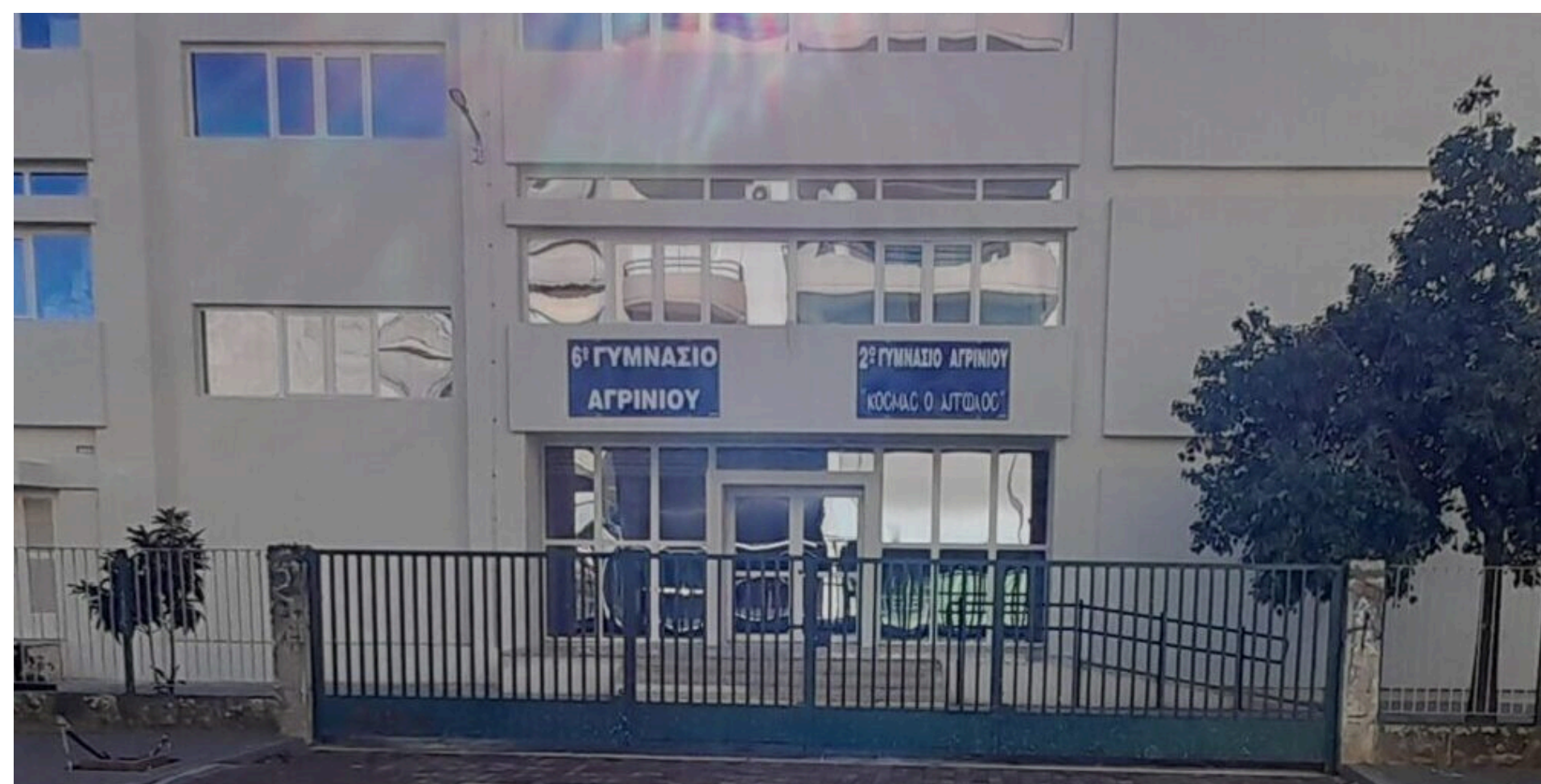


Introduction:

As we are trying to educate the youth about the importance of WATER, the past, present and future challenges that we are facing, we decided to do an experiment on the importance of water quality in cultivating agricultural plants. We chose beans to be the sample seed.



Research question:

Does the quality of WATER affect the growth of plants?



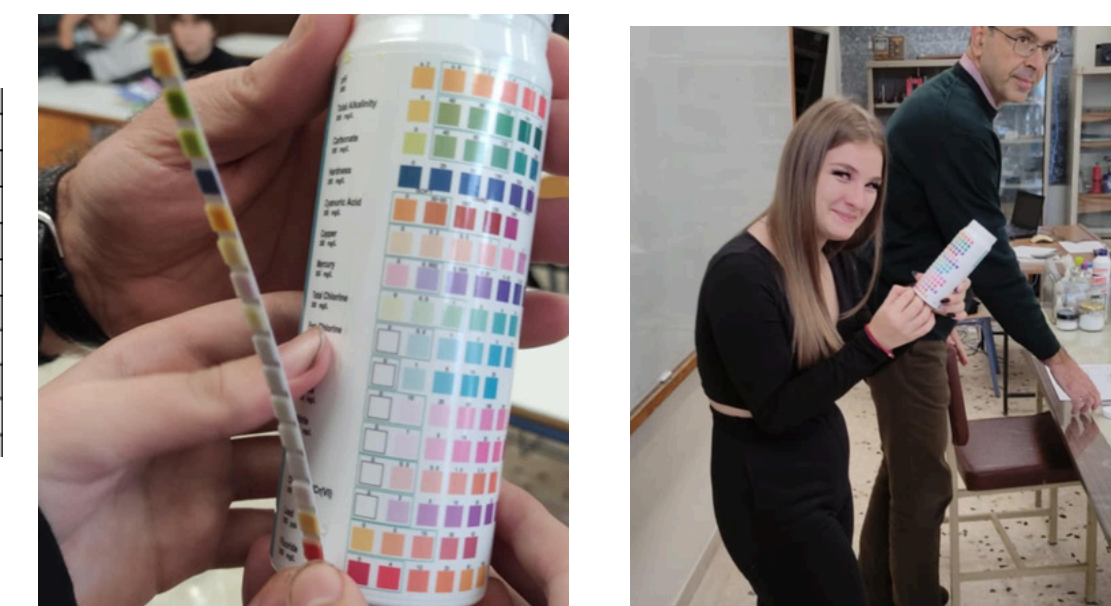
Hypothesis:

Raising awareness and education will lead to better growth of crops. More community members will: collect rainwater and use it in their gardens; care more about air pollution and will try to reduce greenhouse gases.

Methods:

1. Analyze the physical and chemical properties of waters which will be used to water the plants

	Tap	Rain	Distilled	Lake	Salty	Acidic	Fertilized
Clarity	clear	clear	clear	clear	clear	clear	clear
Colour	no	no	no	no	no	no	no
Odour	no	no	no	no	no	no	no
Reaction	40	0	0	80	120	40	40
NO ₃ ⁻ concentration	0	0	0	0	0	0	10
PO ₄ ³⁻ concentration	0	0	0	0	0	0	2
Cl ⁻ content	0	0	0	0	0	0	0
pH level	6,2	6,2	6,2	6,8	7	6,2	6,2
Lead (mg/lit)	0	0	0	0	0	0	0



2. Planting process

- We planted the bean seeds in the same soil in 7 different pots.
- We placed two seeds in each pot. We placed the pots near the window of the faculty room.
- The planting took place on 2/12/2024



3. Monitor the growth weekly

- a. take notes on what you can see, e.g. colour of the leaves, the numbers of leaves, etc.
- b. measure the circumference of the stem every 10 cm
- c. monitor the temperature in the room and the numbers of hours of sunlight per day.
- d. monitor the height of the plant
- e. take pictures of the experiment regularly



Findings:

- Unfortunately the plant that was watered with distilled water dried out and we had to plant new seeds.
- The other plants grew evenly without significant differences.



CONCLUSIONS:

- The most resilient plants were the ones watered with distilled water and rain water.
- The quality of the soil as well as the ambient temperature play a significant role in the plant growth.

