



AMISTEL AGRO

FINAL REPORT OF CORN PROJECT
SANTA FELICIA FARM

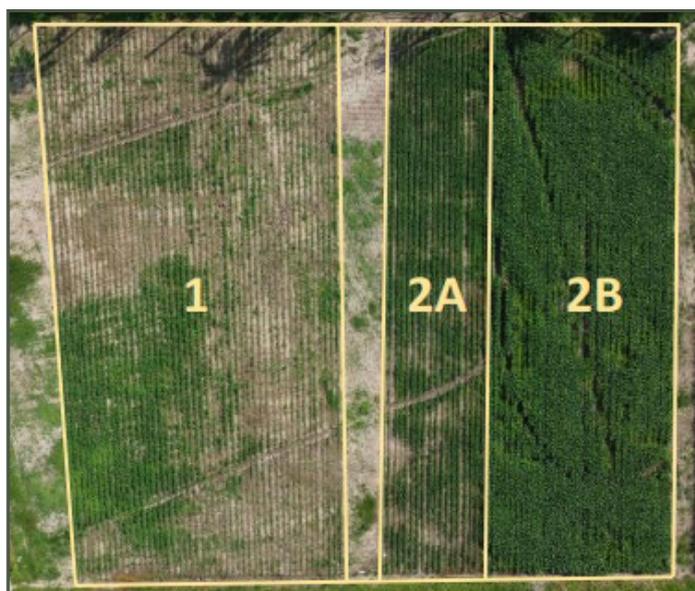
Good
things
grow

FINAL REPORT OF CORN PROJECT

SANTA FELICIA FARM

Farmer: Edgar Antonio Guerrero
Company: Palmares HDB
Type of Production: Corn
Trial Land: 0.98 ha
Visiting Location: Aracataca, Magdalena
Location: 10.60780° N, 74.21132° W
Altitude: 34.93 m.a.s.l.
Test Site Measurement: 9,800 m2 total

Image 1. General photo of the Corn Project. 1st visit carried out on June 02, 2022.



Lot 1: Hybrids seeds.
 Germinated on May 17, 2022.
 16 days of germination.

Lot 2A: Transgenic seeds.
 Germinated on May 12, 2022.
 21 days of germination.

Lot 2B: Transgenic seeds.
 Germinated on May 04th 2022.
 29 days of germination.

On May 26th, 2022, product placement began under the previously established protocols. The crops had:

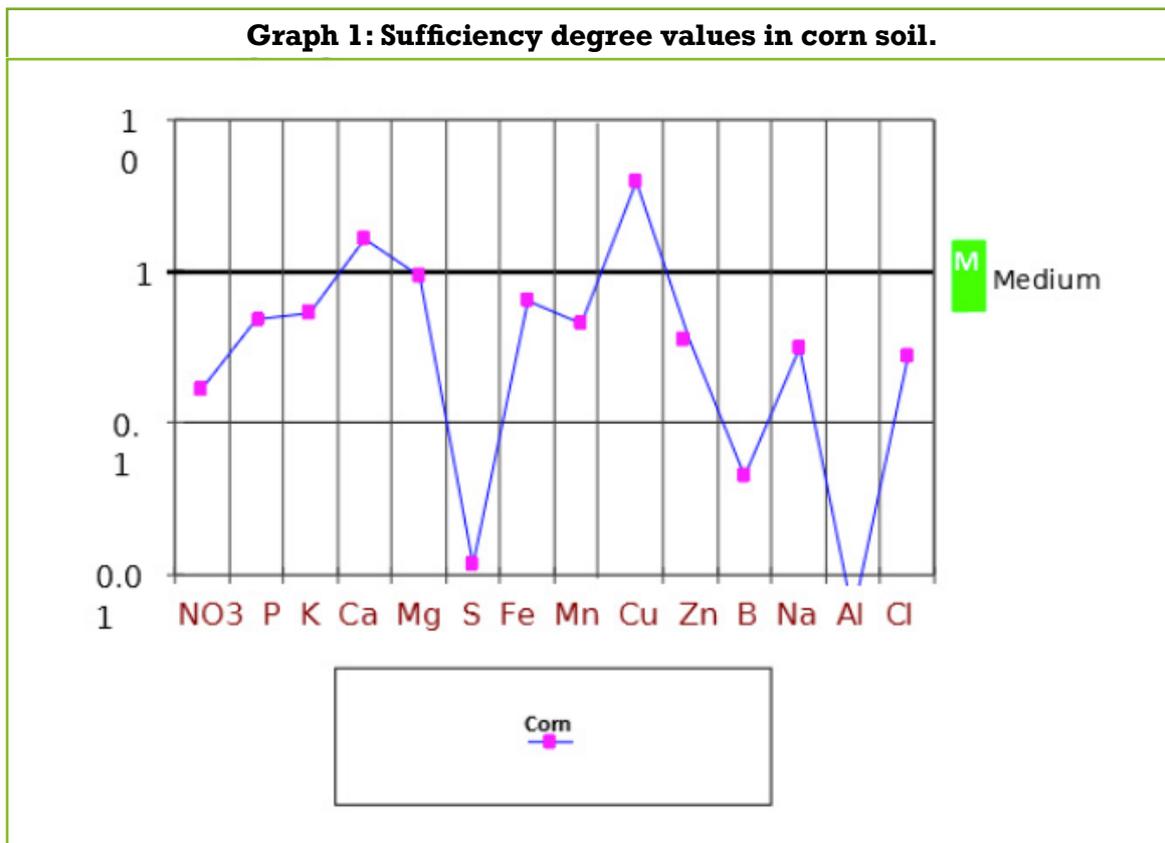
Table 1: Days of germination of seeds at product placement.

LOT'S	DAYS OF GERMINATION
Lot 1 Seeds	9
Lot 2A Seeds	14
Lot 2B Seeds	22



3 protocol projects were carried out due to different seed placement times. Research was carried out on the different ways the crop reacts after 22 days of germination. Comparisons were made between the two different seed types. (Hybrid and Transgenic).

Before starting, it was decided to conduct soil analyses, which resulted in the following data:



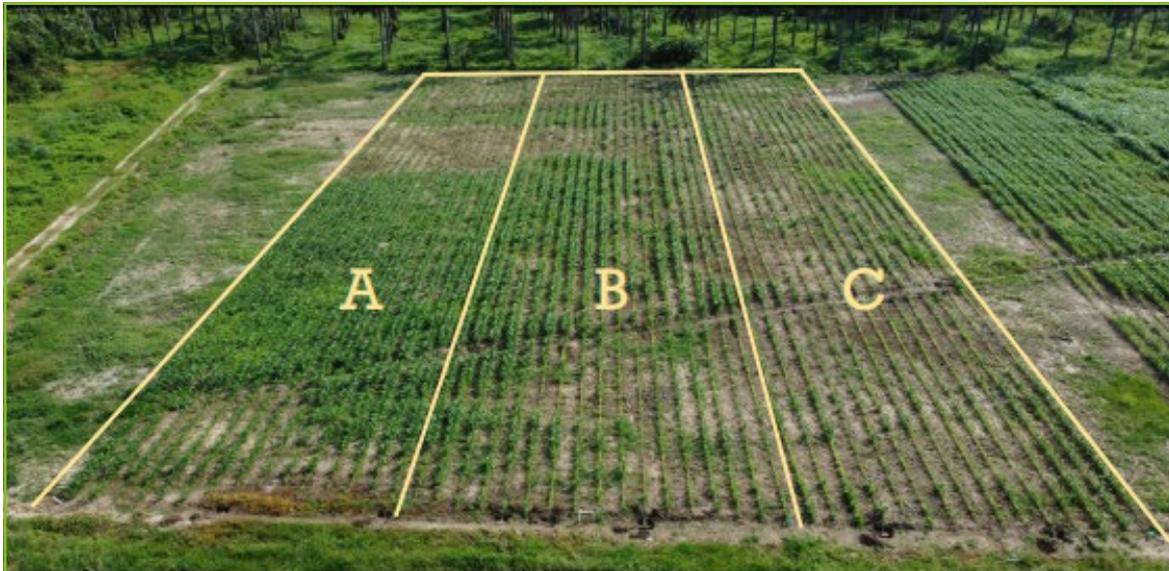
Graph obtained from soil analysis performed at Dr. Calderón Labs, Av Cra. 20 No. 87 - 81 - Bogotá D.C.
Tel: 6222687, 6225567- WhatsApp: 320-4936197 - Web Site: www.drcalderonlabs.com

As can be seen in the graph above, there is a high concentration of copper and calcium, and a deficiency of aluminum and sulfur.



The farmer manages his own drip irrigation system and his fertilization system, which have not been modified or eliminated in conjunction with Amstel Agro's product. This research lasted 56 days with a total of 9 weekly applications. Weekly data was collected to make the comparisons of the 3 projects. For this type of production, it was recommended to conduct the research using the SF-Y product, using the control group and two different concentrations. This is demonstrated in the following image:

Batch 1 project. Demonstration of division of the 3 different research protocols, with A as the control group.





Protocol A is the control group, protocol B the 0.1% group and protocol C the 0.2% group. The formulas proposed for this research were as follows:

LOT 1 (Hybrid)

PROTOCOL B: 0,1% OF AMSTEL AGRO SF-Y

FREQUENCY	ML OF PRODUCT	ML TOTAL
WEEKLY	1 ml of product for each 1,000 ml of water	7,82 ml of product in 7820 ml of water / 1.700 m2

PROTOCOL C: 0.2% OF AMSTEL AGRO SF-Y

FREQUENCY	ML OF PRODUCT	ML TOTAL
WEEKLY	2 ml of product per 1,000 ml of water	15,64 ml of product in 7820 ml of water / 1.700 m2

LOT 2A (Transgenic)

PROTOCOL B: 0.1% OF AMSTEL AGRO SF-Y

FREQUENCY	ML OF PRODUCT	ML TOTAL
WEEKLY	1 ml of product for each 1,000 ml of water	2,88 ml of product in 2875 ml of water / 625 m2

PROTOCOL C: 0.2% OF AMSTEL AGRO SF-Y

FREQUENCY	ML OF PRODUCT	ML TOTAL
WEEKLY	2 ml of product per 1,000 ml of water	5,75 ml of product in 2875 ml of water / 625 m2

LOT 2B (Transgenic)

PROTOCOL B: 0.1% OF AMSTEL AGRO SF-Y

FREQUENCY	ML OF PRODUCT	ML TOTAL
WEEKLY	1 ml of product for each 1,000 ml of water	4,8 ml of product in 4.793,2 ml of water / 1042 m2

PROTOCOL C: 0.2% OF AMSTEL AGRO SF-Y

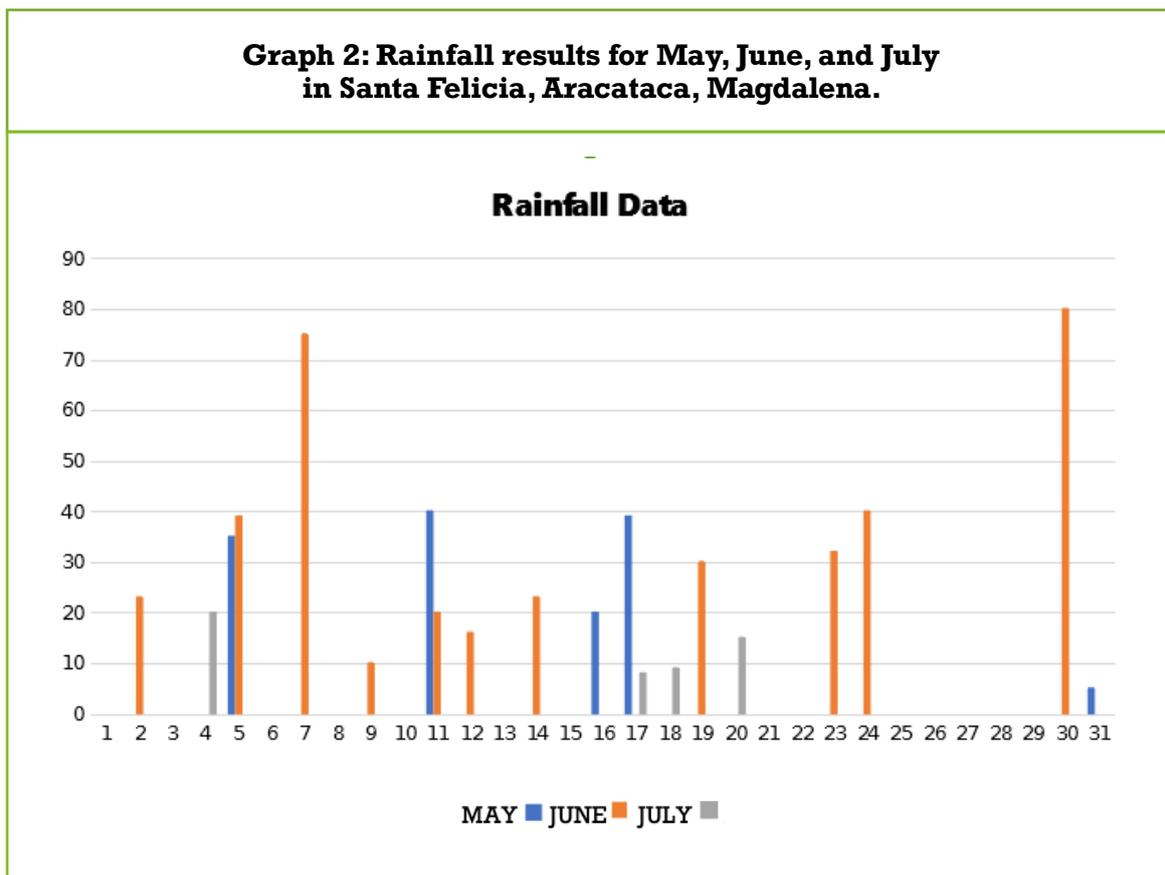
FREQUENCY	ML OF PRODUCT	ML TOTAL
WEEKLY	2 ml of product per 1,000 ml of water	9,6 ml of product in 4.793,2 ml of water / 1042 m2



Once the crop surpassed a height of 160 cm, the amount of water should be doubled continuing with the assigned concentration. This occurred after 35 days of germination.

In the whole process, a total of 579 mm³ was obtained in 3 months of investigation (in the IDEAM record of the year 2021 in the period of May June and July, 296 mm³ were obtained at the PADELMA weather station, (29065020).

The following graph shows the division of data:





The following is a demonstration of the results obtained in each visit to demonstrate the significant differences in the 3 different protocols of the 3 selected projects. It is worth mentioning that the farmer informed us that his previous harvest was approximately 45 tons/hectare.

1ST VISIT 09/06/2022

On June 7, 75 mm³ was obtained in the rain gauge, notifying that there was a loss of some plants in Lot 2B due to a storm, as can be seen in the image below. These weighing results gave a total of 473 kg of biomass. These were destined for baling and use as silage.

Image 3, 4 and 5.

Evidence of damage during the storm of 07/06/2022. Lot 2B



LOT 1 (Hybrid)

In this lot, a lack of continuous growth and problems in certain areas of yellowing and slow plant growth. The seed was then reported to have had a pesticide applied at the beginning of its germination two consecutive times and it was later associated that the seed was weak to external factors and damage easily, where it continued to occur until harvest time.



Image 6. Batch 1 with 22 days of testing, showing the 3 groups of the protocol and their mentioned damages. Lack of growth is identified in the selected areas due to the placement of the wrong product and at early times.



TABLE 3: PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF PLANTATIONS IN LOT 1

Characteristics	Protocol A	Protocol B	Protocol C
Height	75 cm	82 cm	71 cm
Width	6,5 cm	7,4 cm	6,9 cm
No. of Leaves	7	10	10

Image 7, 8 and 9. Photographic evidence of protocols A, B and C. Still in growth, higher volume is identified in Group C than in Group B and A.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**





LOT 2A (Transgenic)

1ST VISIT 09/06/2022

Image 10. Batch 2A with 27 days of germination showing the 3 groups of the protocol.
Differences in growth are identified in the 3 groups.



TABLE 4. PHENOTYPIC CHARACTERISTICS OF THE GROWTH OF THE PLANTATIONS OF LOT 2A

Characteristics	Protocol A	Protocol B	Protocol C
Height	82 cm	89 cm	92 cm
Width	8,2 cm	8,6 cm	9,5 cm
No. of Leaves	9	10	13

Images 11, 12, 13. Photographic evidence of protocols A, B and C.
No significant differences are identified.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**





LOT 2B (Transgenic)

1ST VISIT 09/06/2022

Images 14. Batch 2B with 35 days of germination showing the 3 groups of the protocol. Spaces with a lack of growth are identified. The damage caused by the first storm and the losses obtained.

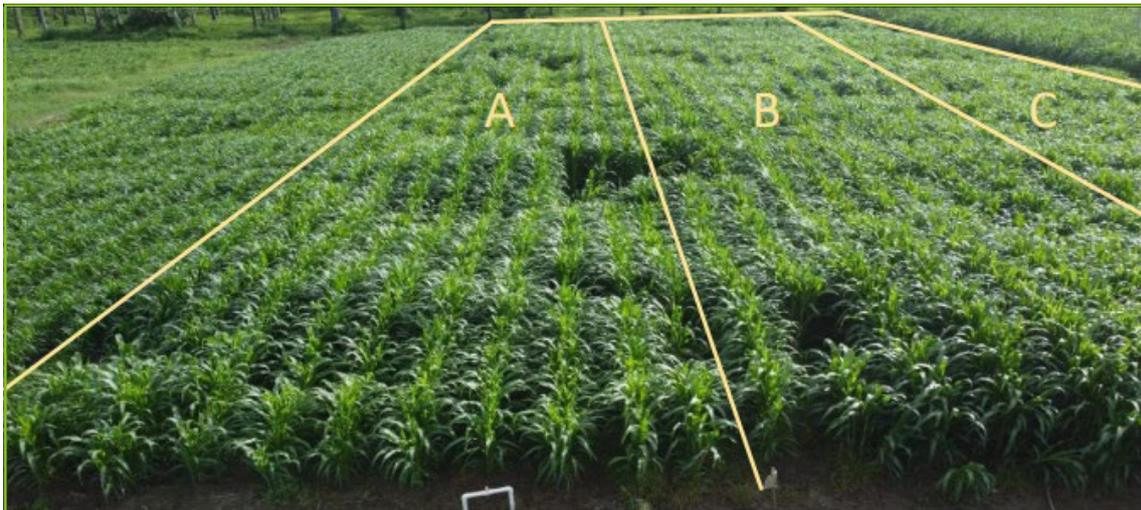


TABLE 5. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF THE PLANTATIONS OF LOT 2B

Characteristics	Protocol A	Protocol B	Protocol C
Height	169 cm	191 cm	188 cm
Width	8,2 cm	8,6 cm	9,5 cm
No. of Leaves	10	13	15

Images 15, 16, 17. Photographic evidence of protocols A, B and C. Group C is evident with more striking color and better volume.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**





LOT 1 (Hybrid)

2ND VISIT 16/06/2022

Photograph of Batch 1 with 29 days of testing showing the 3 groups of the protocol.
The spaces marked represent unstable growth due to product damage.



TABLE 6. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF THE PLANTATIONS OF LOT 1.

Characteristics	Protocol A	Protocol B	Protocol C
Height	135,2 cm	137,6 cm	155,8 cm
Width	8,4 cm	11,8 cm	8,6 cm
No. of Leaves	12,6	13	12,4

Images 19, 20 and 21. Photographic evidence of protocols A, B and C.
Greater volume in group C and better appearance in coloration.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**



LOT 2A (Transgenic)
2ND VISIT 16/06/2022

Image 22. Batch 2A with 34 days of testing with the 3 groups of the protocol.
Different growths are identified in group A.



TABLE 7. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF THE PLANTATIONS OF LOT 2A.

Characteristics	Protocol A	Protocol B	Protocol C
Height	163 cm	175 cm	179 cm
Width	8,4 cm	10,6 cm	11 cm
No. of Leaves	12,4	11,8	12,2

Images 23, 24 and 25. Photographic evidence of protocols A, B and C.
No significant differences are evident.

Control Group A
(No Product)



Protocol Group B
(0,1%)



Protocol Group C
(0,2%)





LOT 2B (Transgenic)

2ND VISIT 16/06/2022

Image 26. Batch 2B with 42 days of germination showing the 3 groups.
Growth differences in groups B and C and more stable growth than group A.



TABLE 8. PHENOTYPIC CHARACTERISTICS OF THE GROWTH OF BATCH 2B PLANTATIONS.

Characteristics	Protocol A	Protocol B	Protocol C
Height	199 cm	215,2 cm	226,6 cm
Width	10,8 cm	12,2 cm	12,2 cm
No. of Leaves	11,6	12,2	12,2

Images 27, 28, 29. Photographic evidence of the protocols A, B and C. Less coloration is identified in group A than in groups B and C. Growth is much higher in group B and C.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**





Image 30, 31. Evidence of size difference between the control group A and the 0.1% B group of Batch 2B.



As you can see, the statistics show a difference of almost 30 centimeters of growth compared to control group A. These groups show a significant difference in volume compared to the height and width measurements.

LOT 1 (Hybrid)
3RD VISIT 06/23/2022

Photograph of Batch 1 with 36 days of testing showing the 3 groups of protocol.
The difference in growth still shows in the selected spaces and lower quality.



TABLE 9. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF THE PLANTATIONS OF LOT 1.

Characteristics	Protocol A	Protocol B	Protocol C
Height	178,1 cm	176,8 cm	181,6 cm
Width	8,5 cm	9,3 cm	13 cm
No. of Leaves	12,4	12	10,1

Images 33, 34, 35. Photographic evidence of protocols A, B and C. Greater pigmentation in groups B and C compared to group A and better growth with more stability.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**



LOT 2A (Transgenic)
3RD VISIT 06/23/2022

Photograph of Batch 2A with 41 days of testing showing the 3 groups of the protocol.
Improved growth is identified in the spaces identified above.

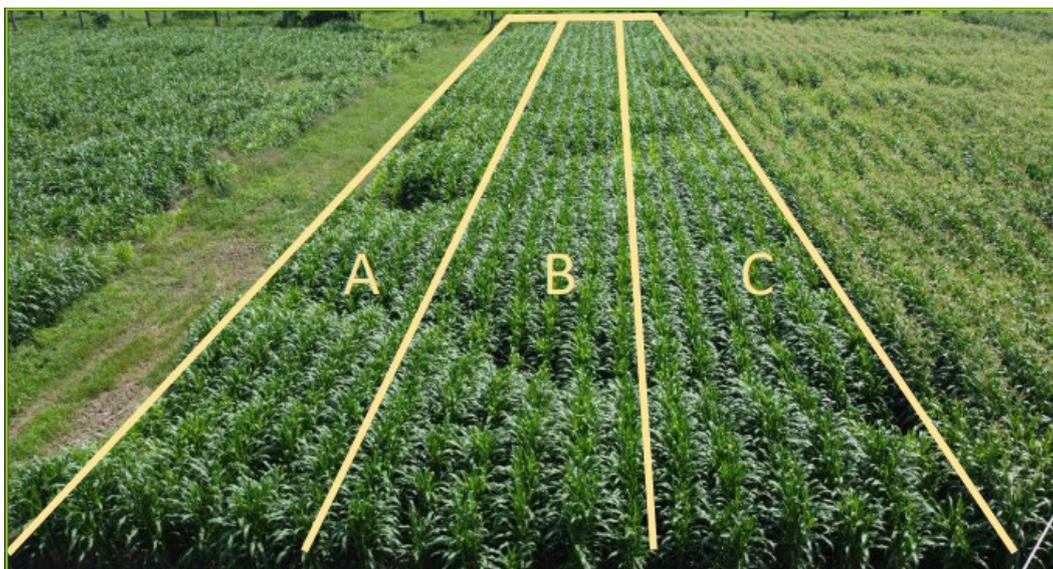


TABLE 10. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF THE PLANTATIONS OF LOT 2A

Characteristics	Protocol A	Protocol B	Protocol C
Height	195,3 cm	208,2 cm	213,9 cm
Width	10,1 cm	10,1 cm	10,5 cm
No. of Leaves	12,4	13,1	13,3

Images 37, 38, 39. Photographic evidence of protocols A, B and C.

The growth is stronger in groups B and C and with better formation and strength than group A.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**





LOT 2B (Transgenic)

3RD VISIT 06/23/2022

Image 40. Batch 2B with 49 days of germination showing the 3 groups of protocol.
The beginning of the growth stage is evident, initiating the formation of cobs.



TABLE 11. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF THE PLANTATIONS OF LOT 2B.

Characteristics	Protocol A	Protocol B	Protocol C
Height	223,7 cm	265,5 cm	268,5 cm
Width	10,2 cm	11,1 cm	11 cm
No. of Leaves	13,3	14	14,9

Images 41, 42, 43. Photographic evidence of the protocols A, B and C.

The faster flowering stage is identified in groups B and C as compared to group A.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**





Image 44. Evidence of the beginning of the flowering stage. It is possible to see the growth of cobs. This began at day 50. In these images it can be identified that better growth and greater presence of flowering in group C on the right side than group A on the left side.



Evidence of size difference between the control group A and the 0.1% B group. The difference in growth between the two groups was between 30 and 50 centimeters. The volume was maintained with the same shape and presented more uniformity.





LOT 1 (Hybrid)

4TH VISIT 07/07/2022

Photograph of Batch 1 with 50 days of testing showing the 3 groups of protocol.

The previous week there was another tropical storm and a loss of 581 kg of biomass was obtained.



TABLE 12. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF PLANTATIONS OF LOT 1. Leaf width is no longer measured once the flowering stage begins, since it does not show differences.

Characteristics	Protocol A	Protocol B	Protocol C
Height	297,8 cm	315,4 cm	306,9 cm
Width	N/A	N/A	N/A
No. of Leaves	12	12	12,5

Images 47, 48, 49. Photographic evidence of protocols A, B and C. Higher pigmentation in group C and more homogeneous growth, as opposed to group A, which presents more variety in growth.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**





LOT 2A (Transgenic)

4TH VISIT 07/07/2022

Photograph of Batch 2A with 48 days of testing showing the 3 groups of protocol.
The beginning of the spike growth stage is initiating the formation of the cobs.

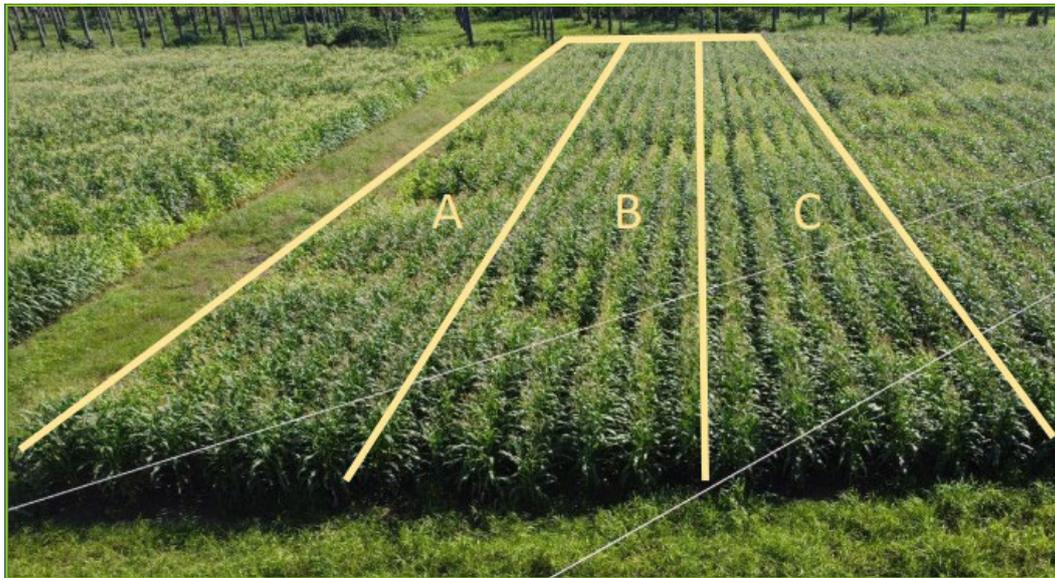


TABLE 13. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF PLANTATIONS OF LOT 2A. Leaf width is no longer measured once the flowering stage begins, since it does not show differences.

Characteristics	Protocol A	Protocol B	Protocol C
Height	312,2 cm	318,8 cm	326,3 cm
Width	N/A	N/A	N/A
No. of Leaves	12	12	12

Images 51, 52, 53. Photographic evidence of protocols A, B and C.
Growth and better pigmentation are identified in group C.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**





LOT 2B (Transgenic)

4TH VISIT 07/07/2022

**Photograph of Batch 2B with 56 days of testing showing the 3 groups of protocol.
Time for harvesting this lot.**



TABLE 14. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF PLANTATIONS OF LOT 2B. Leaf width is no longer measured once the flowering stage begins, since it does not show differences.

Characteristics	Protocol A	Protocol B	Protocol C
Height	324,2 cm	358,1 cm	347,6 cm
Width	N/A	N/A	N/A
No. of Leaves	12	12	12

Images 55, 56, 57. Photographic evidence of protocols A, B and C.
Presence cobs growing with greater volume in groups B and C.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**



LOT 1 (Hybrid)
5TH VISIT 07/14/2022

Photograph of Batch 1 with 57 days of testing showing the 3 groups of protocol.
The ear growth stage begins, with 2 weeks left for harvesting.



TABLE 15. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF PLANTATIONS OF LOT 1.
Leaf width is no longer measured once the flowering stage begins.

Characteristics	Protocol A	Protocol B	Protocol C
Height	314,2 cm	332,4 cm	345,8 cm
Width	N/A	N/A	N/A
No. of Leaves	12	12	12

Images 59, 60, 61. Photographic evidence of protocols A, B and C.
Better pigmentation can be seen in groups B and C and greater height.

Control Group A
(No Product)



Protocol Group B
(0,1%)



Protocol Group C
(0,2%)





LOT 2A (Transgenic)

5TH VISIT 07/14/2022

Photograph of Batch 2A with 55 days of testing showing the 3 groups of protocol.
The crop is identified one week after harvest with depigmentation in different groups.



TABLE 16. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF PLANTATIONS OF LOT 2A. Leaf width is no longer measured once the flowering stage begins since there are no differences in growth after the flowering stage.

Characteristics	Protocol A	Protocol B	Protocol C
Height	328,5 cm	352,6 cm	368,4 cm
Width	N/A	N/A	N/A
No. of Leaves	12	12	12

Images 63, 64, 65. Photographic evidence of protocols A, B and C. The root is identified as much more elongated in group A, losing greener in comparison compared to groups B and C.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**



LOT 2B (Transgenic)
5TH VISIT 07/14/2022

Photograph of Batch 2B with 63 days of testing showing the 3 groups of protocol. The start of harvest is on July 14, 2022. It took 2 days to harvest due to complications with the machinery.



TABLE 17. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF PLANTATIONS OF LOT 2B. Leaf width is no longer measured once the flowering stage begins since it does not show any differences in growth.

Characteristics	Protocol A	Protocol B	Protocol C
Height	348cm	360,5 cm	373,6 cm
Width	N/A	N/A	N/A
No. of Leaves	12	12	12

Images 67, 68, 69. Photographic evidence of protocols A, B and C.

Greater stability seen in stem in groups B and C presenting greater volume and better height.

Control Group A
(No Product)



Protocol Group B
(0,1%)



Protocol Group C
(0,2%)





LOT 1 (Hybrid)

6TH VISIT 07/21/2022

Photograph of Batch 1 with 64 days of testing showing the 3 groups of protocol. Harvesting is performed after 2 days. This harvest was carried out 1 week ahead of time due to the management of working personnel (Batch 1 and Batch 2A).



TABLE 18. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF LOT 1 PLANTATIONS. The non-measurement of leaf width is maintained. The number of leaves remains the same, since it does not show more leaf growth and more focused on ear production.

Characteristics	Protocol A	Protocol B	Protocol C
Height	350,2 cm	362,5 cm	368,4 cm
Width	N/A	N/A	N/A
No. of Leaves	12	12	12

Images 71, 72, 73. Photographic evidence of protocols A, B and C.

Significant differences between the volume of group C and group B and A are identified.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**



LOT 2A (Transgenic)
6TH VISIT 07/21/2022

Photograph of Batch 2A with 62 days of testing showing the 3 groups of protocol.
Harvesting was performed after 2 days.

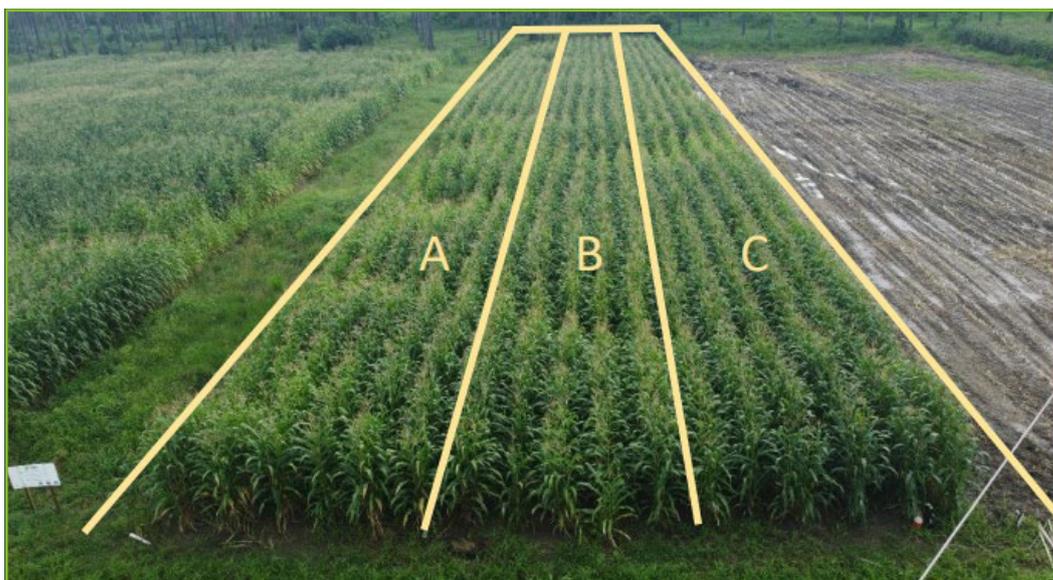


TABLE 19. PHENOTYPIC CHARACTERISTICS ON THE GROWTH OF THE PLANTATIONS OF LOT 2A PLANTATIONS. The non-measurement of leaf width is maintained, more focused on ear production.

Characteristics	Protocol A	Protocol B	Protocol C
Height	332,6 cm	356,2 cm	370,5 cm
Width	N/A	N/A	N/A
No. of Leaves	12	12	12

Images 75, 76, 77. Photographic evidence of protocols A, B and C. Greater volume in group C is visible compared to group A with greater vitality and stability in group B and C.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**



**REFERENCES OF PHOTOGRAPHIC EVIDENCE OF THE CORN IN
FULL GROWTH IN EACH GROUP.**

4TH VISIT 07/07/2022

Images 78, 79, 80. Comparative photographic evidence of corn from protocols A, B and C of Lot 2A. The comparison of the different ears in growth with greater quantity and maturity of the product, in group B and C compared to group A.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**



Images 81, 82, 83. Comparative photographic evidence of corn from protocols A, B and C of Lot 2B. It is possible to identify greater ear size in group C and better length in group B.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**





5TH VISIT 07/14/2022

Images 84, 85, 86. Comparative photographic evidence of maize from protocols A, B and C of Lot 2A. The growth of the cobs of group C presented higher volume and better growth than group A.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**



Images 87, 88, 89. Comparative photographic evidence of maize from protocols A, B and C of Lot 2B. Group A shows less pigmentation and stability than groups B and C. Group C shows higher growth volume compared to group A.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**





Table 20. Phenotypic data obtained from the measurements of the planting and the ears of cobs of each lot with their respective protocols.

LOTS 1	PROTOCOLS	MEASUREMENTS	MEASUREMENTS	WEIGHTS	WEIGHTS	HEIGHT
		LENGHT CM	CIRCUMFERENCE CM	WEIGHTS WITH LEAF	WEIGHTS NO LEAF	PLANT CM
	A1	30	17	254	179	303
	A2	27	16	245	186	285
	B1	32	19	325	210	297
	B2	30	18	344	225	294
	C1	33	19	402	324	305
	C2	30	18,5	332	207	309

LOTS 2A	PROTOCOLS	MEASUREMENTS	MEASUREMENTS	WEIGHTS	WEIGHTS	HEIGHT
		LENGHT CM	CIRCUMFERENCE CM	WEIGHTS WITH LEAF	WEIGHTS NO LEAF	PLANT CM
	A1	24	16	205	120	271
	A2	22	14	188	117	274
	B1	25	16	245	163	275
	B2	22	16,5	234	143	279
	C1	28	18	296	189	273
	C2	28	18	284	191	285

LOTS 2B	PROTOCOLS	MEASUREMENTS	MEASUREMENTS	WEIGHTS	WEIGHTS	HEIGHT
		LENGHT CM	CIRCUMFERENCE CM	WEIGHTS WITH LEAF	WEIGHTS NO LEAF	PLANT CM
	A1	24	15	185	105	295
	A2	27	17,5	200	112	297
	B1	28	18	210	125	298
	B2	24	16,5	195	120	302
	C1	27	18	315	195	309
	C2	29	18,5	305	190	316



6TH VISIT 21/07/2022

Images 90, 91, 92. Comparative photographic evidence of corn from protocols A, B and C of Batch 1. Larger size is identified in the cobs of group C and B compared to group A.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**



Images 93, 94, 95. Comparative photographic evidence of corn from protocols A, B and C of Lot 2A. Better pigmentation and size in the ears of group B and C.

**Control Group A
(No Product)**



**Protocol Group B
(0,1%)**



**Protocol Group C
(0,2%)**





Table 21. Phenotypic data obtained from the measurements of the planting and cobs of each lot with their respective protocols.

LOTS 1	PROTOCOLS	MEASUREMENTS	MEASUREMENTS	WEIGHTS	WEIGHTS	HEIGHT
		LENGHT CM	CIRCUMFERENCE CM	WEIGHTS WITH LEAF	WEIGHTS NO LEAF	PLANT CM
	A1	26	17,5	249	176	302
	A2	31	17,5	283	186	289
	B1	30,5	18,5	323	198	295
	B2	31	18	308	179	305
	C1	34	20	409	227	324
	C2	30	19,5	343	210	318

LOTS 2A	PROTOCOLS	MEASUREMENTS	MEASUREMENTS	WEIGHTS	WEIGHTS	HEIGHT
		LENGHT CM	CIRCUMFERENCE CM	WEIGHTS WITH LEAF	WEIGHTS NO LEAF	PLANT CM
	A1	23	15,5	177	129	293
	A2	27	17	224	141	296
	B1	15	17,5	226	151	279
	B2	16	17	205	135	288
	C1	29	18,5	278	181	282
	C2	27	18,5	285	203	287



**REFERENCES OF PHOTOGRAPHIC EVIDENCE OF THE COBS
AFTER THE FINAL HARVEST OF LOT 1 AND LOT 2A.**

Images 96, 97, 98. Comparative photographic evidence of corn from protocols A, B and C of Lot 1 and Lot 2A.



This image shows the comparative harvest of the last lots, 1 and 2A. It was decided to take 2 cobs from each protocol. At the top are the cobs from lot 1 in order from left to right, protocol A, B and C. In the upper part are the cobs from lot 2. A, B and C. At the bottom are the cobs from lot 2A in order from left to right, at first sight the results obtained are not visible to the naked eye, but weighing was performed with and without leaves for a more specific comparison.



Images 99, 100, 101. Comparative photographic evidence of corn from protocols A, B and C of Lot 1 and Lot 2A without the leaves.



In this image you can see the comparative above, but without the leaves. In the upper part are the cobs of lot 1 in the order from left to right, protocol A, B and C. In the lower part are the cobs of lot 2A in the order from left right of protocol A, B and C. At first glance, it is not possible to see the results obtained, but in the same way, weighing was carried out with and without the leaves for a more specific comparison.



CONCLUSIONS

The research began with 3 different projects to evaluate the reaction of the product with different concentrations. In the beginning, no significant differences were identified. However, there were rainy days with a total of 579 mm³, which is uncommon, and there was little sunshine. which prevented total growth of the cob at the tip.

At mid-term, differences in growth were identified, with the 0.1% group showing higher growth and the 0.2% group in its final stage. The data was collected weekly, with photographic evidence and important measurements for good comparisons. As mentioned above, the farmer regularly obtained 45 tons/hectare.

The harvests were carried out at different times with a week's difference to be closest to their peak for harvesting. Adding the data obtained from the heavy rains and storms, which resulted in losses, it was possible to obtain 75 tons/hectare.

This information was supervised by the owners of the farm and their workers as well as Amstel Argo's own staff in charge of the visits.

It was possible to obtain a much more colorful result and greater size and weight compared to the control group, this is done to achieve a greater volume while maintaining its quality and covering more nutrition with the same space, reaching 66.7% more than usual.

Considering the results obtained in the soil analysis, The soil had excessive copper and high calcium values, but deficiencies of sulfur, aluminum, potassium, nitrogen, and phosphorus, it was possible to maintain a constant production at average time without delays and maintaining their quality without leaving any residue in the soil and being able to continue with the next harvest without the need to work the soils. Finally, it was identified that the 0.2% group presented better results compared to the 0.1% protocol group.