

# Practical Steps and Tips: Collecting Pollen for the Pollen Project!

We can guess around at what our bees have to eat. If we trap pollen regularly and pay a lot of attention to what is blooming, we can make some good guesses. But this project will provide real reliable data.

## What you will need:

**1. A minimum of 6 honey bee colonies in 10-frame Langstroth hives.** The pollen traps we will be using only fit on 10-frame equipment. The minimum of 6 colonies is because different colonies, even in the same apiary, can sometimes bring in a different array of pollen variety. Therefore each sample should be taken from at least 3 colonies if possible. You may not want to trap pollen from a weaker hive. So to be sure you are always able to collect from at least 3 colonies, it is highly recommended that you have at least 6 colonies.

**2. These hives should be close to your house.** The project requires a morning and late afternoon visit to the hives on each day that pollen is collected.

**3. A minimum of 4 plastic front porch pollen traps.** These are sold by Betterbee and Brushy Mountain. The plastic front porch type is the only effective design for collecting pollen one day each week. For our purposes, we **do not** want to trap pollen every day (as is required with other trap styles like Sundance), because it changes the bees' foraging habits to collect more pollen than normal. Part of this study is to find out how much pollen the bees are naturally collecting at different times of year. If you would like to use a different trap style, let's discuss it. The minimum of four traps is because there could be times when you will want to move a trap from one hive to another, and you want to be able to continue to trap from three colonies during the moving process. If you want to use more traps than just four, or a different style in addition, that is fine.

**4. Plastic vials** for storing pollen samples (2 per sample) – will be provided.

**5. Accurate scales** that can measure down to at least 0.1 ounces and up to at least 5 lb. (preferably digital).

**6. Access to a weather forecast** so that you can choose the best day of the week to collect pollen.

**7. A little freezer space** for up to 4 to 8 samples of pollen at a time, 2 oz. each.

## Collecting Pollen, 9 steps:

**Initial Step:** (Only for the first time) Attach the pollen traps to the hives. Close the drone escapes (use a piece of masking tape or stuff grass into them). Leave the trap-gates open so they do not collect pollen. Wait about 3 days for bees to become fully accustomed to the trap. **You may want to cut a piece of wood to the perfect dimensions for propping the gate open and for holding the gate closed.**

**Step 1:** Choose the sunniest day of the week to collect your pollen samples. Clear days with the high above 70°F and not above 95°F are best.

**Step 2:** On the morning of the day you trap, close the trap-gates early, before the bees become active, and open the drone escapes. Wipe the collection tray clean.

**Step 3:** At least 2 or 3 hours before dark, visit the hives and open the trap-gates.

**Tip:** The gate folds up against the roof of the trap, and you may need to scoot bees out of the way with a stick or the flat edge of a knife blade.

**Tip:** You may want to wait an hour after opening the trap before harvesting the pollen if there are bees bearded all over the entrances, to give them a chance to move inside.

**Tip:** It is actually helpful to stand in front of the active hive while working the gate to prevent incoming bees from getting in the way – just for a short time.

**Tip:** The first couple times you collect pollen, the bees may have trouble going through, and end up hanging around outside. You can take the trap off completely to let the bees inside. This situation improves as the bees get accustomed to the trap. Being consistent to trap every week helps.

**Step 4:** Harvest the pollen from the trap drawers, pouring all the pollen from all the traps into one container and bringing it indoors. Return the drawer to the trap.

**Step 5: IMPORTANT:** thoroughly mix the sample in such a way that the pollen pellets are not damaged.

**Step 6:** Weigh the pollen, divide by the number of traps harvested from for an "average per hive yield".

**Step 7:** Fill out the "sample record sheet." The most important questions to answer are in bold (name, location, date, total pollen harvested today in pounds, average per colony in pounds, and any notes you can provide regarding the bloom season (wild plants that are starting to bloom, in full bloom, or going out of bloom) and the plants you suspect the pollen to be from. Include the scientific names if you can. Recording the times of closing and opening the traps would be important if they were abnormal times.

**Step 8:** Fill two plastic vials with pollen (each vial is about 1 ounce), mark the vials with the date, and enclose them together in a sandwich bag along with the "sample record sheet". It is vital that the data not be separated from the sample. Keep frozen until shipped. **(1 sample = 2 vials taken from the mixed pollen of 3 or more traps in one apiary, trapped throughout one daylight period, labeled with the date, and contained in a sealable bag with a completed Pollen Sample Record Sheet.)**

**Step 9:** Wash all containers that contained pollen to avoid any cross contamination between samples. Preserve or use the rest of the pollen as you like.

**Step 10:** Mail the vials to Michael Staddon \* 1911 Buffalo Calf Rd \* Salem, WV 26426. For the pollen project grant this was done monthly, with 2 to 4 samples being shipped each month. Keep the samples frozen until they are mailed. In other situations you can trap pollen on whatever dates will meet your objectives. You may just be curious to see what pollen types the bees are collecting at a specific time.

**Important notes:**

All the pollen you harvest above the 2 ounces needed to fill the vials you can keep for yourself - to eat, to sell, or to add to your pollen patty mix for the bees. If the total pollen from all traps on a given day does not fill two vials, just send the total amount.

After collecting pollen from a trap, leave the pollen traps on the hive, with the trap-gates open (not collecting), and the drone escapes open, until the next pollen collection date.

**It is important to bring the pollen indoors the same day that it is trapped**, because the nighttime dew and dampness can spoil it. It is also important to trap the pollen both morning and afternoon because the bees sometimes work different plants at different times of day. For these reasons it is only practical to trap pollen from hives close to your house which you can get to quickly both morning and evening.

Is it easy? No promises.

**Keep our goal in mind:** to get an overall picture (through an entire year or at a specific time), of all the plant species that the bees are utilizing for pollen, and the amount of pollen each species contributes. Each pollen sample taken is a snapshot of what is available to the bees on that date. **You are helping to contribute valuable data to the whole Appalachian beekeeping community.**

Weather can make things difficult so take the opportunities afforded. The best overall picture of pollen intake through the season will come from evenly-spaced samples, but we must work with the weather.

**Cost: \$30 for sample treatment and \$50 for analysis for 1 sample, total \$80.**

**Include check with sample made out to Michael Staddon and mail to the address below.**

Further questions?

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