

# TINY GARDENERS WORKSHEET

Many plants use ants to collect and transport their seeds. The seed *elaiosome* acts as a 'food reward' for the ants. The ants will eat the food reward and discard the remaining seed. This often means that the seed is planted in or near the ants' nests.

Not all tree seeds look the same, their size and shape can be very different. So what type of seeds do ants prefer? And which seeds are 'better' at being ant-dispersed?

The three types of seeds we are using for this experiment are:



**A** *Acacia longifolia*  
(Sydney Golden Wattle)



**B** *Acacia melanoxylon*  
(Australian Blackwood)



**C** *Kennedia rubicunda*  
(Dusky Coral Pea)



## HYPOTHESIS

Ants will prefer particular types of seeds. These will be more likely to be collected by ants when placed outside.

## PREDICTION

What do you think? Are ants going to collect the seeds with the biggest food reward? Or the smaller seeds that are easier to carry? Maybe they'll go for something in-between?

Write your prediction here: \_\_\_\_\_

## EXPERIMENT

You're going to place out some seed dishes with different types of seeds in them. You will monitor these dishes over a week and see how many seeds get collected

Put 20 of each seed type into their respective dishes i.e. seed type A goes into tray A, B goes into B and C goes into C.

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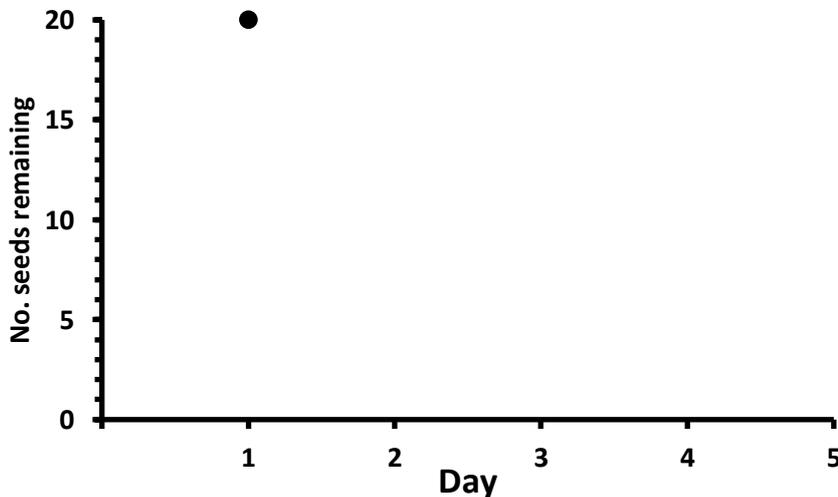


Check your dishes once a day for 5 days and count how many are remaining in each dish. Record your data here.

Seed Type	Day 1	Day 2	Day 3	Day 4	Day 5
<b>A</b>	20				
<b>B</b>	20				
<b>C</b>	20				

Did you see any ants collecting seeds while you were putting out or checking your trays? If so write some notes about your observations.

Once you have finished your experiment have a look at your data and see if it matches your predictions?



See if you can plot your data here. Use a different line colour or style for each seed type and write a key for this below.

**Figure Key (line types)**

Seed A :

Seed B :

Seed C :

So, which seeds were the ant's favourite? Which seed got collected most, or got collected the fastest? Why do you think that is the case?