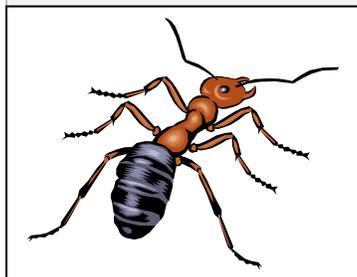


Journal of Entomology

By Brian R. (Research Design and Introduction), David S. (Data Collection and Materials), Kevin B. (Results and Hypothesis) Alisa F. (Analysis Further Questions).

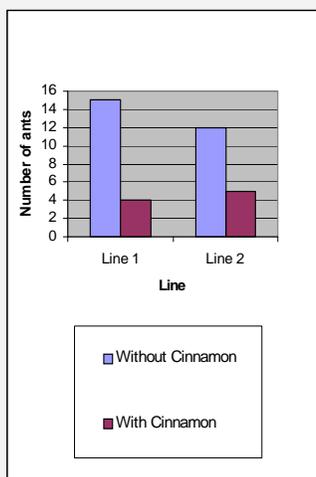
Subjects Safety Statement

We certify that none of the subjects that were used in this experiment were harmed in any way. The materials and methods used were safe for the ants.



Graph 1

Number of Ants Crossing a Line With and Without Cinnamon



Cinnamon and the Path of Ants

Research Question: How can we repel ants without the use of noxious chemicals?

What We Tested

Introduction

We all know that ants can cause problems. If they get into your house, they may make their way to your pantry and invade your favorite food!

There are many ways to get rid of ants. One of the most common ways is to use poisonous spray. This may get rid of ants for a short time, but it kills the ants and can be bad for the environment. We wanted to test an alternative way to keep ants away that will not kill our insect friends or harm

the environment. We heard one way to do this was with cinnamon.

Hypothesis

We hypothesized that not as many ants would cross a line with cinnamon as one without cinnamon.

Research Design

First we found an ant hole. Then we drew a four-foot long line three feet away and counted how many ants crossed the line in 10 minutes. Then we spread cinnamon along the line, and counted the

amount of ants that crossed the line in the same amount of time (10 minutes). We did this two times (one time each on opposite sides of the hole).

Materials

We used a line of white thread to mark a line three feet away from the ant hole, which we measured with a tape measure. We used common cinnamon to cover the line, and a stopwatch to measure the 10-minute period. We used paper and pencil to tally the amount of ants that crossed the line.

What We Found

Data Collection

We counted each ant that crossed the line and made a tally mark on a piece of paper when we saw one. The number of ants crossing the line was our dependent variable. Our independent variable was the presence of cinnamon. We called the line to the north of the hole Line 1 and the line to the south of the hole Line 2.

Results

We counted 15 ants that crossed Line 1 without cinnamon. We counted 12

ants that crossed line 2 without cinnamon.

We counted 4 ants cross Line 1 with cinnamon. We counted 5 ants cross Line 2 with cinnamon.

See Graph 1 for a comparison.

Analysis

We found that less ants cross the line with cinnamon. Our hypothesis was correct.

We saw that ants turned away from the line when they saw the cinnamon. In

fact, many of the ants went around the line so they wouldn't have to cross it.

Further Questions From Entomologists in Chemistry

We don't know why the ants don't like the cinnamon, but we would like to find out. We thought it would be interesting to try this same experiment with wet cinnamon.

As entomologists in the field of chemistry, we are curious about why the chemical composition of cinnamon repels ants.