## Introduction

In this experiment, we investigated the germination patterns of three different species of angiosperms (pea, mustard and barley) under light deprived conditions. For this purpose, we evaluated the mean of both pea and barley under control and light deprived conditions  
Light is a key factor in plant development as well as in photosynthesis and metabolism.

## Hypothesis

Light deprived plants should not develop a green phenotype due to the absence of photosynthesis. Also, the mean length of a light deprived species should be greater than in control groups, because of light directed growth.

## Methods

Seedlings of pea, barley and mustard were planted and put into a light-proof container for a week. The control group was exposed to light.

## Results

## **Pea (control) in cm Pea (dark) in cm Barley (control) in cm Barley (dark) in cm**

|  |  |  |  |
| --- | --- | --- | --- |
| 2.6 | 4.5 | 8.4 | 4.0 |
| 3.4 | 5.3 | 8.5 | 4.4 |
| 2.1 | 3.6 | 5.8 | 8.4 |
| 2.1 | 3.9 | 4.5 | 10.5 |
| 3.6 | 4.3 | 7.5 | 8.1 |
| 2.7 | 3.2 | 7.2 | 9.0 |
| 3.4 | 4.5 | 8.4 | 7.0 |
| 2.5 | 4.2 | 7.8 | 7.2 |
| 2.4 | 4.6 | 7.4 | 10.0 |
| 4.7 | 4.4 | 9.0 | 8.5 |

*Table 1.*

The mean of pea (control) is 2.95 cm. The mean of pea (dark) is 4.25 cm. The relative increase in growth length is 44.06%.  
The mean of barley (control) is 7.45 cm. The mean of barley (dark) is 7.71 cm. The relative increase in growth length is 3.5 %.

## Discussion

There was a great increase in light deprived pea plants compared to the control group, but only a slight increase in light deprived barley plants. The results suggest that genetic factors play a more important role in growth of barley plants than in pea plants. This could be subject to future investigations.