

Photoperiod Experiment Protocol for planting soybeans

- a. In large plastic bins, soak standard potting mix using water until slightly moist. Fill pots with slightly moistened growing media to about 3/4s up to soil line
- b. Spread half a cup of slow release fertilizer evenly on top
- c. Continue to fill the pots to the soil line with slightly moistened soil
- d. Poke 8 one-inch deep holes in the top of the growing media using your finger. Try to space the holes evenly around the center of the pot.



- e. Place a soybean in each hole and lightly cover with dry growing media
- f. Using a pipette or dropper, gently apply water to each seeded area (10-20 drops)
- g. Label your groups pot properly and place it on the proper lighted



Observing Growth and Development Team Data Sheet

| Student Name 1 | Student Name 3 | |
|----------------|----------------|--|
| Student Name 2 | Student Name 4 | |
| Group number | | |

| Week | Trait | Measurements | | | | | | | Team Percentage | Class Percentage | |
|------|---------------------------|--------------|--------|-----------|-------------|-----------|-----------|--------------|-----------------|------------------|---|
| 1 | Plant Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| | Germination (y/n) | 1.122 | | 1.00 | | | | - 22 | 1.14 | | |
| | | Stud | ient 1 | Student 2 | | Student 3 | Student 4 | Team Average | Class Average | | |
| | Plant Number | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 1 | | |
| 2 | Plant Height (cm) | | | | | | | | | | |
| | Number of Leaves | | š | | 111 | | | | - | | |
| | Number of Nodes | | | | | | | | | | 0 |
| 3 | Plant Height (cm) | | 1 1 | | · · · · · · | | | | | Ĩ | |
| | Number of Leaves | | 6 | | | | | | | 1.02 | |
| | Number of Nodes | | | | | | | | | | |
| 4 | Plant Height (cm) | | | | 2 2 | | 1 | | | | |
| | Number of Leaves | | | | | | | | | | |
| | Number of Nodes | | 1 A | | 8 8 | | | | 1 | | 2 |
| | Number of Open Flowers | | | | | | | | | | |
| | Number of Flowering Nodes | | 1 | | 1 | - | i i | | - | | 2 |
| | Date of first Open Flower | | 1 | | | | | | | | |
| 6 | Plant Height (cm) | | 1 | | | | | | | | 4 |
| | Number of Flowering Nodes | | | | | | | | | | |
| | Number of Nodes with Pods | | | | 1.1.1 | | | | | 3 | 1 |
| | Total Number of Pods | | | | | | | | | - | |
| 8 | Plant Height (cm) | | 88 | | - | | | | _ | | 2 |
| | Number of Flowering Nodes | | | | | | | | | | - |
| | Number of Nodes with Pods | | | | | | | | | 2 C | 2 |
| | Total Number of Pods | | 0.00 | | 2 | | 6 | | | | 1 |
| 10 | Plant Height (cm) | | 1 | | | | | | | | |
| | Number of Flowering Nodes | | 2 | | | | | | | 2 | |
| | Number of Nodes with Pods | | | | | | | | | | |
| | Total Number of Pods | - | 81 | | - | | š | | 1 S | 3.3 | |

- 1. Be sure to label the dates in which each plant reaches its new vegetative and reproductive stages.
- 2. Which traits show the most variety within and among groups?

