



# AGAVEMICROBIOTA

## EFFICACY EVALUATION

RESULTS FROM USING BIOFERTILIZER ON AGAVE

**AgaveMicrobiota**, a product of Microendo Inc., is the first product developed from the selection of the best microorganisms obtained from the same *Agave tequilana* plant, making it a patented and unique product on the market. **AgaveMicrobiota** is a bio-inoculant made from a probiotic mix that stimulates the plant growth of *Agave tequilana*. In addition to strengthening the plant's immune system and reducing stress, it restores the original microbiota of the crop.



## FIELD INFORMATION

### Location

Rancho Monte Largo, Ayotlán, Betania delegation (20°34'9"N, 102°26'50"W).

### Size

1 hectare

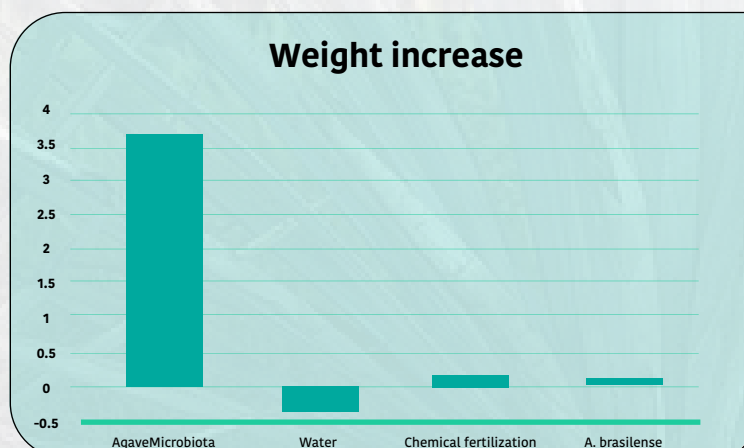
### Analysis Design

- The analysis was conducted by distributing different treatments and comparing the weight of the plants.
- The height of the plants and the increase in new leaves were measured.
- Randomly selected comparative photographs were presented.

## EFFICACY EVALUATION

Annual weight increase comparing the **AgaveMicrobiota** product with water, conventional field nutrition (chemical fertilization), and a commercial biological product (*Azospirillum brasilense*).

Treatment	Weight Increase
<b>AgaveMicrobiota</b>	<b>69.77%</b>
<b>Water</b>	<b>-29.33%</b>
<b>Chemical fertilization</b>	<b>2.49%</b>
<b>A. brasilense</b>	<b>1.79%</b>



**Agave Microbiota** increased the weight of treated plants by **3.649 g**, which corresponds to a **69.77%** increase compared to the initial weight.

In contrast, plants treated with chemical fertilization and *A. brasilense* increased by only **0.032 g** and **0.01966 g**, corresponding to **2.49%** and **1.79%** of the initial plant weight, respectively.









Finally, the plants treated with water showed no weight increase; instead, there was a mass loss of **0.2953 g** compared to the initial weight.



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Treatment	Before	After
AgaveMicrobiota		
Water		
Chemical fertilization		
<i>A. brasilense</i>		

The height and average number of leaves of plants treated with **AgaveMicrobiota** were also measured and compared with those treated with water, chemical fertilization, and *A. brasilense*.

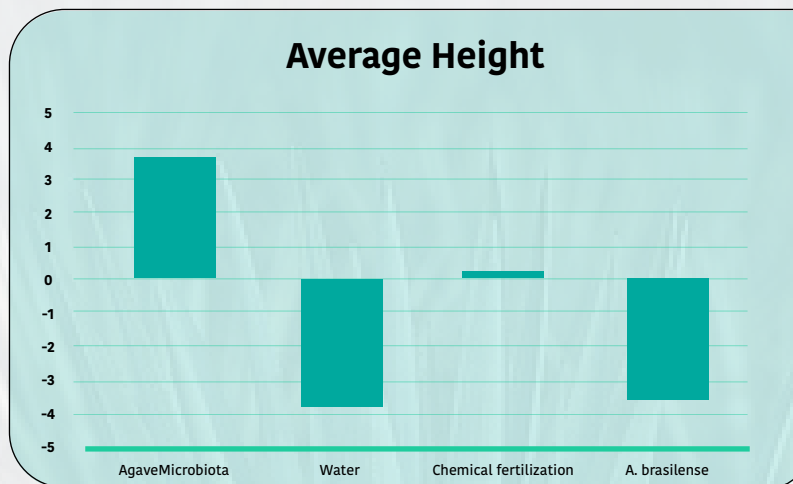


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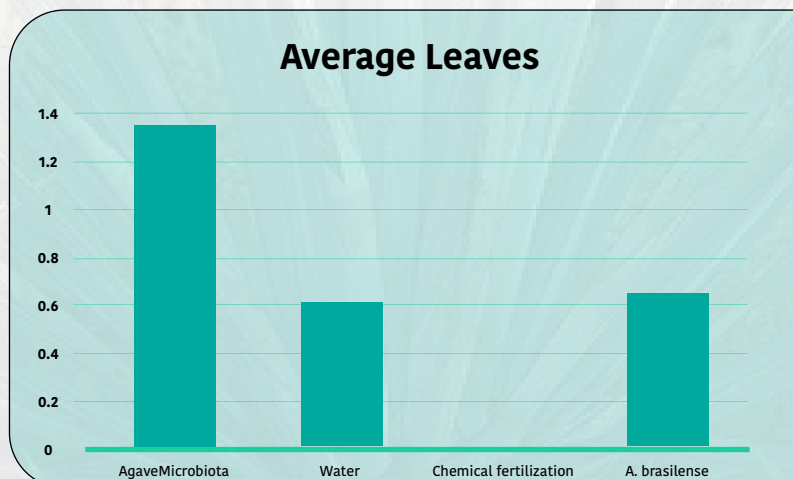
## EFFICACY EVALUATION

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Treatment	Height Increase	Leaf Increase
AgaveMicrobiota	32.43%	30.7%
Water	-42.59%	0%
Chemical fertilization	3.99%	0%
<i>A. brasilense</i>	-35.99%	28.57%



Plants treated with **AgaveMicrobiota** showed an increase in height of **3.83 cm**, followed by the chemical fertilization treatment, which exhibited an increase of **0.33 cm**. Conversely, the water and *A. brasilense* treatments resulted in decreases of **3.83 cm** and **3.5 cm**, respectively.





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Plants treated with **AgaveMicrobiota** showed an average increase of **1.33** more leaves after treatment, followed by the *A. brasilense* treatment, which exhibited an average increase of **0.66** more leaves. The treatments with water and chemical fertilization did not produce any additional leaves after treatment.

### Conventional



### AgaveMicrobiota





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## FIELD INFORMATION

### Location

20°50'34"N, 103°44'46"W  
El Bajio, Amatitán, Jalisco

### Size

1 hectare

### Analysis Design:

- The trial was conducted on 1-year-old *Agave tequilana* Weber.
- A dosage of 1 liter per hectare was used.
- The increase in plant weight was analyzed.
- Untreated agaves were left as controls.

## EFFICACY EVALUATION

Three applications were carried out with an interval of 1 month between applications. The product was applied by drench, injecting the product at the base of the plant, adding 333 mL of each component of the **AgaveMicrobiota** product per application. The weight increase in the agaves was analyzed, using 10 plants per treatment as the sample subjects.

## RESULTS

Table 1 presents the comparison of the average weight increase of the plants after applying the treatment with **AgaveMicrobiota**. As we can observe, the plants treated with **AgaveMicrobiota** generated **31.80%** more weight increase compared to the controls.



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Treatment	Average final weight
Control	666.5 g
AgaveMicrobiota	878.5 g

**Table 1.** Comparative table of the weight increase of control plants versus plants treated with **Agave Microbiota**.

