

Formal Report for Science Fair Project

Title Page

Title: The Impact of Natural Fertilizers on Plant Growth

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Abstract

This report details a science fair project investigating the effects of different natural fertilizers on the growth rate of tomato plants. The objective is to determine which type of natural fertilizer leads to the most effective plant growth.

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Introduction

The purpose of this science fair project is to explore the impact of various natural fertilizers on the growth of tomato plants. This study aims to contribute to sustainable

agricultural practices by identifying effective natural alternatives to chemical fertilizers.

Hypothesis

The hypothesis states that tomato plants fertilized with compost will show significantly higher growth compared to those fertilized with other natural substances such as coffee grounds or eggshells.

Methodology

The experiment was conducted using three groups of tomato plants, each group receiving a different type of natural fertilizer: compost, coffee grounds, and eggshells. Each group consisted of ten plants, and the experiment was conducted over a period of three months. Plant growth was measured weekly in terms of height and number of leaves.

Results

- Plants fertilized with compost showed the highest average growth, measuring 20% taller than those fertilized with coffee grounds and 30% taller than those with eggshells.
- The number of leaves was also higher on plants with compost compared to the other groups.

Discussion

The results support the hypothesis that compost is more effective than coffee grounds and eggshells in promoting plant growth. This may be due to the higher nutrient content in compost, which provides a more balanced diet for the plants.

Conclusions and Recommendations

The study concludes that compost is a superior natural fertilizer for tomato plants compared to coffee grounds and eggshells. It is recommended for gardeners seeking sustainable growth methods to consider using compost to enhance plant health and productivity.

References

- Journal of Sustainable Agriculture
- "The Complete Guide to Natural Fertilizing" by Dr. Linda Grey

Appendices

- Appendix A: Data Tables of Weekly Growth Measurements
- Appendix B: Photographs of Plants During Experiment Stages