



Save The Monarchs!

Our goal is to help save the monarchs. Some reasons why the monarchs are dying is because of swallowtail and pesticides. Swallowtail is a weed that looks like milkweed but starves monarchs. The reason why we chose this project is because monarchs are important to the world. They help pollinate which helps farmers grow crops. Milkweed is the only thing monarch larvae eat. Because the milkweed is dying, the larvae will starve to death. There are not a lot of monarchs left because of those reasons. We have a butterfly garden in our school. We built it last year to help the monarchs with their migration. Milkweed is a weed so people kill it if it grows in their yard or garden. But it is a very helpful plant to the monarch. That is why we are trying to save milkweed and the monarchs.



Big Problems for Monarchs



1. Based on a 2014, twenty year comparison, the population of monarch butterflies west of the Rocky Mountains has dropped by more than 50 percent since 1997. The population east of the Rockies have declined by more than 90 percent since 1995. Nearly a **BILLION** Monarchs have vanished since 1990.
2. Swallowtail is a BIG problem for Monarchs. If Monarchs lay their eggs on Swallowwort and the caterpillars eat the Swallowtail, they starve to death because they can't digest it.
3. People have been spraying milkweed with herbicides thinking that milkweed is just another weed. Milkweed is NOT just another weed. Milkweed is what monarchs depend on to survive.

Milkweed Compared to Swallowart

Milkweed looks very similar to Swallowart. But unlike Swallowart, monarch caterpillars can eat milkweed. Milkweed can be 3 feet tall, and Swallowart can be 3 1/2 feet tall. Milkweed does not have little areas that bloom but Swallowart does. Butterflies mistake Swallowart for Milkweed and they lay their eggs on it. Then, when the larvae hatch from the eggs, they will try to eat the Swallowart, but they can't digest it, so they starve to death.



swallowart
milkweed



Our Plan For Growing Milkweed

We are growing milkweed in 7 different conditions: aquaponics, plain (seed not touched), refrigerated, frozen, heated for 5 seconds, heated for 20 seconds and scratched with a nail file. We plan to grow milkweed plants and then transplant them outside in the spring if they are ready. We hope they grow.

Observations

We mixed two different types of milkweed - common and swamp. We watered all of them equally (not including aquaponics). They have not grown yet. Milkweed is not easy to grow like other weeds are. One of our aquaponic seeds cracked.

cracked seed shell



cracked seed shell

Observations pt.2

We planted our milkweed on January 15th. We have not seen any growth or sprouting. We realized that milkweed does not grow as fast as any regular weed. We learned from Mrs. Carol South, a butterfly/milkweed specialist, that you need to give your milkweed seeds a fake winter. You must keep the seeds in the freezer for 3 months. When you take the milkweed out there must be at least a 30 degree difference. After about one day the outside will crack and that is a good sign.

Common Milkweed



Swamp Milkweed



What we Learned from our Research

We learned that the seeds **MUST** go through a winter, even if that winter is a freezer. Scientists cannot only work on stopping the use of pesticides that kill milkweed. They must also get out the word that in order to help save the monarch, people need to grow milkweed! Just because it is a weed, milkweed is difficult to grow.

References

WWF/natural habitat adventures

www.fcps.edu

Monarch Joint Venture

cc Dan Mullen (swamp milkweed picture)

cc Joshua Mayer (common milkweed picture)

Mrs. Carol South, president of the Rochester Butterfly Club