



Stage 5 Agricultural Technology: Plant nursery production

Practical: Effect of soil conditioners on seedling growth

Aim:

This investigation is to determine the effect of a range of soil conditioning materials on the growth of seedlings.

Materials:

Seed trays or punnets

Soil or soil mix

Seeds (vegetable or flower seeds which are in season)

Soil conditioning agents, e.g. compost, gypsum, lime, peat moss, water crystals

Method:

Each group of students will need to produce a complete replication of the experiment, and the whole class data will need to be made available for the whole class.

1. Using the same base soil type, mix a soil conditioner with soil and place it into a punnet. Remember to make a control.
2. Plant seeds in each punnet at a suitable density.
3. Place the punnets into a greenhouse, and water and fertilise when necessary.
4. When the seedlings have grown to a reasonable size assess the growth of the seedlings by
 - a) visual assessment
 - b) % germination
 - c) plant height.

Results:

Collect the data from the whole class to allow each student to calculate the averages for each soil conditioning agent.

Conclusions:

Identify the effects of soil conditioners on plant growth.