2024 AGRONOMY

The purpose of these exhibits is to demonstrate to the public the benefits from the study and application of crop, weed, range and soil sciences to solving problems in management, conservation, sustainability and environmental protection.

4-H members may only exhibit in the project in which they are enrolled and one entry per class number.

All exhibits must be labeled. Label each item with the exhibitor name, project division, exhibit class number and years in the project before entering at county fair.

All static exhibits must receive a purple ribbon at the county fair in order to be eligible for State Fair selection.

State Fair Premier 4-H Science Award is available in this area. See General Rules in State Fair Book for more details.

AGRONOMY

*Denotes State Fair Entry

Purple, $3; Blue, $2; Red, $1.50; White, $1

Grain or Plants Exhibits, Classes 1-5

- A completed Crop Production Worksheet (available at https://go.unl.edu/cropproductionprojectworksheet) must accompany grain and plant exhibits or it will automatically be deducted one ribbon placing. The worksheet must include the exhibitors name and address, county, plant hybrid or variety, plant population, whether crop production was irrigated or dryland, and general information including farm cropping history, soil type and weather effects.
- The worksheet also must include an economic analysis of the project, listing individual expenses and income, on a per acre basis. Other topics to discuss are the selection of variety or hybrid, impacts of tillage and conservation practices, inputs (fuel, fertilizer, irrigation, labor, pesticides, etc.), any observations made during the growing season and what you learned from your crops project. The worksheet counts as 50% of the total when judged.
- Worksheet must be the original work of the individual exhibitor or it will be deducted one ribbon placing.
- Attach the worksheet to the entry in a clear plastic cover such that it can be read without removing it from the cover. In addition to the worksheet, grain and plant exhibits will be judged on condition, appearance (i.e. disease and insect damage, grain fill), uniformity (size, shape, color, maturity), and quality of exhibit. Refer to Scoresheet SF264. Grain exhibits must be one gallon per sample. Grain exhibits harvested in the fall (e.g., corn or soybeans) may be from the previous year's project and brought in an appropriate-sized box/container for display. Place in a clear container so it can be viewed and displayed.
- Plant exhibits, with the exception of ears of corn, must be the result of the current year's project. - Corn - 10 ears or 3 stalks (cut at ground level with no roots or soil and bound together)
- Grain Sorghum - 4 stalks (cut at ground level and bound together)
- Soybeans - 6 stalks (cut at ground level and bound together)
- Small grains (oats, barley, wheat, triticale) - sheaf of heads 2 inches in diameter at top tie with stems about 24" long.
- Other crops (alfalfa, millet, etc.) - sheaf of stems 3 inches in diameter at top tied with stems cut at ground level or half size small square bale.

Displays Exhibits, Classes 6-10:

- The purpose of the display is to tell an educational story to those that view the display.
- The display is a visual representation (pictures, charts, graphs) no larger than 28 inches" wide by 28" inches tall on plywood or poster board.
- The display should be neatly titled. Make sure to label display with exhibitor's name, address and county on back side. Explain pictures and graphs clearly and concisely.

- Consider creativity and neatness. Refer to Scoresheet SF259 Each display must have a one-page essay (minimum) explaining why the exhibitor chose the area of display and what they learned from their project. Include any references used.

- The essay should be in a clear plastic cover with the exhibitor's name outside.

- If a display does not have an essay, it will automatically be deducted one ribbon placing.

*G750001 Corn (includes yellow, white, pop, waxy, or any other type)
*G750002 Soybeans
*G750003 Oats
*G750004 Wheat
*G750005 Any other crop (includes grain sorghum, alfalfa, millets, barley, rye, triticale, amaranth, dry beans, sugar beet, mung bean, canola, forage sorghum, safflower, etc.)
*G750006 Crop Production Display — The purpose of this class is to allow original and creative exhibits that contain educational information about crop production aspects, such as crop scouting, alternative crops, bioenergy, etc.
*G750007 Crop Technology Display — Display information about aspects of technology used in crop production, such as genetic engineering, crop breeding, GPS, yield mapping, computers, etc.
*G750008 Crop End Use Display — Display information about the uses for a crop, such as food, feed, fuel, or other products.
*G750009 Water or Soil Display — Display information about water or soils, such as how soils are being used for crop production, range, conservation, wildlife, or wetland use, or ways to protect or conserve water and soil resources.
*G750010 Career Interview Display — The purpose of this class is to allow youth to investigate a career in agronomy. Youth should interview 1 person that works with crops about such topics as, what parts of their job do they enjoy or dislike, why did they choose that career, what was their education, etc. Include a picture of the person interviewed.

Special Agronomy Project - Youth experience a crop that is grown, was grown or has the potential to be grown in Nebraska by growing it, researching traits of that crop and determine viability of that crop in the part of the state they live.
Each year seeds will be mailed to extension offices or ag ed classrooms across the state, as ordered by that location. Offices will distribute to youth on a first, come – first serve basis. A different seed will be selected every year. Youth will grow seeds in their garden or pots. Written resources materials will be available for youth, in addition to virtual, live or recorded videos/field trips. Youth will be eligible to enter an exhibit at both the county and/or state fair in the agronomy project area.
*G750011 Special Agronomy Project – Educational Exhibit – Educational exhibit based on what was learned from the project. Present information on a poster 28 inches x 28 inches either vertical or horizontal arrangement or in a clear plastic report cover. The 4-H member's name, age, and county must be on the back of the poster or report cover. Each display must have a one-page essay (minimum) explaining why the exhibitor chose the area of display and what they learned from their project. Include any references used.
*G750012 Special Agronomy Project – Video Presentation – 4-H exhibitor designs a multimedia presentation related to the crop. This could include narration of the growing process, presenting facts about the crop or any other innovative multimedia practices. The presentation should be at least 2 minutes in length and no more than 5 minutes in length, appropriate graphics, sound and either a video clip, animation or voice over and/or original video clip. Any of the following formats will be accepted: mp4, .mov, .ppt, or .avi.
*G750013 Special Agronomy Project (Freshly Harvested Crop) – Plant exhibits must be the result of the current year's project. Depending on the type of crop selected for the current year:

- Corn - 10 ears or 3 stalks (cut at ground level with no roots or soil and bound together)
- Grain Sorghum - 4 stalks (cut at ground level and bound together)
- Soybeans - 6 stalks (cut at ground level and bound together)
- Small grains (oats, barley, wheat, triticale) - sheaf of heads 2 inches in diameter at top tie with stems about 24" long.

- Other crops (alfalfa, millet, etc.) - sheaf of stems 3 inches in diameter at top tied with stems cut at ground level. For 2024, Sugar Beets: Display 2 beets zip-tied or tied together with string, along with supporting information (essay).

Supporting documentation (½ to 1-page in length) should include the following:

- Economic Analysis and/or research that supports feasibility of this crop in Nebraska or how the crop has evolved over time.
- Other topics to discuss are past/current commercial production of this crop. This includes: the selection of variety or hybrid, impacts of tillage and conservation practices, inputs (fuel, fertilizer, irrigation, labor, pesticides, etc.), any observations made during the growing season about this crop and what you learned from your crops project. This ½ to 1-page summary counts as 50% of the total when judged.
- In addition to the summary, grain and plant exhibits will be judged on condition, appearance (i.e. disease and insect damage, grain fill), uniformity (size, shape, color, maturity), and quality of exhibit.

You Be the Teacher exhibits are designed to share with others what the 4-H'er learned in the project. Exhibit may be a three-dimensional display, scrapbook, charts, pictures, photographs, a file of ideas, research study, etc. A display may not exceed a total space of 12 inches deep, 15 inches wide and 10 inches high. Pictures, models, plaster, papier-mâché, etc., may be used in your exhibit. Please attach the entry tag to the upper right hand corner of the entry.

Purple, $2; Blue, $1.50; Red, $1; White, $0.50

G750014 You Be The Teacher — Share with others what you learned in Crops and Range. Exhibit must be of an educational nature. See information in introduction to Crops and Range.

G750015 Poster pertaining to one or more of the activities listed in the soybean, corn or sorghum manual.

WEED SCIENCE

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At least 15 of the specimens must represent this year's work. For assistance identifying plants, participants can use Nebraska Department of Agriculture's Weeds of Nebraska and the Great Plains (1994) or Weeds of the Great Plains (2003).

Exhibits will be judged based on completeness of plant mount, accuracy of identification, label, neatness, and conformity to exhibit requirements.

Books – Classes 1-2:

- Plants must be mounted on sheets that are no larger than 14 inches wide by 14 inches high. Proper plant mount should include root as well as stem and leaf tissue. Plants should be glued rather than taped and the mounts should be protected with a clear clover.

- Exhibits will be judged based on completeness of plant mount, accuracy of identification, label, neatness, and conformity to exhibit requirements. Refer to Scoresheet SF261.
- Each completed mount must have the following information (see example below) in the lower right corner of the mounting sheet: - Scientific name (in italic or underlined), with authority, - Common name, - County of collection, - Collection date, - Collector's name, - Personal collection number, indicating the order that plants were collected in your personal collection, - Other information depending on class selected, i.e., noxious, life form. This information should be typed or printed neatly.

Displays – Class 3:

The purpose of the display is to tell an educational story to those that view the display. The display is a visual representation (using pictures, charts, graphs) no larger than 28-inch by 28-inch on plywood or poster board. The display should be neatly titled. Make sure to label display with exhibitor's name, address, and county on back side. Explain pictures and graphs clearly and concisely. Each display must have a one-page essay explaining why the exhibitor chose the area of display and what they learned from their project. Include any references used. The essay should be in a clear plastic cover with the exhibitor's name outside.

*G751001 Weed identification book — A collection of a minimum of 15 plant mounts including at least two weeds classified as noxious — Canada thistle, musk thistle, plumeless thistle, salt cedar, leafy spurge, purple loosestrife, diffuse knapweed, spotted knapweed, Japanese knotweed, bohemian knotweed, giant knotweed, sericea lespedeza or phragmites), and at least three weeds that are a problem primarily in lawns.

*G751002 Life Span — A collection of seven perennials, one biennial, and seven annual weeds.

*G751003 Weeds display — The purpose of this class is to allow original and creative exhibits that contain educational information about weeds, such as interesting information about a weed species, the effects of weed control, herbicide resistant weeds, what makes a weed a weed, or uses for weeds.

G751004 Weed identification board — This exhibit should display a collection of 20 weed species important to a particular county. The display board should be hinged in the middle with the total open width of 60 inches and height of 36 inches. This display should be adequately labeled.