Micro plastic A menace

 RATIONALE: Microplastics, even at low concentrations, canl impact plant growth and development. They can also alter soil properties and impact soil microbial communities, which can indirectly affect plant health.

This study put light on the health hazards of not only the plants but also other living organisms including human directly or indirectly.

 Problem: investigating how micro plastic affects the plant growth and development

 Hypothesis: may be micro plastic affects the plant growth by blocking the stomata and altering the chlorophyll structure which affects the plant growth and development.

 Procedure:

1.Measure out a specific amount of microplastics1%, 5% and 10% of the soil weight

2. Mix the microplastics with the soil thoroughly.

3. Plant seeds in the pots filled with the microplastic-soil mixture.

4. Water the plants thoroughly.

5. Providing consistent light, temperature, and watering conditions

6. Repeat the treatments for each microplastic concentration and a control group (without microplastics).

Data Collection and Observation

Measuring plant growth parameters, such as root length, shoot length, and leaf area

Observe plant health, including signs of disease, or pests.

Monitoring soil pH

 Risk and Safety:

- microplastics should be handled with care, as they can be easily dispersed and contaminate other areas.
- when handling microplastics and soil wear mask and gloves
- Do not ingest of microplastics and soil.

 Data Analysis:

(In progress)

Parameters	Control.	Expt1(1%)	Expt2.(5%)	Expt3(10%)

Root length

Shoot length

No.of leaves

Soil pH

Plant health

 Bibliography:

https://pmc.ncbi.nlm.nih.gov/articles/PMC7920297/

https://pmc.ncbi.nlm.nih.gov/articles/PMC10452891/