



CASE STUDY

PRODUCT	ALVA-5
INDUSTRY	AGRICULTURE
CROP	PASSION FRUIT
COUNTRY	ISRAEL
YEAR	2020
REF. NUMBER	2909610199

1. Overview

The client is based in the Jordan Valley, Israel.

The local water quality has two grades: 900ppm Chlorides, and 1,500 ppm Chlorides level. The soils are clogged because of high concentration of salts at the layer below 50cm.

The water has EC of 3.5 ds/m (900 ppm Chlorides).

Passion fruit plot of 2,000 sqm, with 4 varieties with difference tolerance for salinity.

The aim of the farmer is to evaluate which of the varieties will perform best under the treated and non-treated conditions.

2. Farmer's Aims

The area is a plot of. The client's objective is to decide which soil management variety and agronomic methods will result in a successful commercial production of Passion Fruit, all while using saline water for irrigation.

3. Installation Process

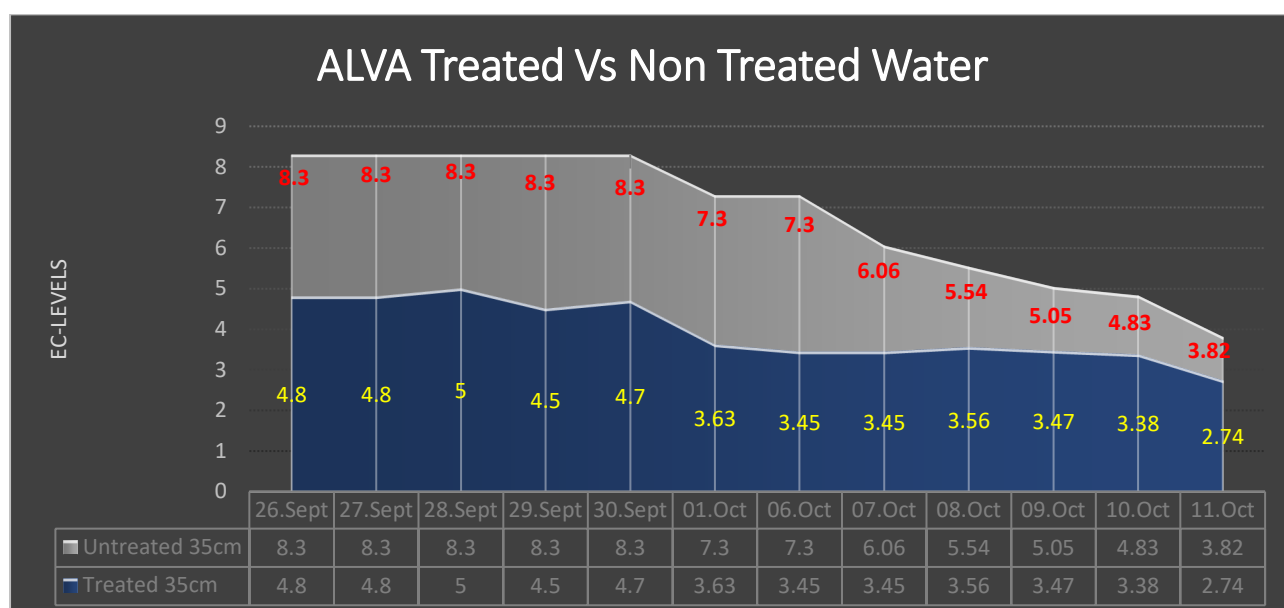
The installation was simple, and the ALVÁ device and solar panel were quickly plugged in.



4. Results

After less than a week the client already saw a clear difference between the drainage water samples taken from 2 depths: 20cm and 35 cm, treated and non-treated:

	20cm non-treated	20cm ALVA treated	20cm EC improvement	35cm non-treated	35cm ALVA treated	35cm EC improvement
26/09/20	8	4	50%	8.3	4.8	42%
27/09/20	5	4	20%	8.3	4.8	42%
28/09/20	5	3.5	30%	8.3	5	40%
29/09/20	4.8	3.3	31%	8.3	4.5	46%
30/09/20	4.7	3.5	26%	8.3	4.7	43%
01/10/20	4.47	3.14	30%	7.3	3.63	50%
06/10/20	5.15	2.96	43%	7.3	3.45	53%
07/10/20	5	3.35	33%	6.06	3.45	43%
08/10/20	4.52	3.33	26%	5.54	3.56	36%
09/10/20	4.52	3.27	28%	5.05	3.47	31%
10/10/20	3.58	3.23	10%	4.83	3.38	30%
11/10/20	3.58	2.66	26%	3.82	2.74	28%
		Average	29%		Average	40%



5. Farmer's Feedback & Testimonial

The client was surprised by the dramatic results and the impact of the device on the soil EC (salinity). He pointed that the leaching from the 35-40 cm layer is crucial for the development of the crop, so the results were spot on for him.

The client reaction: "It can be seen that indeed the electrical conductivity index has dropped significantly in the area where the ALVA5 system is installed. We are now interested to install the system in our tomato field as well".

6. Photos



Passion fruit plant growing in salty soil irrigated by saline water treated by ALVA-5 device.



7. Conclusion

We can see clear evidence that the ALVA device allows the farmer to keep the soil salinity very close to the water salinity, meaning that there is very little accumulation of salt in the first 60cm layer of soil and the leaching of salt from the soil is 40% higher, on average, than the non-treated water.