AGROSTEMIN

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THE EFFECT OF FOLIAR APPLICATION OF AGROSTEMIN ON ONION PLANT
(I experiment – Result analysis)

(Allium cepa)

The experiment was conducted in the municipality Baraúnas – RN Brazil.

Type IPA 11 was used.

AGROSTEMIN® was applied to onion garden beds by spraying water solution eight days following the sowing in concentration of 30g per hectare.

END OF SEASON:

Onion was picked on the 122nd day from the seeding

CONTROL

TREATED

Picking / Separation / Categorization the onion

CONTROL

With AGROSTEMIN®

The comparison was made in such a way that the first two identical (non-neighboring) areas – garden beds were determined, each 90 m long and 0.5 m wide, and AGROSTEMIN® was applied on one (the other was control garden bed – untreated). The entire yield from each of them was collected individually, the bulbs separated, put into bags and measured per categories, as it can be seen from the table. Onions are classified according to the bulb size into the following categories: Type 01 – small, Type 02 – medium, Type 03 – large and Type 04 – extra large.

The yield from a 90 m x 0.5 m garden bed

CATEGORY (bulbs)	CONTROL (kg)	AGROSTEMIN (kg)	CONTROL (bags of 20 kg each)	AGROSTEMIN (bags of 20 kg each)
TYPE 1 (small)	6	7	0,3	0,35
TYPE 2 (medium)	44	60	2,2	3
TYPE 3 (large)	470	540	23,5	27
TYPE 4 (extra large)	96	60	4,8	3
TOTAL	**616**	**667**	**30,8**	**33,35**

Based on the data from the previous one, the table below was made with the results sorted per categories and the yield reduced to the area of one hectare. It can be seen that the total yield increased by 8.28% when AGROSTEMIN® was used, i.e. 2,830 kg/ha (141 bags of 20 kg each).

Reduced to the yield per hectare

CATEGORY (bulbs)	CONTROL (kg/ha)	AGROSTEMIN (kg/ha)	CONTROL (bags of 20 kg/ha)	AGROSTEMIN (bags of 20 kg/ha)
TYPE 1 (small)	333,3	388,9	16,7	19,4
TYPE 2 (medium)	2.444,4	3.333,3	122,2	166,7
TYPE 3 (large)	26.111,1	30.000,0	1.305,6	1.500,0
TYPE 4 (extra large)	5.333,3	3.333,3	266,7	166,7
TOTAL	**34.222,22**	**37.055,56**	**1.711,11**	**1.852,78**
Gain		**2.833,33**		**141,67**

The structure of increase of total yield (8.28%) per categories

CATEGORY (bulbs)	GAIN (per hectare)		
	kg	bags of 20 kg	%
TYPE 1 (small)	55,6	2,8	16,7
TYPE 2 (medium)	888,9	44,4	36,4
TYPE 3 (large)	3.888,9	194,4	14,9
TYPE 4 (extra large)	-2.000,0	-100,0	-37,5
TOTAL	**2.833,33**	**141,67**	**8,28 ***

* total yield increased by 8.28 %

It is important to point out the economic aspect of the differences obtained. Only Types 02, 03 and 04 are of market value, whereas the highest price is achieved by Type 03. Type 04 achieves the lowest value (extra large bulbs) because there is less demand for this type. Economic interest of onion producers is for Type 04 to be as low represented as possible and to have types 02 and 03 represented as much as possible since they are more profitable financially.

Based on the final analyses, it turns out that the application of **AGROSTEMIN®** led not only to the increase of the entire yield but also to the change of its structure. The representation of Type 02 bulbs increased by 36.4% and Type 03 by 14.9%, when compared with the control group. Although the representation of Type 04 is reduced by 37.5%, the entire yield increased by 8.28%, whereas the increase in total consisted of financially more lucrative categories and on the account of Type 04.

Greater representation of Types 02 and 03 respectively, and lower representation of Type 04 result in that the producers get the onions of better quality and make a better position at the market, and thus achieve more financial gain as well.

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