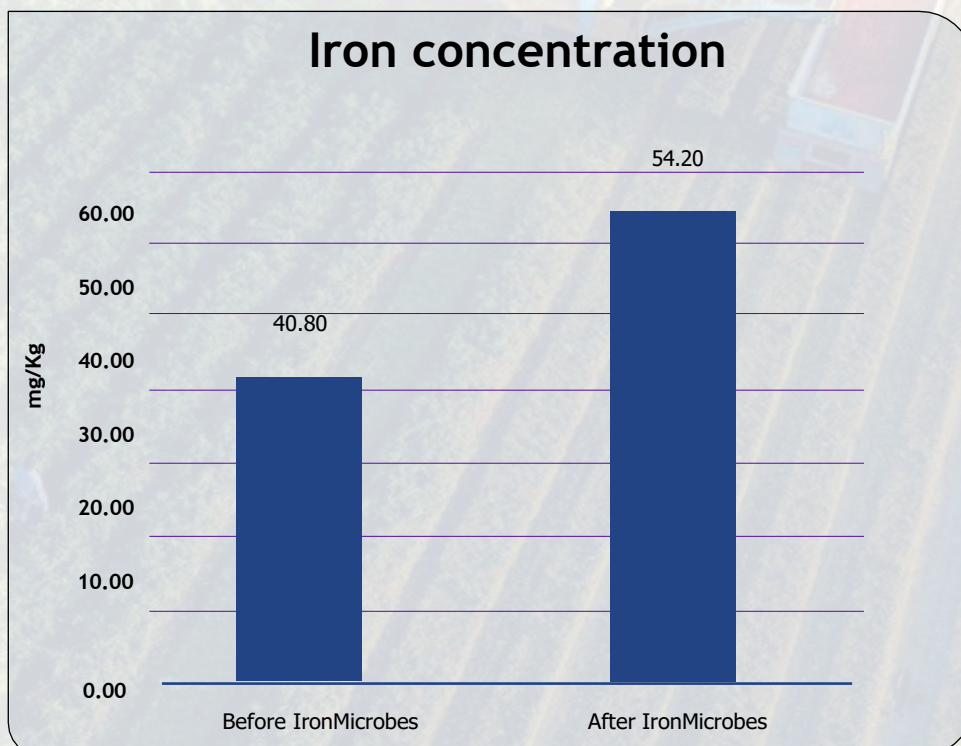
## RESULTS

Table 1 presents the comparison of iron content in leaves before starting the treatment with **IronMicrobes** and the iron content in leaves 8 days after the last application of **IronMicrobes**. As we can see, there is a 32.8% increase in iron uptake after using the product.



Treatment	Iron acquisition concentration
Before using IronMicrobes	40.8 mg/Kg
After using IronMicrobes	54.2 mg/Kg

**Table 1.** Comparative table of iron acquisition concentration before and after using **IronMicrobes**.





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