

# A Bug's Life

By: Ameenah, Ellen, Neil, and Sarina

# Introduction

- Imagine seeing everything as pixels? How could you smell things without a nose?
- Our experiment will answer the question of what smells insects are attracted to. After this experiment we will know what not to pack as a lunch if you don't want insects surrounding you.
- Insects have several types of olfactory sensilla sense organs that collect chemical molecules. These molecules enter through the pores and into the sensilla.

# Hypothesis

- Day 1 hypothesis: The hypothesis was that the meat and the Crush soda would attract most insects because the soda is sugary and so is nectar. Also, the meat is a food.
- Day 2 hypothesis: Mustard will attract the most insects because it is natural and edible. Bug spray will attract the least because its goal is supposed to repel bugs away.

# Materials

- Day 1 materials: 6 sticky traps, meat, soda, fruit, sap, and salt.
- Day 2 materials: Scents: Deodorant, Soap, hand sanitizer, Bug Spray, Mustard, a Wasp, 8 sticks, and 8 insect traps for each

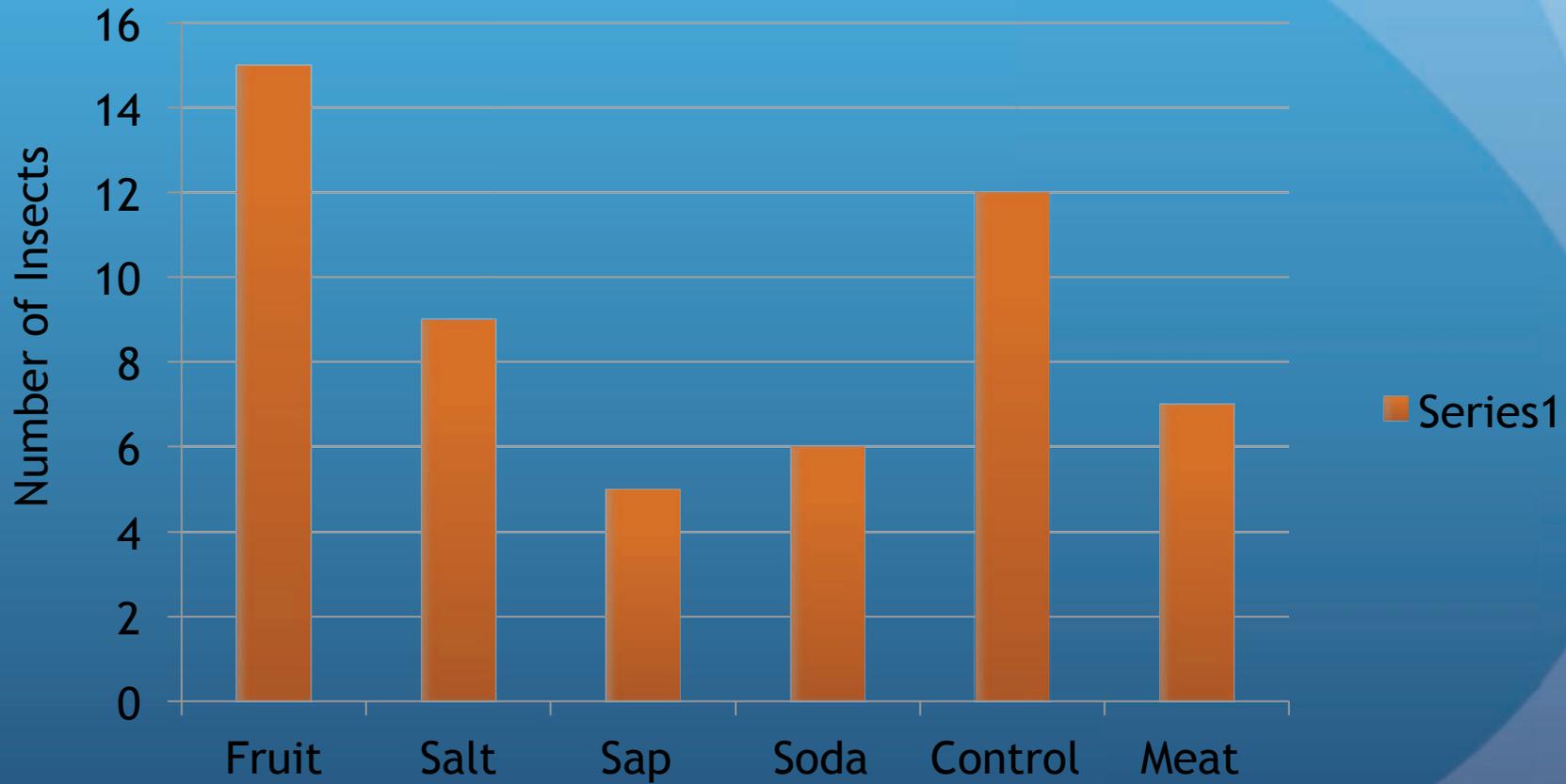
# Procedure

- Day 1: Lie the sticky traps down on the ground.
- Put the scents on each one, but leave one alone.
- Check how many bugs are on the traps every hour for 3 hours

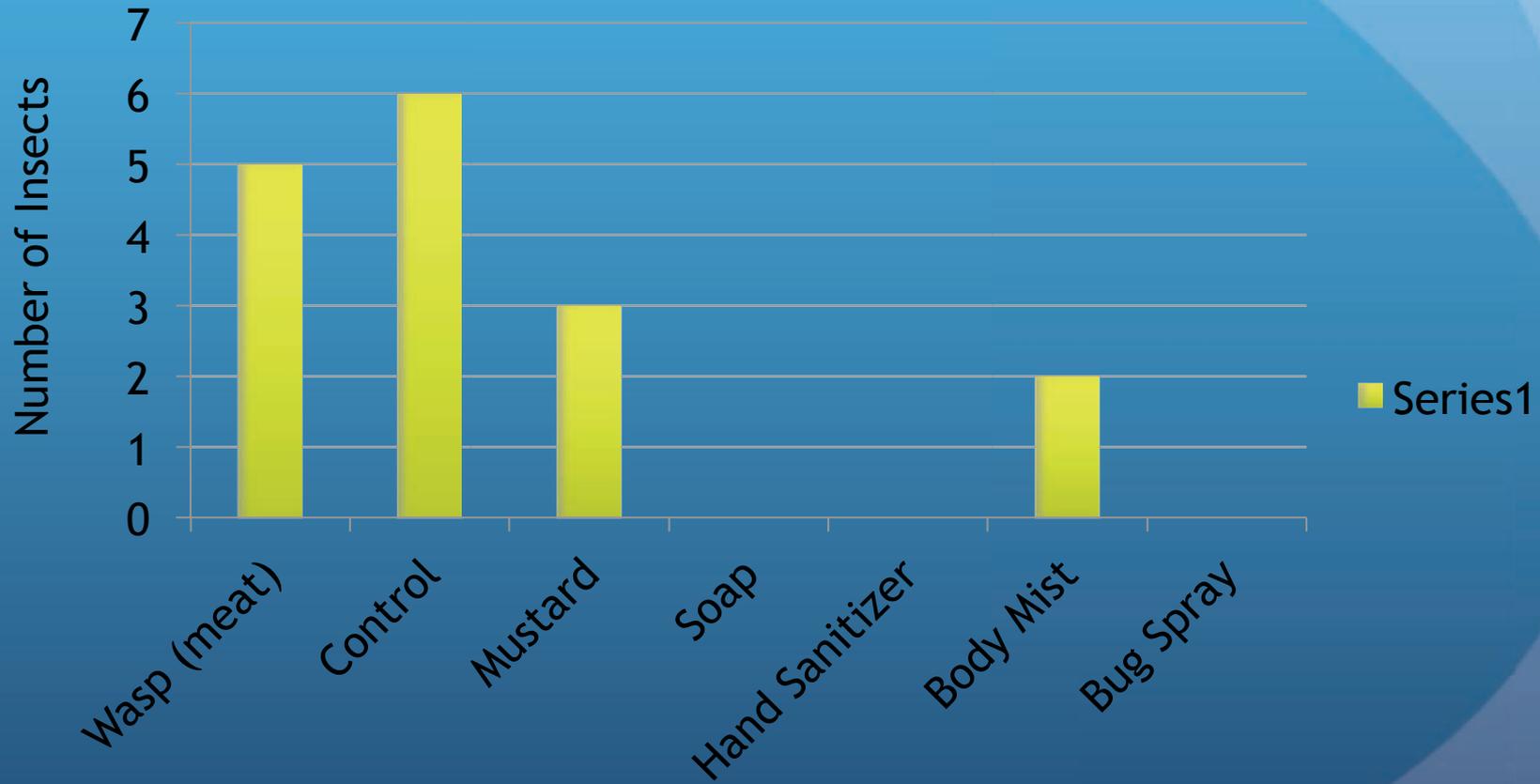
# Procedure

- Day 2: Collect the sticky traps.
- Lie the sticks down and attach the sticky traps to them. (In case of wasp, use a separate trap and add meat to it. When the wasp lands, remove the meat for best results.)
- Put the scents on each of the traps, but leave one alone.
- Wait an hour and then count how many bugs there are on the traps.
- Repeat the previous steps two more times.

# Day 1 Graph



# Day 2 Graph



# Average Insects Caught Each Hour

p value for 1<sup>st</sup>-2<sup>nd</sup> hour= 0.0379

P value for 2<sup>nd</sup>-3<sup>rd</sup> hour= 0.0391



# Discussion

- Day 1 results: The fruit attracted the most bugs, but didn't attract any bees or wasps. The meat was the only food that attracted one wasp.
- Day 2 results: There were 8 wasps trapped in the meat sticky trap, one ant in the body mist, 3 insects in the mustard, and none in the rest of the traps.

# Discussion

- Our data mainly supports our hypothesis. For day one we thought that the insects would be attracted to the meat and the soda. The only wasp was attracted to the meat, but wasn't attracted to the sugary soda. For day 2, our hypothesis was correct. We thought that they would be attracted to the meat and the mustard since they were edible. There were 8 bees on the sticky trap with the meat and there were other insects on the mustard trap.

# Improvements

- If this experiment were to be re-done, we would use only one trap color, either yellow or clear, so the insects would feel it was not unordinary. Also we could of changed the traps every hour so that more insects could be caught.
- Another experiment we could do based off this experiment is how the scent relates to an insects intelligence.

# Pictures



Insect traps



Many wasps were attracted to the meat



# Bibliography

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THANK YOU!!

