RATE OF GROWTH OF A PLANT IN DIFFERENT TYPES OF WATER

Science Fair Project Report

Level		Primary
Category		Life Science

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Rate of growth of a plant in different types of water

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ABSTRACT

My project is to find out the rate of growth of plants in different types of water. I selected five different types of water (pond water, tap water, purified water, sewage water and sea water). I observed daily and measured the growth of the plant.

INDRODUCTION

Are you wondering how does different types of water affect plant growth? The types of water used for every kind of plant have a significant effect on their growth.

Water is essential for everyone or anything; even the plants in the desert need it.

Different kinds of water could affect our bodies, and it is entirely the same as other plants.

In gardening, water is very important. Knowing the types of water would help you to pick what is best for your plants.

TRIAL 1


SCIENCE
FAIR PROJECT
2021
A. AFIYA.
GRADE 4
FILTER
WATER


SCIENCE
FAIR PROJECT
2021
A. AFIYA.
GRADE 4

STATEMENT OF THE PROBLEM

I am much interested in gardening . When I started growing plants my parents said only a few plants will grow in this soil. I was wondering then I thought what would happen if we grow the plants with various types of water. So I took the project.

HYPOTHESIS

Plants that are grown using tap water will grow fast.

DESIGNS OF STUDY

DEPENDENT VARIABLE :

- Fenugreek seeds

INDEPENDENT VARIABLE :

- Different types of water

CONTROLLED VARIABLE:

- Soil

MATERIALS :

- Bowl (5)
- Bottles
- Fenugreek seeds
- Thread
- Scale
- Pencil
- Survey form

PROCEDURE

- Label the five bottles of water and also the bowl

  (sewage, sea, pond, tap, purified water).
- I used 30 Fenugreek seeds for each bowl .
- Filled the same type of soil all the bowls.
- Sowed the seeds and watered it .
- Observed and data collected.
- We did the same procedure 3 times.
- Finally I came to a conclusion.

TRIAL 1

GERMINATION DETAILS

S.NO	TYPES OF WATER	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9
1	POND		✓			
2	TAP				✓	
3	PURIFIED	✓				
4	SEWAGE					✓
5	SEA	-	-	-	-	-

COLLECTION OF DATA

MEASUREMENT OF PLANT

S. NO	TYPES OF WATER	DAY 9	DAY 10	DAY 11	DAY 12	DAY 13	DAY 14	AVERAGE (cm)
1	POND	_	1.2	2.5	2.5	3	3.8	2.6
2	TAP	_	_	_	1.2	1.8	2	1.7
3	PURIFIED	1.2	1.8	1.9	2.5	3.8	4	2.5
4	SEWAGE	_	_	1.6	2.4	2.8	3	2.45
5	SEA	_	_	_	_	_	_	_

TRIAL 1

RESULT :

- The seeds germinated first in purified water after five days.
- The seeds germinated second in pond water after 6 days.
- Next in tap water after 8 days.
- The seeds germinated in sewage water after 9 days.
- There is no germination in sea water.

TRIAL 2

GERMINATION DETAILS

S. NO	TYPES OF WATER	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8
1	POND	✓				
2	TAP	✓				
3	PURIFIED	✓				
4	SEWAGE	_	_	_	_	_
5	SEA	_	_	_	_	_

COLLECTION OF DATA

MEASUREMENT OF PLANT

S.NO	TYPES OF WATER	DAY 9	DAY 10	DAY 11	DAY 12	DAY 13	DAY 14	AVERAGE
1	POND	1.2	2.5	2.8	3.9	5	5.3	3.5
2	TAP	1.8	2.7	3.1	5.8	7	7.8	4.7
3	PURIFIED WATER	1.9	2.8	2.9	3.1	3.4	3.9	3
4	SEWAGE	_	_	_	_	_	_	_
5	SEA WATER	_	_	_	_	_	_	_

TRIAL 2

TRIAL 2

- **RESULTS:**

Trial 2 was started from February 24 after three days the tap water, pond water and purified water plants are germinated on same days. But there is no germination in sewage and sea water.

TRIAL 3

GERMINATION DETAILS

S. NO	TYPES OF WATER	DAY 8	DAY 9	DAY 10	DAY 11	DAY 12
1	POND	✓				
2	TAP	✓				
3	PURIFIED	✓				
4	SEWAGE	_	_	_	_	_
5	SEA	_	_	_	_	_

COLLECTION OF DATA

MEASUREMENT OF PLANT

S. NO	TYPES OF WATER	DAY 9	DAY 10	DAY 11	DAY 12	DAY 13	DAY 14	AVERAGE
1	POND	3.6	3.8	4	4.5	4.9	5.5	4.4
2	TAP	3.6	5.2	5.8	6.2	7.5	8.6	6.2
3	PURIFIED	3.2	4.5	4.8	5	5.2	5.8	4.8
4	SEWAGE	_	_	_	_	_	_	_
5	SEA	_	_	_	_	_	_	_

TRIAL 3

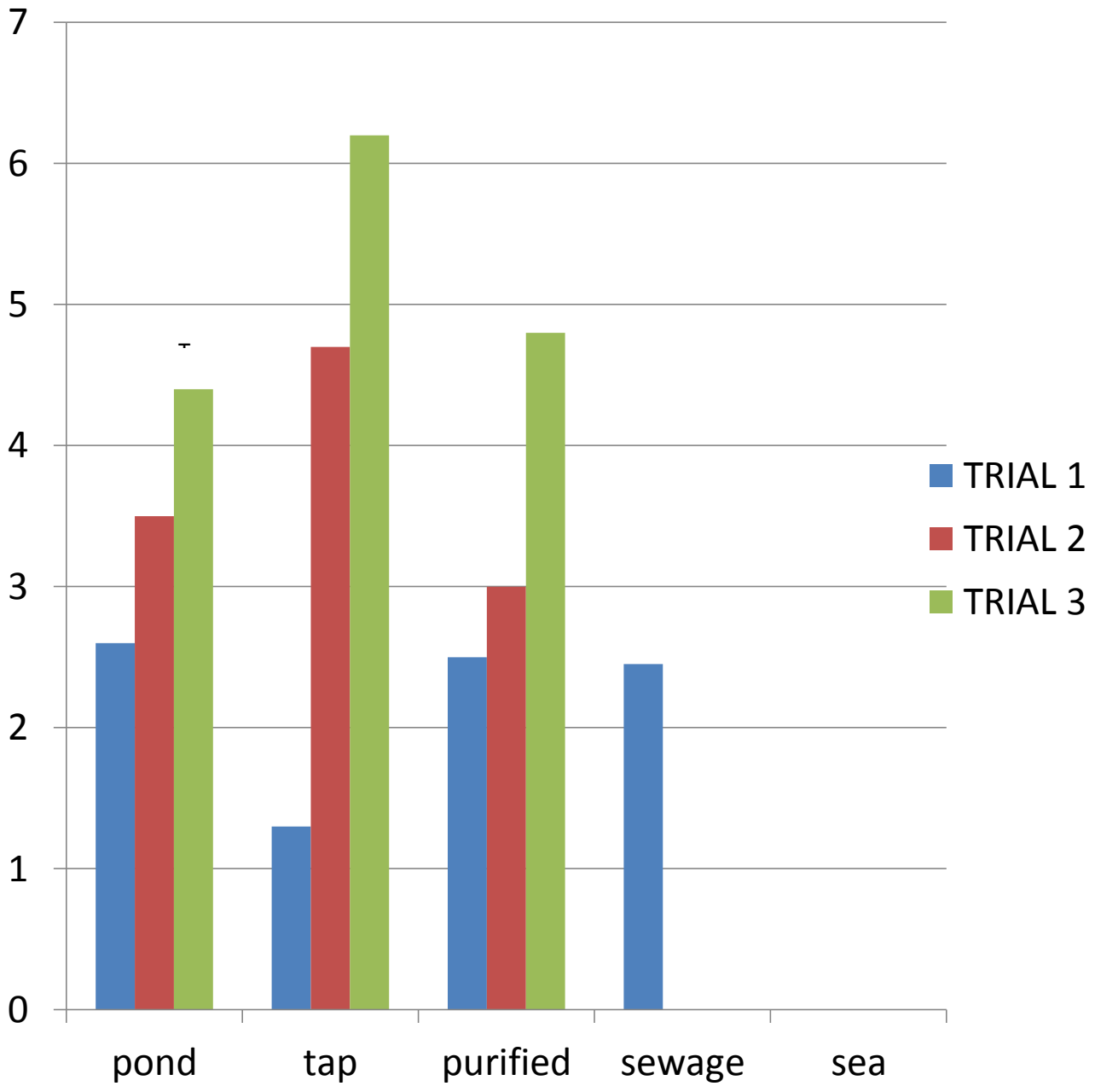
- **RESULTS**

Trial 3 was started from March 5 after two days the tap water, pond and purified water plants are germinated. But there is no germination in sewage and sea water.

TRIAL 3


DAY 1
SCIENCE FAIR
DAY 2
SCIENCE FAIR
DAY 3
SCIENCE FAIR
DAY 4
SCIENCE FAIR
DAY 6
SCIENCE FAIR
DAY 7
SCIENCE FAIR
TAP

GRAPHICAL REPRESENTATION



RESULTS

The original purpose of this experiment was to determine, whether plants grow better in **Tap water**.

DISCUSSION & CONCLUSION

- The seeds were not germinated when we used sewage water because it contains more pollutants.
- Since the sea water contains more salt the seeds were not germinated in that bowl also.
- The plants growth in tap water is better than pond and purified water.
- As we decided earlier we got quick and fast growth in tap water.

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Mrs.A.Meenakumari, Instructional coach
Mrs.Gulzar.

" Thank you is the least I can say to you to show my appreciation for everything you have done for me".

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