

Quick Start Sheet

4-H Entomology – Digital Insect Collection, First Year (Lot 6026, Class 687B)

Equipment: modern cell-phone camera or any digital camera with a “macro” (♻) setting. For cell-phone cameras, an inexpensive attachable macro lens is recommended (like these: <https://www.easy-macro.com/> or these <https://wiki.ezvid.com/best-phone-camera-lenses> -- there are lots of good models for less than \$20, find one that fits your phone), but some of the newest cell phone cameras can take great close-up images without an external lens. 4-Hers will also need access to a computer with basic photo-editing software, like Photoshop, MSPaint, or GIMP. Keep a notebook to write down the date and location of each image.

1. On a warm day go to a place to photograph insects, such as:

- Sunny meadow with lots of flowers and weeds
- Home garden, farm, or field crop
- Weeds around a lake, pond, or stream
- Weedy edge of a forest or sunny forest trail
- Backyard, neighborhood park, or community garden/arboretum

2. Take lots of pictures of living insects. Look for lots of different kinds of insects, not just butterflies. Beetles, stink bugs, flies, wasps, bees, grasshoppers, and dragonflies are all great subjects for this project. Spiders, centipedes, and other arthropods may also be used for this project. More diversity = more points for County and St. Fair judging. Get pictures of lots of different kinds and worry about identification later.

3. Tips for taking pictures of live insects:

- Wait for insects to land on something, like a sunny flower or leaf.
- Approach slowly and avoid letting your shadow fall on them (shadows may scare them and can reduce image quality).
- Take multiple images of the same insect from different distances, angles, and at different focus settings. Try with and without a flash if the location is dark.
- Try to get the whole insect in the image. Top or front views where the insect’s “face” can be seen are often good places to start.
- Angle your photo and adjust focus so that the background is either out-of-focus or otherwise helps to highlight the subject. A leaf or colored piece of paper held behind the insect can help.

4. Final project:

- 25-50 images. At least four insect Orders correctly identified (each additional insect Order or arthropod Class counts for additional points). Correct common names may be added to each image for additional points. Each species will only be counted once for judging.
- Submission guidelines on back of this sheet

5. More details and photography tips:

Full project guidebook: <https://entomology.ca.uky.edu/files/4hmacrophotography1styear.pdf>

St. Fair rules: <https://entomology.ca.uky.edu/files/6026entomology2019rules.pdf>

St. Fair judging sheet: <https://entomology.ca.uky.edu/files/scoresheetlot6026687b.pdf>

Instructional videos: <https://youtu.be/1niqOQCkKs8>, <https://youtu.be/UHwDi4HlosA>

6. Identification help:

Bugguide: <https://bugguide.net/node/view/15740>

Kentucky Critter Files: <http://www.uky.edu/Ag/CritterFiles/casefile/casefile.htm>

4-H Insect Orders: <https://entomology.ca.uky.edu/files/deptimages/stfairorder.pdf>

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St. Fair 4-H Insect Photography: Photo Submission Guideline Summary



Photographic submission guidelines for Class 687B—First Year Photographic Insect Collection:

1. Each photo must be 1920 pixels wide X 1080 pixels tall.
2. Black bars may be used on the side or the top (but not both) if the main image does not exactly conform to the 1920X1080 size.
3. A white notation box (400 pixels wide X 225 pixels tall or larger) must be placed somewhere in the image. Recommended font is 18pt Arial, non-bold, or any font that is easy to read and that fits in the notation box. The box must contain the following information:
 - [Last Name, County, Lot 6026, Class 687B]**
 - [Date of original photograph/Location of original photograph (this may be apx address or GPS coordinates)]**
 - [Name and brand of camera]**
 - [Basic settings on camera; type of external lens used if any; flash or no flash]**
 - [Insect Order Name – Acceptable Common Name (common name is optional for first year)]**
4. Files must be named “lastname-county-#.jpg” where “#” is an arbitrary number assigned to each file, 1-25 or 1-50
5. Files must be submitted on a USB thumbdrive or similar device with a label attached to it showing “4-Her’s last name-County-Lot Number-Class Number.”

