

## **Division – Entomology**

– Entomology exhibits give 4-H'ers the opportunity to demonstrate their knowledge about insects and insect displays. This category has multiple projects that allow 4-H'ers to progress over numerous years. For help getting started with this project contact your county 4-H extension office.

Rules –

1. Specimens in display collections should be mounted properly and labeled with location, date of collection, name of collector, and order name. Follow mounting and labeling instructions in the Nebraska 4-H Entomology Manual. Boxes are preferred to be 12" high X 18" wide, and landscape orientation, so they fit in display racks. Purchase of commercially made boxes is allowed. All specimens are to be pinned and labeled by the exhibitor. No purchased specimens allowed.

2. No projects over 50 pounds allowed.

Eligibility - All static exhibits must have received a purple ribbon at the county fair to advance to the State Fair. Exhibitors may, and should, correct and update collections for competition at the State Fair.

Quota - 5 entries per county for Class 6 Macrophotography

Scoresheets, Forms, and Contest Study Materials - additional resources can be found at <https://go.unl.edu/ne4hentomology>.

Special Awards - Premier 4-H Science Award is available in this area. Please see [click here](#) for more details.

## **Class - Entomology**

**\*H800001 - Entomology Display, First-Year Project** - (SF186) - Collection to consist of 25 or more different kinds (species) of insects representing at least 6 orders. Limit of one box.

**\*H800002 - Entomology Display, Second-Year Project** - (SF186) - Collection to consist of a minimum of 50 kinds (species) of insects representing at least 8 orders. Replace damaged or poorly mounted specimens. At least 25 species must be present from after July 1 of the previous year. Limit 2 boxes.

**\*H800003 - Entomology Display, Third-Year or More Project** - (SF186) - Collection to consist of a minimum of 75 kinds (species) of insects representing at least 10 orders. Replace damaged or poorly mounted specimens. At least 25 species must be present from after July 1 of previous year. Limit of 3 boxes.

**\*H800004 - Special Interest or Advanced Insect Display** - (SF187) - Educational display developed according to personal interests and/or advanced identification capability. This is also an opportunity to highlight favorite insects in a creative arrangement. Insects should conform to pinning and mounting standards as in Classes 1-3 and be protected in an insect box. Each specialty display should include names of the insects, interesting information about them, and why the display was made. Advanced identification collections should have insects grouped with labels that correspond with identification level (e.g. family, genus, species). A specialty collection may consist of insects by taxonomic group (e.g. butterflies, grasshoppers, dragonflies, scarab beetles) or by host, subject, or habitat (e.g. insect pests of corn, aquatic insects, insect mimicry, insects galls, insect from goldenrod, insect pollinators. etc.).

**\*H800005 - Insect Habitats** - (SF186) - Habitats consist of any hand-crafted objects, made of natural or artificial materials, to be placed outdoors, which promote or conserve insects in the environment. Insects may include bee pollinators, butterflies, beneficial insects, etc. A one-page report describing activities must accompany the exhibit. Report should include placement, target insect, why materials were chosen, functional design, and indicators of success. See the following resources for reports:

\*Nebraska Extension NebGuide: Creating a Solitary Bee Hotel (G2256)

\*University of Minnesota: Wild Bees and Building Wild Bee Houses

\*National Wildlife Federation: How to Provide Water in Monarch Gardens

**\*H800006 - Macrophotography** - (SF189) - Subjects should be insects, spiders or other arthropods, or any nests, webs or constructions they make. All exhibit prints should be either 8" x 10" or 8½" x 11" and mounted on rigid, black 11" X 14" poster or mat board. Either orientation is acceptable. No frames or mat board framing is allowed. A caption of a few sentences should explain the subject and be printed on white paper and glued below the print on the poster board.

**\*H800007 - Insect Poster/Display Exhibits** - (SF190) - Exhibits can be posters or three-dimensional displays, and artistic creativity is encouraged. Posters should be no larger than 22" x 28". They should be instructional and can be attractive and have pictures, drawings, charts, or graphs. Posters and displays may show any aspect of insect life, habitat, or related conservation or management. Examples include life history and other facts about an insect; insect anatomy; how to manage insects in a farm, home, lawn, or garden setting; experiences rearing one kind of insect; survey of an important insect; insect behavior (ex. nesting, finding food, mobility, defenses, etc.); habitats (e.g. forests, grasslands, wetlands, rivers, or lakes) and what insects are found there, etc. Three-dimensional displays, such as dioramas, sculptures, models, or decorative boxes should have a page of explanatory information accompanying them and fit within a 22" x 28" area.

**\*H800008 - Reports or Journals** - (SF191) - Reports and journals should be in a 3-ring binder. A report may be

informational, that is, an original article about a favorite insect, a history of insect outbreaks, diseases caused by insects, insects as food, etc. Or it may be a research report about an investigation or experiment done in a scientific manner. It then should have a basic introduction of the insect studied, methods used, observations, and results of the project. Tables, graphs, and images are helpful to include. A journal is an observational study over a period of time with personal impressions. It may cover watching changes in kinds of butterflies over the summer, rearing a specific insect from egg to adult, managing a beehive, observations of insects in a specific habitat, accounts of insect behavior in a forest or flower garden, etc.

## **Class - Special Entomology Project**

**\*H810001 - Special Entomology Project** Educational exhibit based on what was learned from the project. Present information on a poster no larger than 22" x 28" either vertical or horizontal arrangement or in a clear plastic report cover. The 4-H member's name, age, full address, and county must be on the back of the poster or report cover. Reports may include life cycle, distribution of the insect, insect behavior (ex. nesting, finding food, mobility, defenses, etc.); habitats (e.g. forests, grasslands, wetlands, rivers, or lakes). May include a certain species or broad overview of the family or group of insects.

**\*H810002 - Special Entomology project** display the current years' Special Entomology Project pinned species along with a one to two report of what was learned from researching the insect type. Reports may include life cycle, distribution of the insect, insect behavior (ex. nesting, finding food, mobility, defenses, etc.); habitats (e.g. forests, grasslands, wetlands, rivers, or lakes). May include a certain species or broad overview of the family or group of insects.

**Rules** - The insect of the year for 2023 is the grasshopper.

### Resources

Entomology 1 -- Make an insect collection; Learn where to look for insects; Learn how to identify and classify insects **URL:**

[https://4hcurriculum.unl.edu/index.php/main/program\\_project/62](https://4hcurriculum.unl.edu/index.php/main/program_project/62)

Entomology 2 -- Complete an insect collection table; Plan an insect collection trip; Raise meal worms; Explore insect legs and collect insects with an extractor **URL:**

[https://4hcurriculum.unl.edu/index.php/main/program\\_project/63](https://4hcurriculum.unl.edu/index.php/main/program_project/63)

Entomology 3 -- Test ant food preferences; Conduct honey bee learning experiments; Record insect observations; Identify insect mouth types **URL:**

[https://4hcurriculum.unl.edu/index.php/main/program\\_project/64](https://4hcurriculum.unl.edu/index.php/main/program_project/64)

Insectigator -- Learn the difference between an insect and a bug; Identify insect parts and know why each is important; Find and examine bugs and insects in the field; Design your own insect or create a home for an insect **URL:** [https://4hcurriculum.unl.edu/index.php/main/program\\_project/61](https://4hcurriculum.unl.edu/index.php/main/program_project/61)