



The Great Sunflower Project

Welcome to 2010!

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. We also changed the protocol. You do not have to record temperature anymore AND we now ask that you simply record all the bees in 15 minutes (rather than stopping after 5 bees and sampling for 30 minutes). We're hoping that will make it easier!

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.

Pick a warm sunny day and if possible, sample in the morning. We recommend 9 or 10 am.

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 the plant, write down it's arrival time (e.g. 10:02 am)
- 5) Stop after 15 minutes have passed

If you can, we would love to have photos of the bees. You can upload your photos on Flickr and link them to our Great Sunflower Group. 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, please enter the data online (www.GreatSunflower.org).

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.				
#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				
Sixth bee				
Seventh 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. Their abdomens are hairy unlike a carpenter bee. Are un-aggressive unless you appear to be attacking their nest	Have gold to dark brown or black shiny abdomens with subtle stripes While they have hair, the hairs are sparse. Generally smaller than either bumble bees or carpenter bees.	Are often but not always totally black in color The top of the abdomen is shiny not hairy like a bumble bee. Have strong mandibles that they use to dig into wood where they establish nests Are not likely to sting unless handled