



# The Great Sunflower Project

Welcome to 2009!

We are so glad that you are joining us! Please collect data as many times as you can this summer. We'd love to have a sample from the early part of each month and the later part of each month for as many months as you have flowers.

How to sample:

What you need: Sunflowers, a place to sit comfortably, a data sheet (on the accompanying sheet), a pen or pencil, and a watch. You might also bring a camera. After watching, you'll need a way to check the temperature.

Here are the five steps:

- 1) Set yourself up near your plant. Take a look at your garden and count how many sunflower plants are blooming. We recommend a cup of coffee or tea...
- 2) Focus in on one plant, count and record the number of open flowers on your plant. Don't count older flowers that might not have pollen or nectar. You can tell if a flower is old by touching the center part and seeing if your finger picks up pollen.
- 3) Write down your starting time (e.g. 10:00 am).
- 4) For each bee that visits, write down it's arrival time..
- 5) Stop once you have seen five bees or 30 minutes have passed

If you can, we would love to have photos of the bees. We'll send an email outlining how to best take pictures. You can also record the type of bee (bumble bee, honey bee, green bee or other, we've put a guide on the datasheet). Remember, seeing no bees is just as important as seeing bees.

When you get back to the house, write down the current air temperature on the data sheet. Then, either enter the data online ([www.GreatSunflower.org](http://www.GreatSunflower.org)) or send us your data sheet.

Thanks so much,

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## DATA SHEET

Your User Name: \_\_\_\_\_ Garden address (if you have more than one): \_\_\_\_\_

Please use these types of bees: Honey bee, Bumble bee, Carpenter bee, Green bee, Other or Don't know.

Month:	Date:		Date:	
Start time (e.g. 10:00 am). If you see no bees in 30 min, write no bees here.				
Temperature in degrees Fahrenheit				
#sunflower plants blooming in your garden				
# open flowers on your plant				
	Time of arrival (e.g. 10:03 am)	Type of bee Not required	Time of arrival (e.g. 10:03 am)	Type of bee Not required
First bee				
Second bee				
Third bee				
Fourth bee				
Fifth bee				

Remember: Some of the most important data is when you do not see bees. Please be sure to share those data!!!  
Comments (Such as what else is in bloom in your garden that's attracting bees?):

## BEE GUIDE



<u>Bumble bee</u>	<u>Honey bee</u>	<u>Carpenter bee</u>
Are yellow and black (though some have red or white) and hairy.	Have gold to dark brown or black shiny abdomens with subtle stripes	Are often but not always totally black in color
Their abdomens are hairy unlike a carpenter bee.	While they have hair, the hairs are sparse.	The top of the abdomen is shiny not hairy like a bumble bee.
Are un-aggressive unless you appear to be attacking their nest	Generally smaller than either bumble bees or carpenter bees.	Have strong mandibles that they use to dig into wood where they establish nests
		Are not likely to sting unless handled