

The image features several circular and semi-circular cutouts of plant leaves. One large central cutout shows a close-up of a mite on a leaf surface. Other cutouts show different views of leaf surfaces, including one with a prominent white needle-like structure. The background is white with several solid green circles of varying sizes.

TEST OF BITOXYBACILLIN™ IN SOUTH AMERICA

Sib
bio

The test of BTB was done in South America



1. Objectives.

- Percentage of control of spider mites by applications of BTB.
- How BTB can be part of the product rotation in the farm.

2. Materials.

- Rose variety
- BTB
- Agral 90

3. Methods.

3.1. *We checked the infection of Spider mites in the different varieties in greenhouses 3, 18 and 19.*

The quantities of spiders were different ranges: 0 to 5, 6 to 10 and 11 to 20, etc.

After this step, we determined the dosage amount of BTB for all the varieties according to the infection level.

3.2. *Schedule of applications.*

Together with the technical manager we determined the days for the BTB application, taking care not to apply another product before 4 days. This step was OK and there were no problems in the other applications.

4. Protocol of the farm applications

Product BTB.

Active product: Bacillus thuringiensis var. thuringiensis, work by contact and after digestion affecting the digestive system.

Characteristics of water of the farm:

Table 1

CHARACTERISTICS OF THE WATER	
pH	7
Hardness	140 ppm

Table 2

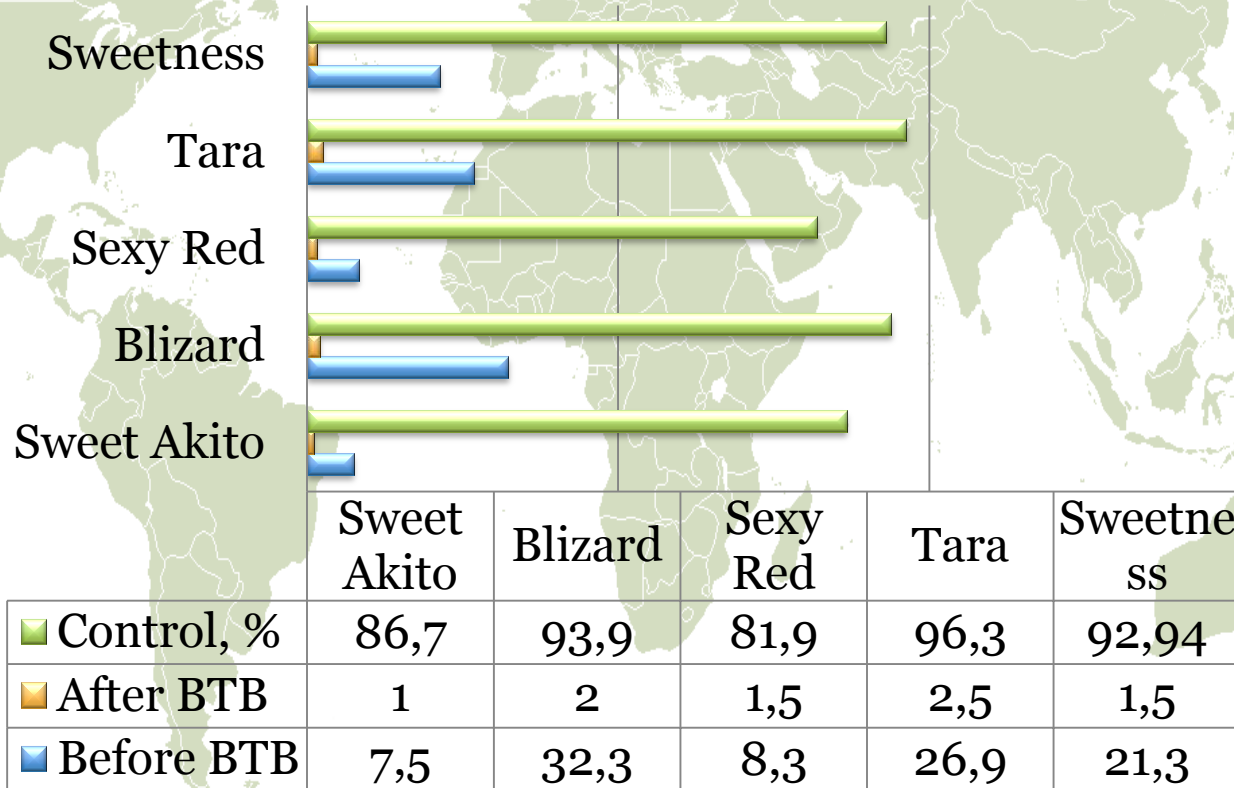
DOSAGE, WATER CONDITIONS FOR THE APPLICATION NUMBER OF APPLICATIONS		
Dosage	50	grams/bed
Volume of water	14	liters/bed
Agral 90	0,3	cc/liter
pH	6	
Hardness	140	ppm
Number of applications	3	
Additional applications	1	
Interval	7	days
Sprayer Maruyama	1, 2 and 3 application	
Jet “J”	4ta application	
Time for next product application	3,4	days
Pressure	25	bar

Observations: the three first applications were done with a handgun with three jets C35, but after the 4th week when we checked the result we saw that the control was like a wave because the application did not cover all the back side of the foliage, and we decided to apply again with 12 gr/bed with a “J” jet for the lower foliage and we achieved excellent results.

NUMBER OF SPIDER MITES BEFORE AND AFTER USING OF BTB

Variety

Greenhouse 3



NUMBER OF SPIDER MITES BEFORE AND AFTER USING OF BTB

Greenhouse 18

Variety

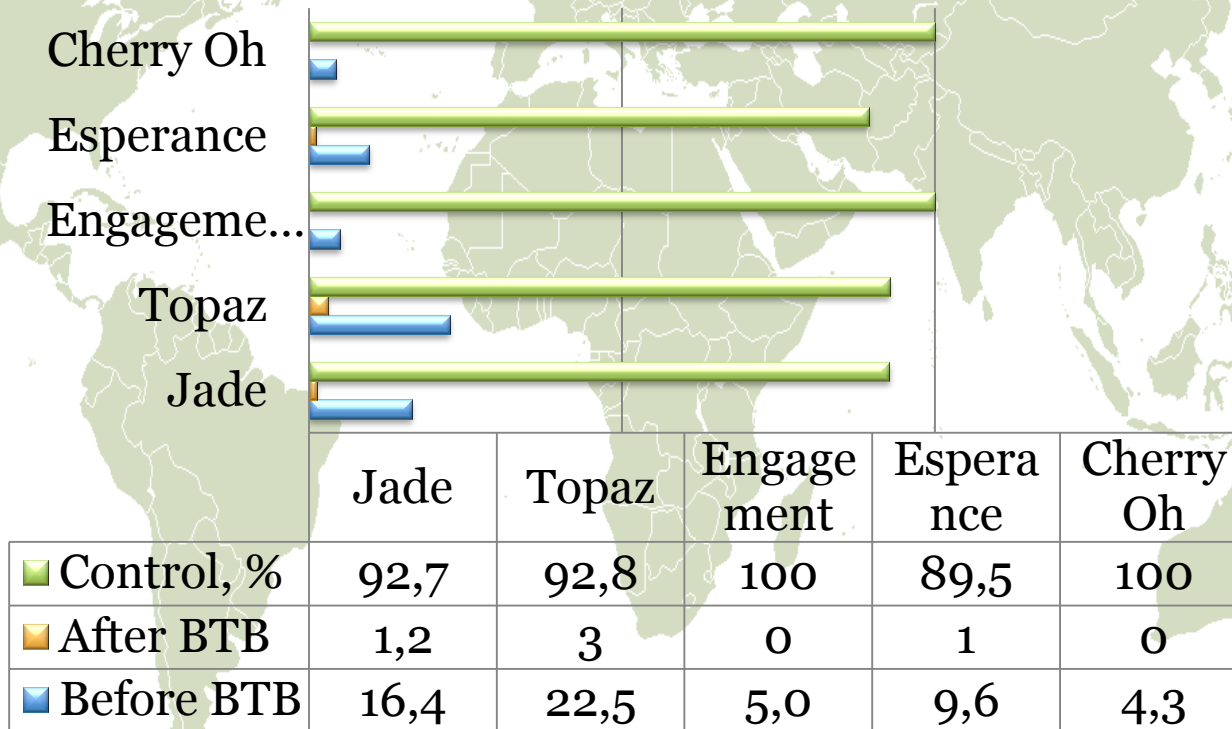
Cherry Oh

Esperance

Engageme...

Topaz

Jade

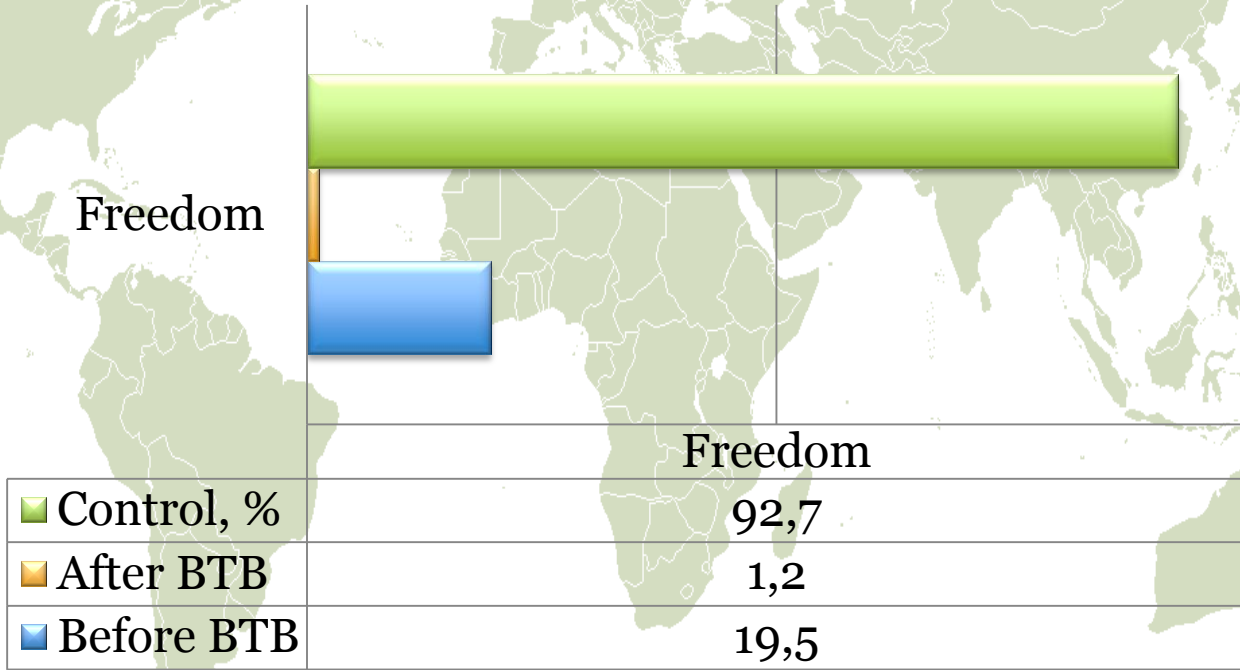


NUMBER OF SPIDER MITES BEFORE AND AFTER USING OF BTB

Variety

Greenhouse 19

Freedom



Freedom

Control, %

92,7

After BTB

1,2

Before BTB

19,5

Comparison of the effectiveness of the chemical product and BTB

Table 6

Chemical product compared	Active ingredient	Control (%) chemical	Control (%) BTB
OBERON	SPIROMESIFEN	10	89
CASCADE KANEMITE	FLUFENOXURON	33	86
POLO	DIAFENTHIURON	65	94
AMIFED	AMITRAZ	90	90
ATHRIN + DIFON	LAMBDAHALOTRINA TETRADIFON	8	92
STARMITE	SPIROMEFISEN	71	89
OBERON + DANISARABA	CYFLUMETOFEN	82	
VERTIMEC	ABAMECTINA	38	92
VERTIMEC	ABAMECTINA	42	88
VERTIMEC	ABAMECTINA	45	90

6. Conclusions

- The BTB product achieved a control of 90.4 % in greenhouse 3, 96% in greenhouse 18 и 93.86% in greenhouse 19
- BTB destroyed the biological cycle or reproduction of the spider mites
- The product does not stress the foliage like most pesticides
- The product avoids damages in the crop due to infection with Spider mites and the agronomist can give more attention to other diseases.

7. Recommendation

- Use the sprayer with a “J” jet to permit more coverage in the foliage.
- Check the effectiveness of the product in each third of the plant again.
- Washing the plant before the application of BTB is recommended.