

German Chamomile Growth Rates

By Tim Kenny



Overview of German Chamomile

- ***Matricaria chamomilla***
- Chamomile will grow in a pH scale between 5.6 to 7.5
- Grows to 20 inches and blooms in about 6 weeks
- Seedlings appear 1 to 2 weeks after broadcasting
- Seeds grow on top of soil and are not planted in soil
- Used medicinally, but very little research has been done
- Increases the effects of sedatives

Question at hand



- What types of soil will chamomile grow well in? Will they fair well in city soil?

The M E T H O D

- 3 soil types were chosen
- Each soil type was given 4 three inch pots
- One tsp. of Chamomile seeds were broadcasted onto the top of the soil.
- All of the seeds were given the same amount of light from a north facing window ledge.
- Watering regularly with about 1 to 2 tbsp.
- pH testing once at the beginning of study



Soil Types

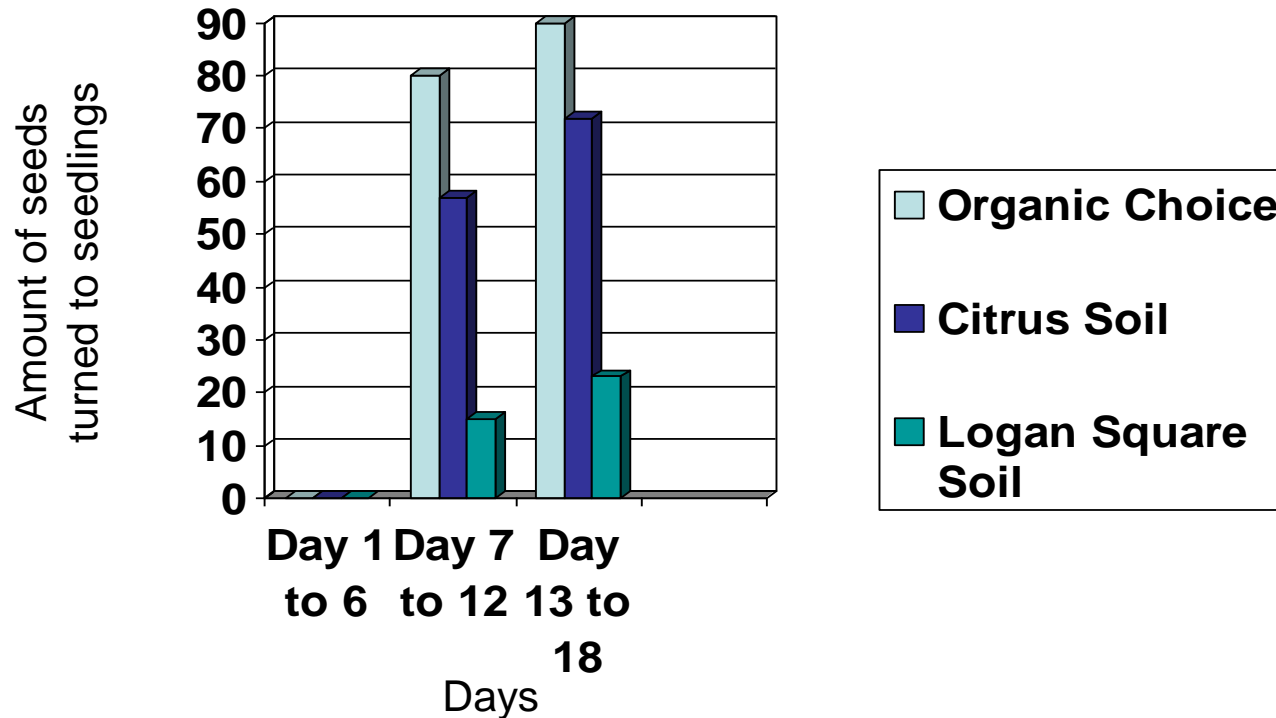
- Type 1 was a Miracle Gro Organic Choice
Type 2 was a Miracle Gro Citrus, Palm
and Cactus soil
- Type 3 was a soil dug up in Logan Square
in the park



Hypothesis

My hypothesis was that the Miracle Gro organic potting soil would produce the highest plant yield, and the Cacti soil would produce the lowest yield.

Seedling Yield Over 18 days



Results

- All seedlings appeared 6 days after broadcasting
- After 2 ½ weeks the Organic choice seedlings were 3 in., the Citrus were 2 in. and the Logan Square soil came to ½ in. in length.
- The Organic Choice came up with the most seedlings per container followed surprisingly by the Citrus soil and lastly the Logan Square soil yielded the smallest amount.



Problems!

- The pH tester was defective
- Weather was cloudy about 50% of the study
- North facing windows don't receive as much sunlight as other cardinal directions

Why? Oh, Why?



The results conclude that the premixed soil types with high concentrations of premixed organic compounds did better than the soil dug up from Logan Square. This means that even the water absorbing, acidic Citrus soil was able to achieve higher yields simply because of the amount of organic compounds already balanced in the mixture.

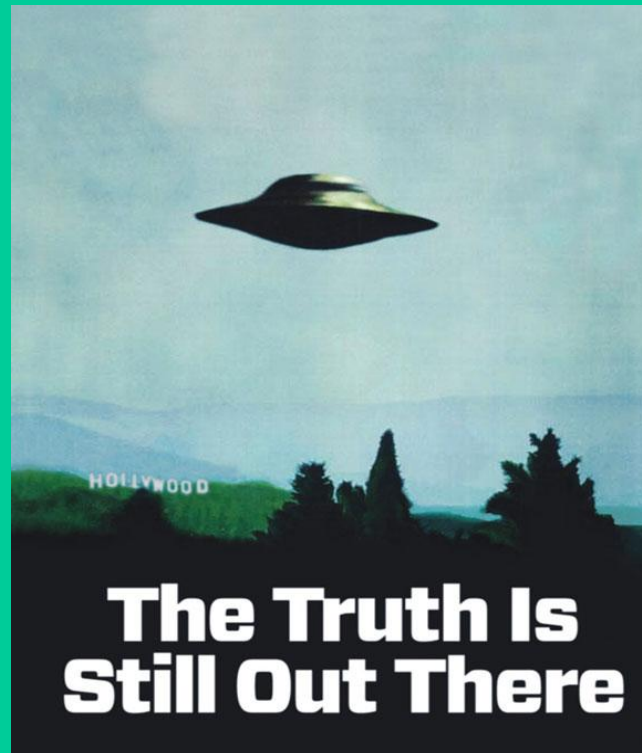
To obtain other results

- Instead of simply testing one local site I could have tested many of them
- Altered nutrients by mixing in organic compounds
- Changed the sunlight direction
- Used grow lights



Questions, Questions, Always More Questions

Id like to investigate which soils throughout
Chicago are the best for growing
Chamomile



References

- Nidagundi, Rajeshwari, Hegde, Laxminarayan(2007). Cultivation prospects of German chamomile in South India. CSIR. 135-137
For information regarding hardiness, seasons to grow, and growth.
- A. Pirzad, H. Alyari, M.R. Shakiba, S. Zehtab-Salmasi, A. Mohammadi(2006). Essential Oil Content and Composition of German Chamomile at Different Irrigation Regimes. Journal of Agronomy 5 (3): 451 - 455
Regional growth, soils and yields.