

SOP No. EM-8	Page 1 of 2	
Collection of Insect Samples		
Revision #6	Replaces: 2/27/12	Effective: 9/3/19

1. Purpose and Scope: Insects are usually collected to measure the amount of pesticide present on or in insects which have been exposed to a pesticide treatment. If pesticide residues in/on insects are high enough, there might be concern for indirect intoxication of animals that feed on the insects. The environmental monitoring plan (EMP) might call for measuring the effect of pesticide treatments on non-target insects. The EMP of a program will specify the kind of insects to collect (e.g., targeted grasshoppers collected for a grasshopper control program, or non-target scarab beetles which might be avian dietary items collected under the drip-line of a tree having received a drench treatment in an eradication program.) The EMP will also specify where and when to collect insect samples. Any instructions on insect sampling and documentation found in the EMP for the program supersedes instructions contained in this SOP.

2. Supplies Required: To request sampling equipment and other supplies, contact Richard King, 305-278-4905, or Lisa Mosser, at the CPHST lab in Miami, at 305-278-4902 or email the Environmental Monitoring Supplies Checklist to richard.a.king@usda.gov, or lisa.k.mosser@usda.gov.

2.1 tweezers: fine, lightweight forceps are most effective--obtain locally

2.2 12" by 12" re-sealable plastic bags

2.3 field log book

2.4 ice chest with wet, dry, or re-usable ice packs--obtain locally

2.5 baby wipes-obtain locally

2.6 indelible marker-obtain locally

2.7 disposable gloves

3. Collecting insect Samples—Wear disposable gloves.

3.1 Wear disposable gloves. Using forceps, remove an insect specimen from the ground, hive, plant surface or water body. Live insects are preferred if available and if they can be safely collected.

3.2 Place specimen in re-sealable 12" by 12" plastic bag.

3.3 Repeat steps 3.1 and 3.2 until at least 10 grams (about a handful) of the desired species or amount of specimens specified in the EMP are collected. This is considered one sample.

3.4 Seal the bag and label with indelible marker by writing a code that will allow the sample to be matched with its documentation.

3.5 Clean the forceps between samples by wiping with clean baby wipes.

3.6 Place bags into an ice chest to keep chilled until it can be transported from the field and placed in a freezer.

4. Documentation:

4.1 Record observations in the field log book. See SOP EM-12, 'Using a Field log Book'. Include a sketch showing location of the field sampling site and its relation to the treatment site and any sensitive area that might be nearby. A topographical map or aerial photo annotated with the required information should be provided if possible as well as photos or a video of the field sampling site. Be sure to record the the abundance of the dead or moribund insects (e.g., number per square foot), the abundance of healthy insects nearby, and any insect activity that mat be useful for interpreting residue results.

4.2 Complete an APHIS Form 2060. For each insect sample. See SOP EM-13, 'Taking Measurements for the APHIS 2060 Form'. Retain the pink copy for your records and distribute the remaining copies as specified in the EMP.

5. Packaging and Shipping:

5.1 Package and ship the insect samples as described in SOP EM-17, 'Packaging and Shipping of Samples'.