



## CASE STUDY GREENHOUSE

October 2015



### **What**

Tomatoes, lettuce, courgettes,  
cucumbers, eggplants, parsley & dill

### **Where**

Lazochori, Veria district, Greece

### **Who**

Nikos P.  
Owner of Greenhouse

*agrotube<sup>tm</sup> PVC 4 inch*

## Summary

The greenhouse is currently 33.000 sq. m in size, 3.000 sq. m covered and 30.000 sq. m open, owned and run by Nikos Papadopoulos. This case study deal with this year's production as at October 2015, being 1.500 sq. m of "New Melondi" branded tomatoes and another 1.500 sq. m of "Belladonna" branded tomatoes as also lettuce, courgettes, cucumbers, eggplants, parsley and dill.

The agrotube™ magnetic unit (model No V1AT/3UZL/991) of Magnetic Technologies Company was installed in the greenhouse 16 months ago on June 2014. Before using the unit, the owner didn't believe he could get the greenhouse, at that time 5.000 sq. m in size (3.000 sq. m covered and 2.000 sq. m open), to be profitable again, which had been run at a substantial loss for years and the owner was ready to close the business down. Now, in 2015, with the magnetic unit, the owner has in fact purchased another lot of 28.000 sq. m and building an additional greenhouse. The owner describes the agrotube as a miracle and something that gave him the chance not only to save his business but to develop it further producing extraordinary and healthy vegetables.

The overall benefits as described by the owner, Nikos Papadopoulos, are as follows;

- All production is at least double than before magnetic unit installation, with produce extremely clean and smooth vegetables of very high quality without any spots, with a nice healthy smell and extraordinary taste. The quality is at such a level that the owner, Nikos Papadopoulos, who previously struggled to sell the produce, actually presold this year's produce on the markets of Thessaloniki, Naoussa and Veria.
- An important issue in the area – the soil has stable ideal humidity and without the negative effects of salt on the plants. The plants in the greenhouse grew 40% quicker overall, were virtually free of any diseases, and the produced vegetables are much heavier and healthier looking.
- The greenhouse operating costs decreased substantially fivefold and the expenditure this year totaled 20% of what the owner used to pay the years before. In fact, 90% economy on fertilizers, seedling quantity is at least 2 times less with no excess losses, and water/electricity usage is substantially less.

In terms of results it is important to note that the same greenhouse on last year's production in 2014, the owner planted a total of 4.500 sq. m of "Dexter" branded tomatoes with the total production being 40 tons, or 13,3 tons from each 1.500 sq. m respectively. The same tomatoes in 2013, before the agrotube was installed, from 1.500 sq. m only produced 3,5 tons.

*As described by the owner a comparison before and after installation of the agrotube.*

### **Overall – 2013 & before**

Water quality very low, with a high content of salt to a degree that made it non drinkable. As a result, huge amounts of fertilizer were used to partially treat the issue. The plants however still were negatively affected, with embedded deceases starting from the roots and visibly noticeable as well: unhealthy look, spots of salt on leaves, thin stalk, and low quality produce. The humidity of soil was never correct - or too dry, or too humid.

### **Case Study Produce – 2013 & before**

- The "Belladonna" branded tomato plants were alive for only 4 months of the year, and produced 10 tons from 1.500 sq. m, from every plant 3 – 4 kg of secondary quality produce, which immediately felt soft to the touch.
- The Cucumber plants were shriveled up and had a short life. Parsley and dill plants had a lot of losses due to low quality of produce, turning out small and flassid.
- Eggplants and lettuce plants had a short 2 month plant life, with the latter producing many losses, often per plant production being short of 300 grams.
- Courgette production time was 45 days, sustaining heavy plant loss irrespective of heavy fertilizer use. A late production was never possible.

## Overall – 2014 & 2015

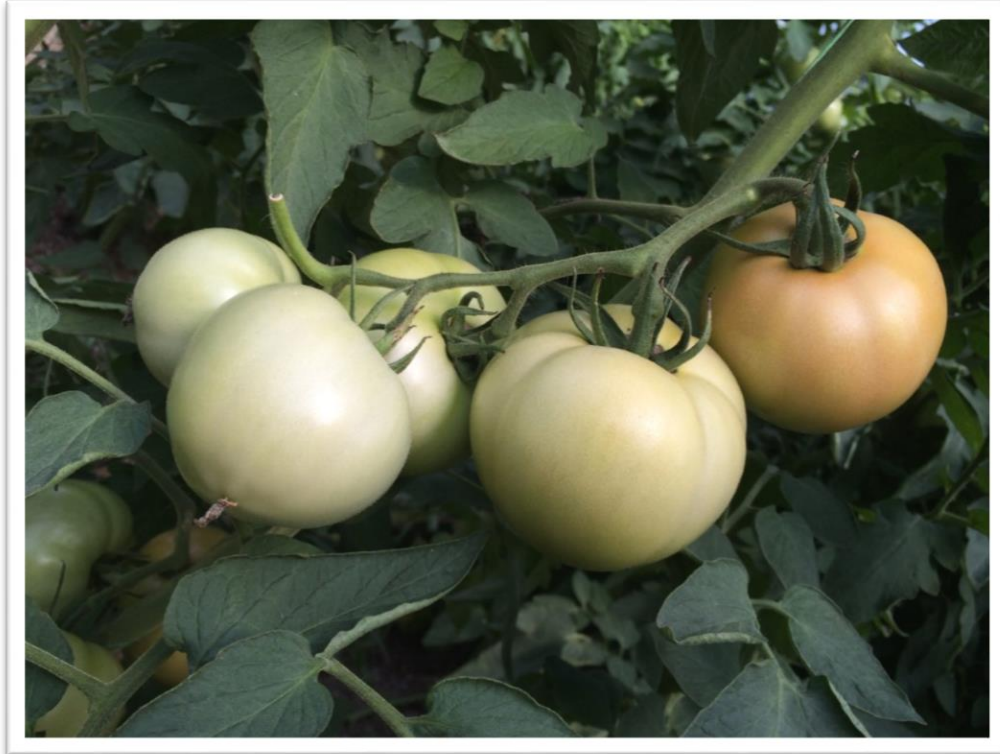
Unseen before in the area good water quality, without salt, looking clean and healthy, suitable for drinking. The plants visibly looking alive and healthy, the stalks thicker, stronger and higher, wide vivid green colored leaves virtually free of any salt spots, produce nice and smooth, clean without any black spots and extremely tasty with a nice smell. There was no fertilizer usage to treat the salt problem, and the 10% use mentioned above actually falls on the period before the magnetic unit was installed. The soil has an ideal stable humidity, not too dry nor too humid.

## Case Study Produce – 2014 & 2015

- The “Belladonna” branded tomato plants live more than doubled (second part of video shows 6,5 month old plants, and they are expected to live another 2 months, still having flowers and a strong and clean stalk), and produce increased to 25 tons from the same 1.500 sq. m, from every plant 7,5 – 8 kg of very high quality tomatoes, which are now smooth and durable with a nice smell.

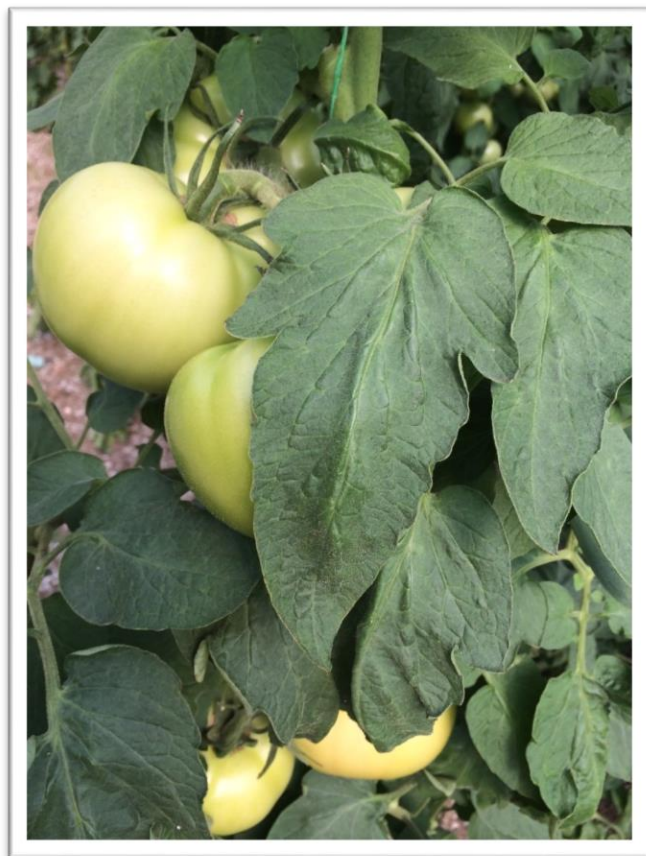


- The “New Melondi” branded tomato plants at 45 days already producing tomatoes, providing an increase of 80% in plant growth, as can be seen in first part of video.













- The Cucumber plants were so healthy that they lived till the end of the season, gave double the production and the same was extremely fresh and tasty. Same thing for eggplants, double the production, very smooth and clean.
- Lettuce production time is 45 days, no plant loss, and weight of each plant doubled to north of half a kilogram, extraordinary unseen quality, very healthy green color with a much larger more than double storage period. The video shows the planting of lettuce in October, this was never possible before.







- Courgette production time is now 4 months, with no plant loss, every root now gives double the quantity and of amazing quality. The video shows a late triple production.





- Parsley and dill visibly fresh and ready in 15 days, strong structure and packed stay as fresh for 10 days.



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<https://www.youtube.com/channel/UCoxRdcYjP6nx2svuFL0sONA>

Watch the video reference this case study

<https://www.youtube.com/watch?v=hg92VC25-to&list=PLzYtB-dhq2RaeyZwZjwjH3fbhxyVqgH3x>