

Don't Eat Flies!

Category: Chemical and Material Sciences

Purpose

The purpose for my project is to make a better fly trap so people don't have so many dead flies around their homes. Many flies reproduce everyday! Because of this, they will end up inside homes. I want to change that. I want to make a more effective and less expensive fly trap than the ones found in stores. Flies are not only annoying, but they spread diseases and bacteria. When I was doing research, I found that these insects can easily fly to get into decaying food and waste. For my project, the average cost of my fly trap is about \$9.00, a fly trap at Lowes is \$15.00. I believe this will impact many people because they will not have to pay so much, for such a small cause.

Research/Question

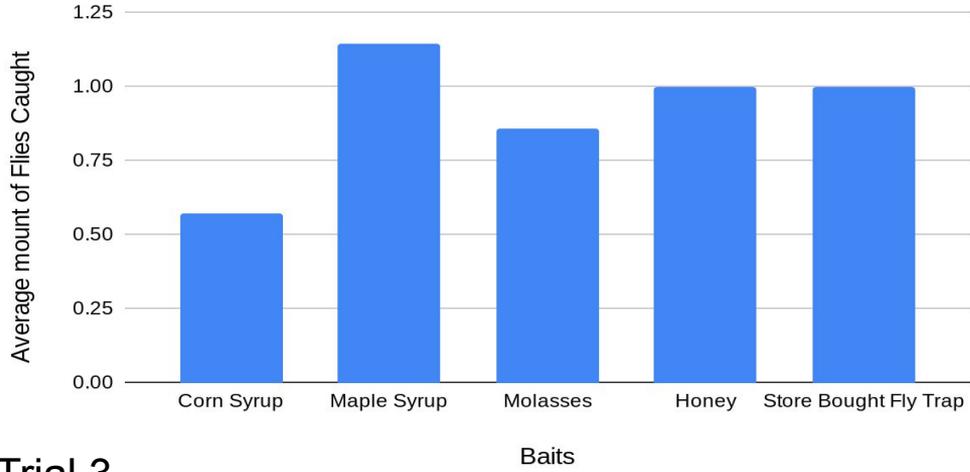
Which type of liquid bait, in a homemade fly trap, will be the most effective at catching the most flies?

If I change the different liquid baits I use for my homemade fly trap, then count the flies that were caught in the traps, I think that the corn syrup bait will capture the most flies. I think this because in my research, I found that corn syrup is mostly made of a sugar substance called glucose(FDA.gov) and I also know that flies are mainly attracted to sugary substances. I also believe this because on sciencebuddies.com I learned that the bait is suggested to be a liquid so the flies drown, and while corn syrup is a liquid, it is also sticky, so it will result in more flies getting stuck in the corn syrup.

Procedure

1. Take Gatorade caps off.
2. Heat kitchen knife.
3. Cut 2 ½ inches (6.35 cm) of the top of the bottles off.
4. Let bottles cool for ten minutes.
5. Flip the top of the bottles upside down.
6. Keep the bottles upside down and place inside the bottles, with the larger side of the top holding it up.
7. Fill the bottles with 40 mL of each liquid
8. Put bottles outside in backyard on a flat surface. (Or on a patio)
9. Check on fly traps every 24 hours. (collect data while doing so)
10. After 7 days stop using the traps.

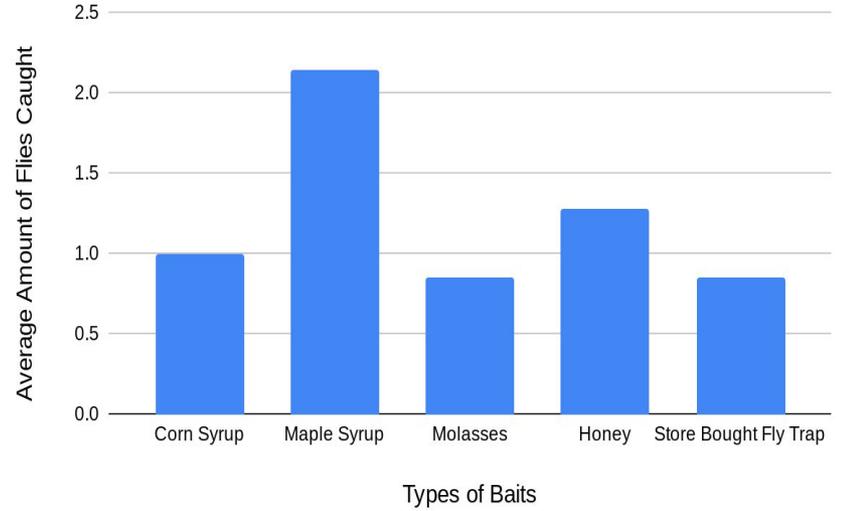
The Effect of The Type of Trap on the Average Amount of Flies



Trial 1

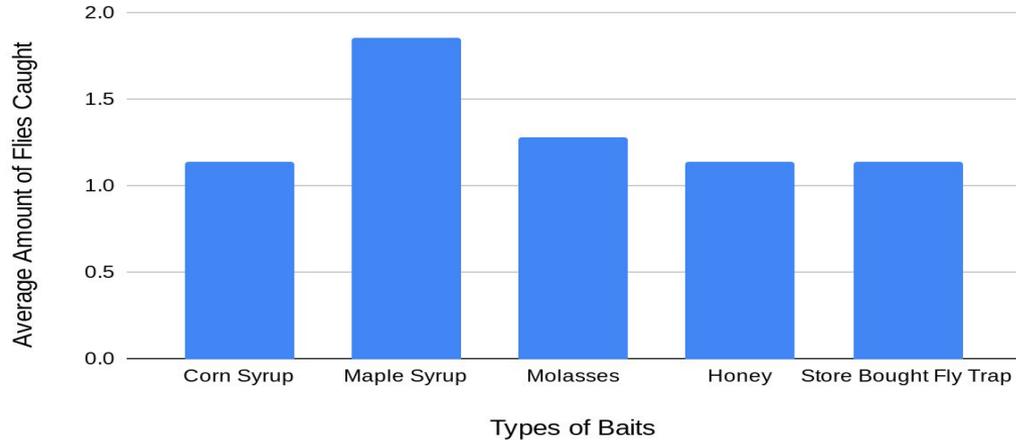
Trial 2

The Effect of The Type of Trap on the Average Amount of Flies



Trial 3

The Effect of The Type of Trap on the Average Amount of Flies



Results

The original purpose of this project was to find out which of four liquid baits, including maple syrup, corn syrup, molasses, and honey, will capture the most flies in a homemade fly trap. My experiment resulted in maple syrup catching the most flies out of the four liquids. My graphs show that maple syrup had caught an average of about two flies more than the other traps. The overall average is two flies per trial. As the data show, maple syrup is more effective and cheaper than the store bought fly trap.

Conclusion

My hypothesis was that corn syrup would attract and capture the most flies. The results indicated that my hypothesis could not be supported, because my data shows that the maple syrup had caught the most flies out of the other 4 baits. Due to the results of my experiment, a question that could be considered would be, if I used sugar water as another bait, with the other four liquids, would it capture more flies than the maple syrup? I believe that the flies were more attracted to the maple syrup because it had a big patch of sun hit it every morning, making it more fragrant and attractive. It could also be that the maple syrup is viscous.

References

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