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# INFLUENCE AND EFFECTS OF AGROSTEMIN® APPLICATION ON CHUCHU PLANT UNDER THE CONDITIONS OF ORGANIC PLANT PRODUCTION

(Sechium edule)





Location: Good Hope Village centre – Federal Region, Brazil

Place: Vida Verde Farm

Owner: Valdir Manoel de Oliveria

Time of implementation: May 2011

### **Testing methodology**

Treatment with AGROSTEMIN® was carried out on one-off basis, foliar, with standard quantity of 30 g per hectare. Fifteen days following the transplanting the seedlings were sprayed entirely, both the leaves and stems.

The total surface area of 250 square meters was treated with 0.75 g of AGROSTEMIN®, in other words: 16 plants – four rows with 4 plants in each row respectively. The control surface area was of the same size and with the same plant layout. Four plots were monitored with 16 treated plants and four plots with the same number (16) of untreated plants.

The first harvesting was on July 28, 2011. The total of 11 harvests was achieved, approximately one a week, the last being on September 20, 2011.

Weighing of differences in yield between the treated and untreated plants was carried out based on the number and mass of harvested fruits, individually per each picking and collectively at the end of the experiment.



# **TESTING PLOT**





## **RESULTS**

The results are shown in the following table:

	Date of	<b>AGROSTEMIN</b> ®		Control	
	harvesting	number of picked fruits	mass (g)	number of picked fruits	mass (g)
i	26.07.2011.	61	20.900	23	11.700
ii	03.08.2011.	21	7.100	11	5.500
Ш	08.08.2011.	17	6.100	12	4.500
iv	11.08.2011.	13	4.000	9	3.900
V	16.08.2011.	11	5.500	8	4.300
vi	19.08.2011.	15	6.300	10	5.000
vii	24.08.2011.	12	3.000	8	2.000
viii	30.08.2011.	14	3.500	6	1.500
ix	07.09.2011.	20	2.500	15	2.200
X	13.09.2011.	10	2.000	6	1.500
xi	20.09.2011.	26	4.700	13	3.100
	Total	220	65.600	121	45.200



10m

x x x x

x x x x

**TREATED** 

(250m<sup>2</sup>)

**CONTROL** 

(250m<sup>2</sup>)

25m

x x x x

 $x \quad x \quad x \quad x$ 

**Protective** 

zone

2m

x x x x

 $x \quad x \quad x \quad x$ 

25m

x x x x

 $x \quad x \quad x \quad x$ 

### **PICKED FRUITS**

**Total number** Total mass (kg)

**CONTROL AGROSTEMIN® CONTROL AGROSTEMIN®** 121 220

45,20 65,60

Increase of picked	kg	20,40	
fruits mass	%	45,13	
Increase of	kom.	99	
number of fruits	%	81,80	



#### **Important Note:**

In principle, the plants treated with AGROSTEMIN® were more developed than those which were untreated.

In the course of harvesting, it was noticed that 7 out of 16 untreated tendrils of test plants stopped bearing fruits and showed a strong tendency of falling behind. At the same time, only 3 out of 16 tendrils of experimental plants which were treated with AGROSTEMIN® were falling behind and stopped bearing fruits during the experiment.

The occurrence can be ascribed to a long period of drought (from May to September) which affected this region and consequently the chuchu plants. This is why the mean yield of chuchu decreased for approx. 54% in comparison with the average yield from previous years. In any case, we can conclude that the treatment with AGROSTEMIN® made the plants better resistant to drought.





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