Purdue Extension Knowledge to Go LaGrange County

LaGrange County 4-H

ENTOMOLOGY

(revised for 2009)

6 possible State Fair Entries

One collection and one poster for each level (grades 3-5, grades 6-8, and grades 9-12) for a maximum of 6 exhibits.

Create an exhibit that shows the public what you learned in the entomology project this year. State Fair Exhibits -- each county may send one Insect Collection and one Poster for each level (grades 3-5, grades 6-8, and grades 9 and up) for a maximum of 6 exhibits per county. Follow the "Notes" under each section (Insect Collection and Poster).

Insect Collection Option

Reference: "How to Make an Awesome Insect Collection," ID 401

- Collect, mount (pins or vials) and identify insects that personally collected in the U.S. only.
- Display your best specimens in a 18 x 24 inch box (es), orientated horizontally, with a label in the lower right hand corner (name, grade, and county).
- Display boxes are expected to include the specified number of insects, and orders (see chart).
- All insects must be accompanied by a label that includes collection date, location and collector.
- All insects must be identified using a second label that includes common name and, depending on grade level, order and family.
- Insects must be properly grouped for display, based on your grade. For example, 4-H members in grade 5 should group the insects identified to order. If your insects are identified to order and family, first put all insects of the same order together, then group those in the same family, and then group insects with the same common name.
- When multiple boxes are used: list the box order (i.e., "box 1 of 3 boxes", and include your name in each box).
- If you choose to add the insect scientific name (this is not required) they must be written properly: either in italics or underscored. The Genus (first name) must have the first letter capitalized. The species (second name) has no capitalization.
- One educational box, based on the theme given, below, is required for grades 9-12, in addition to the insect collection boxes.

Level 1 - *Grades 3-5*

Grade 3 –10 insects, identified and pinned on cards (ID 401 A) 1 box.

Grade 4 –20 insects, mounted (pins or vials). Identify all insects by common name and identify five (5) to order. Include card ID 401B. 1 box.

Grade 5 –30 insects, mounted (pins or vials). Identify all insects by common name and identify 15 to order. Include ID 401C. 1 box.

Level 2 - *Grades 6-8*

Grade 6 –40 pinned insects, exhibit a minimum of 6 orders, mounted (pins or vials). Identify all insects by common name and order. Include ID 401D. Maximum 2 boxes.

Grade 7 –50 pinned insects, exhibit a minimum of 8 orders, mounted (pins or vials). Identify all insects by common name and order. Identify 10 to family. Include card ID 401E. Maximum 2 boxes.

Grade 8 –60 pinned insects, exhibit a minimum of 10 orders, mounted (pins or vials). Identify all insects by common name and order. Identify 30 to family. Include card ID 401F. Maximum 2 boxes.

Level 3 - *Grades 9-12*

Grade 9 – 70 insects, exhibit a minimum of 12 orders, mounted (pins or vials). Identify all insects by common name, order, and family. One educational box; theme: insect behavior. (1-3 collection boxes plus 1 educational box.)

Grade 10 –80 insects, exhibit a minimum of 14 orders, mounted (pins or vials). Identify all insects by common name, order, and family. One educational box; theme: insect pest management. (1-3 collection boxes plus 1 educational box)

Grade 11 – 90 insects, exhibit a minimum of 16 orders, mounted (pins or vials). Identify all insects by common name, order, and family. One educational box; theme: insects in the environment. (1-3 collection boxes plus 1 educational box)

Grade 12 – 100 insects, exhibit a minimum of 18 orders, mounted (pins or vials). Identify all insects by common name, order, and family. One educational box; theme: benefits of insects. (1-3 collection boxes plus 1 educational box)

Poster Entomology Option

Posters must be displayed horizontally, sized 22" x 28", mounted on a firm backing (foam-core board or other), and covered in clear plastic or other transparent material. Be sure to include a label with your name, grade, and county. Choose one of the topics listed below,

appropriate for your grade in school, and use that topic for your exhibit title, so the judges know which activity you completed. You can also use a creative subtitle if you wish.

Entomology 1 (Grades 3-5) Display a poster based on the following activities:

- *Big Mouth Bugs* -- Show the 4 different mouth types that you studied. Include the completed chart describing the mouth types, an insect with this mouth type, food they eat, and where these insects might be found.

- *Pit Stop* -- Make two pit traps and use them to collect insects. Exhibit your completed record sheet. You can use the format given for your data collection, or make your own. Include some of the insects, or pictures of your trap and insects collected.

- *Buz-z-zing Around* -- Present three to five ways that insects communicate. Include an insect, or picture of each insect that communicates in each of the ways you are describing.

- *FACETnating!* -- Show how insects see (compound eyes) and explain how they see colors.

- *Ants and Uncles* -- Compare insects with their non-insect relatives by completing the chart in your book (copy or make your own). Include some of the insects and their non-insect relatives, or pictures of them, on your poster.

Entomology 2 (Grades 6-8) Display a poster based on the following activities:

- *Dots Before My Eyes* -- Show the importance of color for communication, camouflage, and defense. Use the chart in your manual (copy or make your own) and one other method.

- *Designer Bugs* -- Show your creative talents! Design an insect and show your drawing and model (or picture of your model). Give it a name, genus, species, and indicate the habitat you would expect your insect to live in.

- *How Sweet it Is* -- Show how you completed the experiment using water, a diet drink, and a regular drink. Show what you observed using the chart given or one you make yourself. You may use the scientific method (described in Level 3, Chapter 1), if you want to try it.

- *Computer Bugs* -- Show how you raised mealworms with pictures, information, and the completed chart (copy or make your own).

- *Things that Buzz in the Night* -- Exhibit your night collection set-up and results. You can use pictures, drawings, and include insects (real or pictures) that you saw. Include the chart.

- *GrassHOPper To It* -- Show some different ways that insects move by completing the chart and a labeled drawing of an insect leg.

Entomology 3 (Grades 9-12) Display a poster based on the following activities:

- *A Meal from a Worm* - Show how you used the scientific method to study how mealworm larvae survive on a fixed amount of food. Include your hypothesis, data charts, and conclusions. Drawings or pictures will help tell the story.

- *BEEhavior* - Show how you used the scientific method to study honey bee response to symbols. Include your hypothesis, data charts, and conclusions. Drawings or pictures will help tell the story.

- *Bugs R Us* -- Show how you taught others about entomology. Include all the items listed in the planning outline (copy or make your own). Drawings or pictures will help tell the story.

- *Planting for Butterflies* -- Show how you planned, planted, and cared for your butterfly garden. Include the table (copy or make your own) and information about any help you received, resources you used (people and publications), and the cost of your project. Drawings or pictures will help tell the story.

- *The Monarch: King or Queen?* -- Explain the life cycle of the monarch by completing the table (copy or make your own). Discuss migration (when and where) of monarchs. Research (library or Internet) to find out more. Drawings or pictures will help tell the story.

Entomology Independent Study (Grades 9-12)

Entomology Advanced ***Topic*** - Learn all you can about a topic of your choice and present it on a poster. Include a short manuscript, pictures, graphs, and list the works cited to describe what you did and what you learned. Title your poster, "Advanced Entomology"

Entomology Advanced ***Mentoring*** -- Exhibit a poster that shows how you mentored a younger 4-H member. Include your planning, the time you spent, the challenges and advantages of mentoring, and how the experience might be useful in your life. Photographs and other documentation are encouraged. Title your poster, "Advanced Entomology--Mentor".