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## PARANÁ 2012 Vicinity of the town Curitiba

### **EFFECTS OF AGROSTEMIN® APPLICATION ON TOMATO**

(Solanum lycopersicum – "San Marzano")





Demonstration experiment was conducted in the vicinity of the town Curitiba, Federal State Parana – Brazil in the course of 2012.

#### **EXPERIMENTAL METHOD**

The treated part of the experimental plot " $T_{00}$ " consisted of three rows of tomato, 130 plants in each row at the distance of 65 cm between them and with the distance of 1 m between the rows.

Two areas were taken as control, " $C_{01}$ " i " $C_{02}$ ", each respective plot completely identical to the treated part of the experimental plot (the number and lay out of rows and the plants in a row).

Treatment with **AGROSTEMIN**<sup>®</sup> was foliar, with **AGROSTEMIN**<sup>®</sup> – "green" formula water solution (300 g/ha) in the concentration of 15 g on 1,000 m<sup>2</sup> (150 g/ha), twice:

- ❖ First time: January 19, 2012 (17 days after transplatation)
- Second time: March 02, 2012 (15 days after the first application ).

Back sprayer was used for **AGROSTEMIN®** water solution spraying. The leaves of each plant were sprayed individually, going along the row.







## **Second time application**













#### Collection of the data and processing of the results

Harvesting began on March 23, 2012 – 64 days after the first application of **AGROSTEMIN**<sup>®</sup>.

Complete with the harvest of May 25, 2012, there were 28 harvests in total. Then, based on the condition of the plants at that moment, it was estimated that there would be two more harvests by the end of the season.

It is noticed that within each harvesting individually variant " $T_{00}$ " (a part of experimental plot treated with AGROSTEMIN®) was always superior in comparison with the control areas (" $K_{01}$ " i " $K_{02}$ ") in respect of the quantity of collected ripe fruit.

#### CONCLUSION

Final analysis of the data suggests that the tomato plants treated with **AGROSTEMIN®** in comparison with the tomato plants on control area " $\mathbf{K_{01}}$ "were considerably more productive – for **28%**, in other words more productive for **29.20%** than those on the control surface " $\mathbf{K_{02}}$ ", which can be seen in the table that follows. The values in the table are the values for individual harvests per plots, reduced to 1 ha of surface area under tomato.

#### **MEASUREMENT RESULTS**

**AGROSTEMIN** 

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(reduced to 1 ha of surface area)

Nº	Date of picking	<b>T <sub>00</sub>*</b> ( kg )	C ** ( kg )	C ** ( kg )	Nº	Date of picking	<b>T<sub>00</sub>*</b> ( kg )	C <sub>01</sub> ** ( kg )	C <sub>02</sub> ** ( kg )
1.	23/03/2012	391	382	386	15.	16/04/2012	417	396	392
2.	24/03/2012	562	490	484	16.	17/04/2012	519	408	414
3.	26/03/2012	784	612	620	17.	19/04/2012	413	312	301
4.	28/03/2012	728	714	710	18.	20/04/2012	418	289	281
5.	30/03/2012	698	620	614	19.	23/04/2012	389	284	274
6.	02/04/2012	720	512	488	20.	27/04/2012	379	221	210
7.	04/04/2012	766	584	581	21.	30/04/2012	414	312	320
8.	05/04/2012	680	421	414	22.	02/05/2012	486	329	331
9.	07/04/2012	622	442	428	23.	04/05/2012	472	421	419
10.	09/04/2012	681	423	419	24.	11/05/2012	412	401	398
11.	10/04/2012	417	406	411	25.	14/05/2012	376	221	228
12.	11/04/2012	286	214	220	26.	21/05/2012	312	211	221
13.	13/04/2012	328	317	311	27.	23/05/2012	214	198	<b>176</b>
14.	14/04/2012	188	119	111	28.	25/05/2012	188	99	101

<sup>\*&</sup>quot;T<sub>00</sub>" – **Treated:** foliar application of **AGROSTEMIN**®–"green" formula (300 g/ha), twice, water solution of **AGROSTEMIN**® in the proportion which corresponds to the dose of 15 g on 1,000 m<sup>2</sup> (150 g/ha);

Note: All three experimental areas ("T<sub>00</sub>";"C<sub>01</sub>"; "C<sub>02</sub>") are identical and consist of three rows with 130 plants in each row; the density of planting in a row is at 65 cm, the distance between rows is 1 m.

<sup>\*\* &</sup>quot;C<sub>01</sub>"; "C<sub>02</sub>" – Control: untreated – AGROSTEMIN® was not applied.



#### **COLLECTIVE REVIEW OF THE RESULTS**

(reduced to 1 ha of surface area)

Total yield and increase of yield per plot treated with AGROSTEMIN<sup>®</sup> ( $T_{00}$ ) in comparison with control plots ( $C_{01}$ ;  $C_{02}$ ), respectively

# Total quantity of fruits\*\* (reduced to 1 ha of surface area)

Variant	T 00*	C 01**	C 02**
( kg )	13,260	10,358	10,263
(crates*)	602	470	466

- \* 1 crate = 20 kg;
- \*\* for 28 pickings, reduced to 1 ha of surface area;

# Increase (reduced to 1 ha of surface area)

Variant	T 00 > K 01	T <sub>00</sub> > K <sub>02</sub>	
( kg )	+2,902	+2,997	
(crates*)	+132	+136	
(%)	+28.00	+29.20	

\* 1 crate = 20 kg;

- \* "T<sub>00</sub>" Treated: foliar application of AGROSTEMIN®—"green" formula (300 g/ha), twice, water solution of AGROSTEMIN® in the proportion which corresponds to the dose of 15 g on 1,000 m<sup>2</sup> (150 g/ha);
- \*\* "C<sub>01</sub>"; "C<sub>02</sub>" Control: untreated AGROSTEMIN® was not applied;

Note: All three experimental areas ("T<sub>00</sub>";"C<sub>01</sub>"; "C<sub>02</sub>") are identical and consist of three rows with 130 plants in each row; the density of planting in a row is at 65 cm, the distance between rows is 1 m.





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