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**REPORT FARM A.L.BA. SAS
DI ALESSANDRO BASILE & C.
CASTEL CAMPAGNANO (CASERTA)**



**COMMENT ON FINDINGS OF MAGNETIC WATER
TREATMENT FOR CROPS WITH IONIC ACCELERATOR
NEW ARA MANUFACTURED BY VOSGES**

SEPTEMBER 2002

PREMISE

The farm A.L.BA. sas di Alessandro Basile & C. in Castel Campagnano (CE) to satisfy the needs of irrigation of an olive grove of 1200 trees, a garden of 1000 m² and a garden of equal area, has invested in the construction of an artesian well.

The search for water and the subsequent excavation were conducted in March 2001.

The 70 meters deep well, having 20 cm of diameter is covered with galvanized iron pipes and the submerged pump was placed to a depth of approximately of 60 meters.

By subsequent analysis made performed by the Larian company, has resulted in a high percentage of sodium salts, such as to make the water completely unsuitable for irrigation.

The study conducted by the VOSGES company on the basis of the analysis and irrigation needs to the company, has allowed to identify the best method of correcting the salinity of the water.

It was therefore adopted an ionic accelerator NEW ARA serie 2004 - 1"1/4 with flow rate of 140 lts/min with filter.

The studied scheme provides for the installation of the ionic accelerator to a water recycling system operated by means of a pump applied to a tank of galvanized iron of 10.000 liters.

Within 24 hours the tank is filled twice. The water collected is subjected, for each filling, to a cycle of 8 hours. In this way, the company may have a quantity of water sufficient to meet their irrigation needs.

At first, to make the correction cycle, a Lowara pump mod. CEA 210/4 at 2,4 bar was installed, with an effective range of 8,4 m³/h.

Unfortunately, the pump has proved too small to meet the standards parameters imposed by the calculations.

In fact, failing to maintain a pressure of 2 Atm., it was impossible to complete the cycle of "correction" in the 8 hours provided.

Before repeating the calculations and make changes to the system, was carried out testing of treated water for 24 hours consecutive. Analyses were conducted by a different laboratory than that initially contacted.

It showed a reduction in the value of the electrical conductivity of the water "treated".

Provided that, from the point of view of the technicians of the VOSGES company is sufficient to demonstrate the effective validity of the operation of correction for the effect of the ionic accelerator.

On the recommendation of the VOSGES company technicians was made a field trial to test the quality of the water properly.

On 2002 July 18, small lettuce have been planted in a flowerbed, 3 meters wide and 5 meters long.

In a part of the same were planted 9 small lettuces who periodically received well water regularly “**treated**” with NEW ARA ionic accelerator. Spaced about 2 meters, are been planted another 9 small lettuces who received a well water without treatments of any kind.

It’s important to point out that throughout the period of the climate system has not been too drought. The month of August and September were characterized by high rainfall, however, have made a significant amount of rainwater.

This is falsified the effects of water “**treated**”, but also reduced the irreparable damage that would cause the salt water in the absence of precipitations.

CONCLUSIONS

That said, we have identified the following conditions :

- lettuces watered with water “**treated**” have shown a rapid and regular growth;
- lettuces watered with salt water grew slowly and, in some cases, with obvious disrupted;
- after more than 2 months of experimentation, the lettuces that have benefited from water “**treated**” have grown more than twice as “companions”;
- demonstrating the beneficial effects of the proper water on the vegetation and the ground below, there was greater growth of weeds around the area irrigated with water “**treated**”.

A verification tasting has completed the trial.

The first lettuce ready to cut between those irrigated with water “**treated**”, it appare in a good dimensions, of color bright green and vibrant, with soft and firm leaves to the touch, absence of rottenness, with white and firm ground and with well structured and rich radical apparatus of filaments.

The taste was sweet and typical.

The first lettuce harvest between thos irrigated with salt water, it was certainly not in an optimal state to be cut. It appeared smaller (less than half of the first sample tasted), with a predominantly coloured little lively.

To touch the leaves had dried and shriveled, but maintained a good consistency.

Also in this case it is noted : the absolute lack of rot , a white and firm collar, even within the limits of the small dimensions.

The radical small rot system didn’t introduce particular defects or merits. The taste was sweet with a distance sense of bitter, typical of those vegetables that have received little water in the cultivation period.

Overall, there were no notes highlighted particularly positive or negative.

A demonstration of the testing performed, enclose photos of the flowerbed described.

The files indicated by the letter “A” refers to plants irrigated with water “**treated**”.

The files indicated by the letter “B” refers to plants irrigated with salt water.

Best regards.

Alessandro Basile