

Plant Phenophase

Jacob Carver

Figure 1: Plant 1



This image shows the plants reproductive phase on plant 1.

Figure 2: PLant 2



This image shows a new bud growing on plant 2.

Figure3: PLant 3



This image shows a new bud growing on plant 3.

What is a Phenophase?

A Phenophase in plants is the development of new leaves and flowers. (1)

Phenophases are influenced by climate and allow us to observe the effect of climate change and changes in seasonal patterns.(2)

Hypothesis

I predict that plant 1 will bud sooner because it is growing in full sunlight.

Methods

To collect our data we observed 3 different plants over the period of several weeks. We used a ruler to determine the length of one bud.

Figure 4: Plant Growth Data

Plant 1	1.4cm	1.7cm	3.8cm	5cm	9.3cm
Plant 2	1.1cm	1.2cm	1.3cm	1.6cm	2cm
Plant 3	1.2cm	1.4cm	1.6cm	1.7cm	2cm

This table shows the length of the phenophase of three plants over five weeks

Results

Growth was slower in Plant 2 and 3 until week 3 when they showed increased growth. Plant 1 displayed a increasing progressive growth rate when it developed flowers at week 4.

References

1:USA NPN National Phenology Network. phenophase | USA National Phenology Network. (n.d.). <https://www.usanpn.org/taxonomy/term/16>.

2: Visser Marcel E and Both Christiaan, Marcel E Visser Marcel E Visser Netherlands Institute of Ecology (NIOO-KNAW)PO Box 40, Visser, M. E., Marcel E Visser Netherlands Institute of Ecology (NIOO-KNAW)PO Box 40, Both, C., Christiaan Both University of Groningen, & Al., E. (2005, November 1). *Shifts in phenology due to global climate change: the need for a yardstick*. Proceedings of the Royal Society B: Biological Sciences. <https://royalsocietypublishing.org/doi/10.1098/rspb.2005.3356>.

Discussion

This data supports my hypothesis. Redoing this experiment I would try to choose the same species in different areas to see if direct light can influence the growth of the phenophase. A long term observation over a few years may give additional data to see how climate change has affected the phenophase development.