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## PLANT SCIENCE: HORTICULTURE

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The purpose of Horticulture is to encourage participants to start and maintain vegetable gardens. In addition, 4-H'ers can participate in planting, growing, and caring for flowers and houseplants. There is also a special gardening project in this category that 4-H'ers can participate in. For more resources and materials in this category refer to the resource section at the end of the Horticulture section.

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### Resources:

Annual Flowers - Plant, grow, and care for annual flowers.

URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/105](https://4hcurriculum.unl.edu/index.php/main/program_project/105)

Everyone A Gardener - Choose a garden site; Plan a garden; Grow vegetables; Select and purchase garden supplies; Grow transplants.

URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/107](https://4hcurriculum.unl.edu/index.php/main/program_project/107)

Gardening A - Plan and plant a garden; Find out how seeds germinate; Learn what different plant parts do; Harvest and use your vegetables.

URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/108](https://4hcurriculum.unl.edu/index.php/main/program_project/108)

Gardening B - Transplant plants into your garden; Grow plants from plant parts; Feed your garden; Earn money by growing vegetables.

URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/109](https://4hcurriculum.unl.edu/index.php/main/program_project/109)

Gardening C - Learn about succession planting; Grow an herb garden; Find out about photosynthesis; Identify pest damage.

URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/110](https://4hcurriculum.unl.edu/index.php/main/program_project/110)

Gardening D - Use intercrop and double crop planting methods; Plant a computer-planned garden; Identify plant diseases; Learn about plant scientists.

URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/111](https://4hcurriculum.unl.edu/index.php/main/program_project/111)

Houseplants - Grow foliage and bulb plants indoors; Learn what houseplants need to stay healthy. URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/106](https://4hcurriculum.unl.edu/index.php/main/program_project/106)

Special Gardening Project –

URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/176](https://4hcurriculum.unl.edu/index.php/main/program_project/176)

The World of Flowers - Learn about growing healthy plants; Grow flowers from seeds; Learn about caring for flowers.

URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/104](https://4hcurriculum.unl.edu/index.php/main/program_project/104)

## FLORICULTURE

### Rules – Floriculture Classes 1-46:

1. Youth must be enrolled in the *World of Flowers* and/or *Annual Flowers* projects to exhibit a maximum of 6 entries per person in classes 1-46 (cut flowers) and 50-53 (educational

exhibits). Exhibits are limited to ONE EXHIBIT PER EXHIBIT CLASS NUMBER. Entries must be the work of the 4-H member.

2. **The cultivar or variety name must be included on all entry cards.** If potted container with several cultivar or varieties, identify each individually within the pot. Failure to identify the cultivar or variety will drop the entry one ribbon placing. Proper identification is the responsibility of the exhibitor not the Extension staff or office personnel.  
*Example: Petunia, Bee's Knees.*
3. Exhibits entered under an incorrect class number or containing an incorrect number of stems will be dropped one ribbon placing. In classes 23, 45 & 46, do not duplicate entries from the already listed classes or entry will be dropped one ribbon placing. For example 4-H'ers with two cultivars or varieties of marigolds can only enter the marigold class and cannot enter the other cultivar or variety in any other class. A perennial is defined as a plant of which the crown overwinters. An annual is a plant that grows from seed each season, whether self-seeded or planted by the gardener. A biennial is a plant that germinates, grows and overwinters as a crown, blooms the following year and dies. Foliage will be considered when exhibit is judged.
4. Cut Flowers: All 3 or 5 stems of cut flowers should be the same cultivar and color, do not mix cultivars and colors. Containers will not be judged; however, they should be clear glass containers that will not tip over and is of adequate size to display blooms. (Containers going to State Fair are not to be plastic and are not returned.)
5. Follow the guidelines in 4-H Preparing Cut Flowers for Exhibits 4H227 (revised 2016) <https://extension.unl.edu/statewide/dixon/4H227%20Preparing%20Cut%20Flowers.pdf> when preparing entries for the fair. Also available at the extension office upon request.

**ANNUALS AND BIENNIALS** - 5 stems of a single variety (cultivar) unless otherwise noted in parenthesis. Follow the guidelines in 4-H "Preparing Cut Flowers for Exhibits" 7/20/12 when preparing entries for the fair, available at the extension office.

- G 770 001 Aster
- G 770 002 Bachelor Buttons
- G 770 003 Bells of Ireland
- G 770 004 Browallia
- G 770 005 Calendula
- G 770 006 Celosia (crested or plume) (3 stems)
- G 770 007 Cosmos
- G 770 008 Dahlia
- G 770 009 Dianthus
- G 770 010 Foxglove
- G 770 011 Gladiolus (3 stems)
- G 770 012 Gomphrena
- G 770 013 Hollyhock (3 stems)
- G 770 014 Marigold
- G 770 015 Pansy
- G 770 016 Petunia

**G 770 017 Salvia**

**G 770 018 Snapdragon**

**G 770 019 Statice**

**G 770 020 Sunflower** (under 3" diameter-5 stems, 3" or more in diameter-3 stems)

**G 770 021 Vinca**

**G 770 022 Zinnia**

**G 770 023 Any Other Annual or Biennial Not Listed** (under 3" diameter - 5 stems, 3" or more in diameter - 3 stems) (Do not duplicate entries in classes 1-22)

**PERENNIALS** - 5 stems of a single variety (cultivar) unless otherwise noted in parenthesis. Follow the guidelines in 4-H "Preparing Cut Flowers for Exhibits" 7/20/12 when preparing entries for the fair, available at the extension office.

**G 770 030 Achillea / Yarrow**

**G 770 031 Chrysanthemum**

**G 770 032 Coneflower**

**G 770 033 Coreopsis**

**G 770 034 Daisy**

**G 770 035 Gaillardia**

**G 770 036 Helianthus** (3 stems)

**G 770 037 Hydrangea** (3 stems)

**G 770 038 Liatris** (3 stems)

**G 770 039 Lilies** (3 stems) (Not Daylilies)

**G 770 040 Platycodon**

**G 770 041 Rose** (3 stems)

**G 770 042 Rudbeckia / Black-Eyed Susan**

**G 770 043 Sedum**

**G 770 044 Statice**

**G 770 045 Any Other Perennial Not Listed** (under 3" diameter - 5 stems, 3" or more in diameter - 3 stems) (Do not duplicate entries in classes 30-44)

**G 770 046 4-H FLOWER GARDEN COLLECTION** of 5 different cut flowers. Flowers are to be cut not potted. Each flower in the collection should be exhibited with the number specified for classes 1-45. Display in a box or other holder not more than 18" in any dimension. Do not duplicate entries in classes 1-45 with any in the group collection.

PREMIUMS: PURPLE \$1.60; BLUE \$1.25; RED \$1.00; WHITE \$.75

## EDUCATIONAL EXHIBITS / NOTEBOOKS & POSTERS - FLOWERS

**G 770 050 FLOWER NOTEBOOK** - Exhibit a notebook containing pictures of flowers grown in Nebraska and proper credit must be given by listing the sources of pictures and information used. There must be at least 10 different species of annuals and/or biennials and 10 different species of perennials hardy to Nebraska. Bulbs may be included in a separate section. 4-H'ers may show more than one cultivar of the same species, but they will only count as one species. The notebook must be the result of the current year's work. You may show more than one cultivar of the same species, but they will only count as one species. Pictures from garden catalogs, hand drawn pictures, or photographs may be used. Each species/cultivar must be labeled with the correct common name and scientific name; the height and spread of the plant and the growing conditions (for example: needs full sun and dry sandy soil) the species prefers. In addition to this information, bulbs should also be labeled as spring or summer flowering.

Give proper credit by listing the sources of pictures and information used. The 4-H member's name, age, county, and years in the project(s) must be on the back of the notebook.

**G 770 051 FLOWER GARDEN PROMOTION POSTER** - Individual poster promoting vegetable and/or flower gardening, size 14" x 22" either vertical or horizontal arrangement. Poster may be in any medium: watercolor, ink, crayon, etc. as long as they are not 3-dimensional. Posters using copyrighted material (such as the cartoon "Garfield") will not be accepted. Entry card must be paper stapled to the upper right-hand corner. The 4-H member's name, age, county, years in the project(s) must be on the back of the poster.

**G 770 052 EDUCATIONAL FLOWER GARDEN POSTER** - Prepare a poster 14" x 22" x 2" (3-dimensional if needed) either vertical or horizontal arrangement illustrating a skill or project you have done or learned about in a 4-H flower or houseplant project. One might show a special technique you used or equipment incorporated in your garden. Refer to 4-H horticulture project manuals, but use your own creativity. Entry card must be paper stapled to the upper right-hand corner. The 4-H member's name, age, county, and years in the flower project(s) must be on the back of the poster.

**G 770 053 FLOWER GARDENING HISTORY INTERVIEW** - Neatly handwritten or typed account of a gardening history interview whose flower garden has inspired you. Maximum of 4 pages of text and 2 pages of pictures (include 1 picture of the person you interviewed) of their flower garden if the individual is still gardening. Protect with a clear report cover or small 3-ring notebook. The 4-H member's name, age, and county must be on the back of the report cover or notebook.

## HOUSEPLANTS

### Rules:

1. Youth must be enrolled in the *Growing Great Houseplants* project to exhibit in classes 60-65. Youth may enter a maximum of 3 entries in classes 60-66.
2. Container Grown Houseplants: The choice of container and soil quality will be considered in judging. Each houseplant must be identified by listing the names on the entry tag or on a card attached to the container. Houseplants should be grown in the display container for a minimum of six weeks. Plants grown as houseplants must be used.
3. These two NebGuides include a listing of common houseplants:
  - NebGuide G2205 “Guide to Growing Houseplants”  
<http://extensionpublications.unl.edu/assets/html/g2205/build/g2205.htm>
  - NebGuide G837 “Guide to Selecting Houseplants”  
<http://extensionpublications.unl.edu/assets/html/g837/build/g837.htm>  
includes a listing of common houseplants.
4. Containers of annual flowers or annual plants (i.e. petunias, geraniums, impatiens) will be disqualified and will not be judged.
5. Entries in Classes 60-66 must have been designed and planted by the 4-H member.
6. Container grown houseplants shall be in pots no greater than 12" in diameter (inside opening measurement). Dish gardens, fairy or miniature gardens, desert gardens and terrariums may be up to 12" in diameter (inside opening measurement). Any container grown plant in Classes 60-66 that is greater than 12" in diameter (inside opening measurement) will be dropped one ribbon placing.
7. Classes 60-65 exhibitors must have and provide a saucer to catch drainage water. The 4-H members name, age, full address, county, and years in the project(s) must be on the bottom or back of the container and saucer.

**G 770 060 FLOWERING POTTED HOUSEPLANTS** that are blooming for exhibition. Container may have one or more houseplants in container. Label with the name for each plant. Non-blooming plants will be disqualified.

**G 770 061 FOLIAGE POTTED HOUSEPLANT** One variety of tropical or cacti or succulent plant. of all the same variety. Label with name of plant.

**G 770 062 HANGING BASKET** of flowering and/or foliage plants. Container may have one or more houseplants in container. Label with name for each plant.

**G 770 063 DISH GARDEN** – An open container featuring a variety of Houseplants: excluding cacti and succulents. Label with name for each plant.

**G 770 064 FAIRY OR MINIATURE GARDEN** – A Miniature “scene” contained in an open container and featuring miniature or small, slow-growing houseplants. The garden needs to have an imaginative theme and miniature accessories, i.e. bench, fence made from tiny twigs, small shell for a bath tub, etc. Label with name for each plant.

**G 770 065 DESERT GARDEN** - an open container featuring a variety of cacti and/or succulents grown as houseplants. Label with name for each plant.

**G 770 066 TERRARIUM** – a transparent container, partially or completely enclosed; sealed or unsealed. Label with name for each plant.

PREMIUMS: PURPLE \$3.25; BLUE \$2.50; RED \$2.00; WHITE \$1.25

### **SPECIAL GARDEN PROJECT**

The 2023 Special Garden Project is the **MRS. BURNS' LEMON BASIL**. Seeds are supplied by the 4-H Council. Youth must be enrolled in the SPECIAL GARDEN PROJECT to exhibit. Special Garden Project (G 775 001) and Special Gardening Project (G 775 002), are eligible for State Fair. Those marked with an asterisks (\*) are not eligible.

**G 775 001 SPECIAL GARDEN PROJECT** – Educational exhibit based on what was learned from the project. Present information on a poster 14" X 22" 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.

**G 775 002 SPECIAL GARDENING PROJECT - FRESH CUT FLOWERS, HERBS, OR HARVESTED VEGETABLES** – The current years' Special Gardening Project fresh cut flowers, herbs, or harvested vegetables should be entered in this class. Refer to classes 1-45 for quantity to exhibit if Special Gardening Project is a fresh cut flower. Refer to classes 201-252 for quantity to exhibit if Special Gardening Project is a vegetable. Flowers and herbs must be cut not potted.

**\*G 775 901 PICTURE/PHOTOGRAPH** This project is up to you, as long as it includes the **MRS. BURNS' LEMON BASIL**. Please include a 5x7" photo mounted on 8 ½ x 11" poster board with a caption.

**\*G 775 902 STORY** Tell a story about your first experience with the **MRS. BURNS' LEMON BASIL**: growing, harvesting, or the insects it attracts. Be sure to include a photograph(s)!. Exhibit in a clear plastic report cover.

**\*G 775 903 ESSAY** Write an essay about what you've learned about the **MRS. BURNS' LEMON BASIL** and growing them. Be sure to include things you would change next time and a photograph(s). Exhibit in a clear plastic report cover.

**\*G 775 905 POEM** Write a poem about some aspect of the **MRS. BURNS' LEMON BASIL** growing the choice is yours! Exhibit in a clear plastic report cover.

**\*G 775 906 CHOICE** Your choice of a project, but be sure it includes something about the **MRS. BURNS' LEMON BASIL**.

PREMIUMS: PURPLE \$1.60; BLUE \$1.25; RED \$1.00; WHITE \$.75



**VEGETABLES, HERBS & FRUITS**

**Rules:**

- Youth must be enrolled in the *Everyone A Gardener Project* and/or *Gardening Unit 1-4* to exhibit in this area. An exhibitor may enter a maximum of FOUR (4) entries per person in classes 201-294. Exhibits are limited to ONE EXHIBIT PER EXHIBIT CLASS NUMBER.
- Entries must be the work of the 4-H member.
- **The cultivar or variety name must be included on all entry cards.** Failure to identify the cultivar or variety will drop the entry one ribbon placing. Proper identification is the responsibility of the exhibitor, not the Extension staff or Office personnel. Exhibits entered under an incorrect class number or containing an incorrect number of vegetables will be dropped one ribbon placing. In classes 252, 255, 268, 269, 285 and 286 do not duplicate entries from any of the other classes or entry will be dropped one ribbon placing. For example: 4-H'ers with two cultivars or varieties of red tomatoes can only enter the red tomatoes class and cannot enter the other cultivar or variety in any other vegetable class.  
*Example: Green Summer Squash (Zucchini) Black Magic.*
- Follow the guidelines in 4H226 "Selecting and Preparing Vegetables, Herbs and Fruits for Exhibits" when preparing entries for the fair. Also available at the extension office upon request. [https://extension.unl.edu/statewide/dixon/SelectingPreparingVegHerbFruit\\_6-24-13.pdf](https://extension.unl.edu/statewide/dixon/SelectingPreparingVegHerbFruit_6-24-13.pdf)
- Vegetables (Classes 1-56) Class, Vegetable, Number's to Exhibit
- Herbs (Classes 60-69) Herbs will be judged using the same general criteria used for vegetables. Those grown mainly for their seed, such as dill and caraway, should be exhibited on a plate. Those grown for their leaves such as basil, parsley, etc. should be exhibited in a clear glass container of water (if at State Fair, containers are not returned). Containers may not be returned from State Fair. Potted herb plants will be disqualified and will not be judged.
- Fruits (Classes 80-86) Fruits will be judged using the same general criteria used for vegetables. Fruit will be judged for the stage of maturity normal for that season and growing location. Emphasis will be placed on how well fruit approaches market quality.

	# To Exhibit
<b>G 773 201 Lima Beans</b> .....	12
<b>G 773 202 Snap Beans</b> .....	12
<b>G 773 203 Wax Beans</b> .....	12
<b>G 773 204 Beets</b> .....	5
<b>G 773 205 Broccoli</b> .....	2
<b>G 773 206 Brussels Sprouts</b> .....	12
<b>G 773 207 Green Cabbage</b> .....	2
<b>G 773 208 Red Cabbage</b> .....	2
<b>G 773 209 Carrots</b> .....	5
<b>G 773 210 Cauliflower</b> .....	2
<b>G 773 211 Slicing Cucumbers</b> .....	2
<b>G 773 212 Pickling Cucumbers</b> .....	5
<b>G 773 213 Eggplant</b> .....	2
<b>G 773 214 Kohlrabi</b> .....	5

DIXON COUNTY FAIRBOOK 2023  
 DEPARTMENT G1 - PLANT SCIENCE  
 Horticulture / Landscape / Agronomy



G 773 215	Muskmelon/Cantaloupe .....	2
G 773 216	Okra .....	5
G 773 217	Yellow Onions .....	5
G 773 218	Red Onions .....	5
G 773 219	White Onions .....	5
G 773 220	Parsnips .....	5
G 773 221	Bell Peppers .....	5
G 773 222	Sweet (Non-Bell Peppers) .....	5
G 773 223	Jalapeño Peppers .....	5
G 773 224	Hot (No-Jalapeno) Peppers .....	5
G 773 225	White Potatoes .....	5
G 773 226	Red Potatoes .....	5
G 773 227	Russet Potatoes .....	5
G 773 228	Other Potatoes .....	5
G 773 229	Pumpkin .....	2
G 773 230	Miniature Pumpkins (Jack Be Little type)	5
G 773 231	Radish .....	5
G 773 232	Rhubarb .....	5
G 773 233	Rutabaga .....	2
G 773 234	Green Summer Squash (Zucchini) .....	2
G 773 235	Yellow Summer Squash .....	2
G 773 236	White Summer Squash .....	2
G 773 237	Acorn Squash .....	2
G 773 238	Butternut Squash .....	2
G 773 239	Buttercup Squash .....	2
G 773 240	Other Winter Squash .....	2
G 773 241	Sweet Corn (In Husks) .....	5
G 773 242	Swiss Chard .....	5
G 773 243	Red Tomatoes (2" Or More In Diameter)	5
G 773 244	Roma Or Sauce-Type Tomatoes .....	5
G 773 245	Salad Tomatoes (Under 2" Diameter) ...	12
G 773 246	Yellow Tomatoes (2" Or More In Diameter)	5
G 773 247	Turnips .....	5
G 773 248	Watermelon .....	2
G 773 249	Dry Edible Beans .....	1 Pint
G 773 250	Gourds, Mixed Types .....	5
G 773 251	Gourds, Single Variety .....	5
G 773 252	Any Other Vegetable 2, 5 Or 12 (do not duplicate entries in classes 201-251) that doesn't fit in any other class	

PREMIUMS: PURPLE \$1.60; BLUE \$1.25; RED \$1.00; WHITE \$.75





**G 773 255 4-H VEGETABLE GARDEN COLLECTION OF FIVE KINDS OF VEGETABLES.** Display Garden Collection in a box not more than 24" in any dimension. Boxes may not be returned from State Fair. Showmanship will be considered in judging, but plastic grass, cotton, figurines, etc. should not be used in exhibit boxes. Each vegetable in the collection should be exhibited with the number specified for individual class (201-252). Do not duplicate entries in classes 201-251 with any in the group collection.

**G 773 256 4-H CULTIVAR VEGETABLE COLLECTION.** Vegetables entered in the collection are 5 cultivars from a single exhibit; Fresh for example 5 cultivars of all types of peppers, squash, onions, tomatoes, etc. Display in a box not more than 24" in any dimension. Showmanship will be considered in judging; but plastic grass, cotton figurines, etc. should not be used in exhibit boxes. Each vegetable in the collection should be exhibited with the number specified for individual class (201-252).

PREMIUMS: PURPLE \$3.25; BLUE \$2.50; RED \$2.00; WHITE \$1.25

**HERBS**

Herbs will be judged using the same general criteria used for vegetables. Those grown mainly for their seed, such as dill and caraway, should be exhibited on a plate. Those grown for their leaves such as basil, parsley, etc. should be exhibited in a glass container of water. Potted herb plants will be disqualified and will not be judged.

	# To Exhibit
<b>G 773 260 BASIL .....</b>	5
<b>G 773 261 DILL (DRY) .....</b>	5
<b>G 773 262 GARLIC (BULBS) .....</b>	5
<b>G 773 263 MINT .....</b>	5
<b>G 773 264 OREGANO .....</b>	5
<b>G 773 265 PARSLEY .....</b>	5
<b>G 773 266 SAGE .....</b>	5
<b>G 773 267 THYME .....</b>	5
<b>G 773 268 ANY OTHER HERB .....</b>	5
<b>G 773 269 4-H HERB GARDEN DISPLAY</b> 5 different cut herbs. Herbs are to be cut not potted. Displayed in a box or other holder not more than 18" in any dimension. Boxes may not be returned from State Fair. Each herb in the collection should be exhibited with the number specified for classes 260-268. Do not duplicate entries in classes 260	

PREMIUMS: PURPLE \$1.60; BLUE \$1.25; RED \$1.00; WHITE \$.75

### FRUITS

Fruits will be judged using the same general criteria used for vegetables. Fruit will be judged for the stage of maturity normal for that season and growing location. Emphasis will be placed on how well fruit approaches market quality.

	# To Exhibit
<b>G 773 280 STRAWBERRIES (EVERBEARERS)</b>	1 Pint
<b>G 773 281 GRAPES</b>	2 Bunches
<b>G 773 282 APPLES</b>	5
<b>G 773 283 PEARS</b>	5
<b>G 773 284 WILD PLUMS</b>	1 Pint
<b>G 773 285 OTHER SMALL FRUIT OR BERRIES</b>	1 Pint
	(do not duplicate entries in classes 280-284)
<b>G 773 286 OTHER FRUITS OR NUTS</b>	5
	(do not duplicate entries in classes 280-284)

PREMIUMS: PURPLE \$1.60; BLUE \$1.25; RED \$1.00; WHITE \$.75

### EDUCATIONAL EXHIBITS – VEGETABLE / HERB

**G 773 290 GARDEN PROMOTION** Poster-Individual poster promoting vegetable or herb gardening, size 14" x 22" either vertical or horizontal arrangement. Poster may be in any medium so long as they are not 3-dimensional. Posters using copyrighted material such as the "Peanuts" cartoon will not be accepted. Entry card must be paper stapled to the upper right hand corner. The 4-H member's name, age, and county must be on the back of the poster.

**G 773 291 EDUCATIONAL VEGETABLE OR HERB GARDEN POSTER**-Prepare a poster 14" x 22" x 2" (3-dimensional if needed) either vertical or horizontal arrangement illustrating a skill or project the 4-H'er has done or learned about in a 4-H vegetable gardening project. You might show a special technique you use or equipment you have incorporated in your garden (e.g., drip irrigation system, composting, or special techniques learned). Refer to 4-H horticulture project manuals, but use your own creativity. Entry card must be paper stapled to the upper right hand corner. The 4-H member's name, age, and county must be on the back of the poster.

**G 773 292 VEGETABLE AND/OR HERB GARDENING HISTORY INTERVIEW**-Neatly handwritten or typed account of a gardening history interview whose vegetable or herb garden has inspired you. Maximum of 4 pages of text and 2 pages of pictures (include 1 picture of the person you interviewed) of their garden if the individual is still gardening. Protect with a clear report cover or 3-ring notebook. The 4-H member's name, age, and county must be on the back of the report cover or notebook.

**G 773 293 VEGETABLE SEED DISPLAY** – Each display must include seeds representing the following families: Cucurbit, Brassica (cabbage), Solanaceous (nightshade), and Legume (pea) families plus representatives from 5 other families. Group the seeds by family and type. Glue seeds or otherwise fasten clear containers of seeds to a board or poster matt board no larger than 22" x 24". Label each group and each individual vegetable type with the common and scientific names. Use only one variety or cultivar of each vegetable, except for beans where several examples of beans may be shown. Attach a card on the back of the display explaining why it is important to know which vegetables are related and how you use this knowledge in your garden. The 4-H member name, age, county, and years in the garden project. Information on vegetable family members can be obtained from your extension office.

**G 773 294 WORLD OF VEGETABLES NOTEBOOK** – Choose a favorite foreign cuisine and learn what vegetables and/or herbs are common to it (e.g. Mexican, African, Chinese, Italian, etc.). Include a handwritten report telling about a minimum of 5 vegetables and/or herbs from each country chosen. Include the scientific and common names; pictures of the plants from your garden or seed catalogs; tell how they are grown; and how the foods are used. Also list a source for buying the seed or plants. Favorite recipes using some or all of the vegetables described may be included. Give proper credit by listing the source of pictures and information used. Protect in a clear report cover or small 3-ring notebook. The 4-H member's name, age, county, and years in the garden project must be on the back of the report cover or notebook.

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### LANDSCAPE: GROW A BEAUTIFUL SPACE

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\*County Only – No State Fair Entry

The *Grow a Beautiful Space* series is designed to teach youth how to recognize and create beautiful and functional landscapes. In addition to landscape design, youth will discover career opportunities related to the discovery, use, and management of plants. Each unit includes an interactive youth manual and a leader's guide. *Grow a Beautiful Space Unit I* and *Unit II* also include a separate portfolio for youth to store notes, photographs, and sketches. In *Grow a Beautiful Space Unit III*, youth will create their own portfolio to store their landscape drawings.

**\*G 777 401 GROW A BEAUTIFUL SPACE UNIT 1 PORTFOLIO NOTEBOOK** - Create and complete 'Landscape Professionals & Design Principles' Unit 1 Portfolio, 4H6110P. Present portfolio information in a three ring binder. Give proper credit by listing the sources of photographs/images and information used. The 4H member's name, age, full address, county, and years in the project(s) must be on the back of the notebook.

**\*G 777 402 ESTABLISH LANDSCAPE ANALYSIS POSTER** - Take multiple photographs of a landscape that has been established for 10 or more years. Critique the landscape based on each of the design principles (order, unity, rhythm, balance, scale or proportion, and emphasis). Describe the spatial definition of the landscape and what different areas of the landscape "feel like". Include photos taken to support your critique. Describe what changes need to be made in the landscape to improve its characteristics and sense of space. Display on a poster mat board no larger than 22" x 28". Entry card must be stapled to the upper right

hand corner. The 4H member's name, age, full address, county, and years in the project(s) must be on the back of the poster.

**\*G 777 403 GROW A BEAUTIFUL SPACE UNIT 2 PORTFOLIO NOTEBOOK** - Create and complete 'Landscape Plants & Materials' Unit 2 Portfolio, 4H6120P. Present portfolio information in a three ring binder. Give proper credit by listing the sources of photographs/images and information used. The 4H member's name, age, full address, county, and years in the project(s) must be on the back of the notebook.

**\*G 777 404 LANDSCAPE RENOVATION POSTER** – Take multiple photographs of a landscape that doesn't quite look right because it doesn't reflect sound design principles. Select a landscape in which you can make at least three design recommendations. Identify how the design principles (order, unity, rhythm, balance, scale or proportion, and emphasis) could be better integrated into the landscape, and how plants or materials with specific features (size, form, color, or texture) could improve the space. Reduce the opacity of the images to 50/60 percent and sketch plants, structures, materials, and/or amenities that could improve the overall design over the original images. The poster should include the original image(s) and improved image(s), and include a short explanation of how the landscape design was improved. Display on a poster mat board no larger than 22" x 28". Entry card must be stapled to the upper right hand corner. The 4H member's name, age, full address, county, and years in the project(s) must be on the back of the poster.

**\*G 777 405 ESTIMATING DREAMS POSTER** - Select a dream landscape as if money is not a consideration. Develop a plan drawing of the landscape. Draw landscape to scale. Identify the types of plants, structures, and amenities used in the landscape. Research the cost of the plants and amenities and the installation. Include the general cost of grading (if needed) and labor that could be associated with installation. Create a list, noting the plants that are included in the space. The quantities of plants and the structures, materials, or amenities and their cost should be included. Calculate the final total estimate. The poster should include the scale drawing of the landscape, identification of plants, structures and amenities, and cost and labor. Display on a poster mat board no larger than 22" x 28". Entry card must be stapled to the upper right hand corner. The 4H member's name, age, full address, county, and years in the project(s) must be on the back of the poster.

**\*G 777 406 SITE INVENTORY & ANALYSIS POSTER** – Make an unscaled drawing of the landscape you inventoried and analyzed. Develop two drawings: a site inventory and a site analysis. The site inventory and site analysis should be communicated through a combination of written notes, graphics symbols and photographs. Display on a poster mat board no larger than 22" x 28". Entry card must be stapled to the upper right hand corner. The 4H member's name, age, full address, county, and years in the project(s) must be on the back of the poster.

**\*G 777 407 COMMUNITY LANDSCAPE POSTER** – Identify a local community space (park, nursing home, school, county fairgrounds, etc.) that needs some landscape improvements. Work through the design process and develop a detailed plan of your improvements to the space. The plan should include design principles, functional and aesthetic factors, list of plants and materials and their costs, budget for materials, labor you have available for the

project, and a timeline. Take photographs of the area and draw over the photos to illustrate your final ideas. Include photographs of the finished landscape if project ideas were carried out. Display on a poster mat board no larger than 22" x 28".

Entry card must be stapled to the upper right hand corner. The 4H member's name, age, full address, county, and years in the project(s) must be on the back of the poster.

**\*G 777 408 RENOVATE THE OUTDOORS PORTFOLIO** – Select a space that you would like to redesign. The space can be at your home, a family member's or friend's house, or somewhere in your community. Develop a scaled base map of the site and locate the existing plants and structures in the landscape. Take photographs of the landscape. Evaluate the physical properties of the site and conduct an interview with the people who live there or use the space. Think about how you would change the space and develop a plan that would implement design elements into the space. Create different drawings that will move you through the design process. You will draw concept diagrams, form compositions, preliminary drawings, and the final design. Once the final design drawing is complete, use overlays on the original photographs to show how the landscape will look compared to how it looked in the photo you originally took of the landscape. Place photographs, interview notes, concept and program statements and drawings in a portfolio. The 4H member's name, age, full address, county, and years in the project(s) must be on the back of the portfolio.

PREMIUMS: PURPLE \$3.25; BLUE \$2.50; RED \$2.00; WHITE \$1.25

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## AGRONOMY

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Individuals in the Crop Production, Field Crops project may exhibit grain or plants to prepare an educational display representing their project. 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. For guidelines on specific projects, refer to appropriate project manuals.

### Resources:

Field Crops 1 - Discover the world of farming; Learn how plants grow; Learn the value and uses of field crops.

URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/101](https://4hcurriculum.unl.edu/index.php/main/program_project/101)

Field Crops 2 - Take a soil sample; Learn about products made from field crops; Decide what crops need to grow and at what time.

URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/102](https://4hcurriculum.unl.edu/index.php/main/program_project/102)

Field Crops 3 - Learn about integrated crop management; Discover hybrid selection; Find out more about harvesting and marketing crops.

URL: [https://4hcurriculum.unl.edu/index.php/main/program\\_project/103](https://4hcurriculum.unl.edu/index.php/main/program_project/103)

## FIELD CROPS

### Rules

#### 1. Grain or Plant Exhibits - Classes 1-5:

- A completed Crop Production Worksheet (available at <https://cropwatch.unl.edu/Youth/Documents/Crop%20Production%20Project%20Worksheet%20Final.pdf>) 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. Display containers will be furnished.
- 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.

#### 2. Displays - 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" wide by 28" 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.

**3. 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 aged 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.

**G 750 001 CORN** (includes yellow, white, pop, waxy, or any other type)

**G 750 002 SOYBEANS**

**G 750 003 OATS**

**G 750 004 WHEAT**

**G 750 005 ANY OTHER CROP** (includes grain sorghum, alfalfa, millets, barley, rye, triticale, amaranth, dry beans, sugar beet, mung bean, canola, forage sorghum, safflower, etc.)

**G 750 006 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, pest management, etc.

**G 750 007 CROP TECHNOLOGY DISPLAY** Display information about aspects of technology used in crop production, such as genetic engineering, crop breeding, GPS, yield mapping, computers, etc.

**G 750 008 CROP END USE DISPLAY** Display information about the final product or end uses for a crop, such as food, feed, fuel, or other products (i.e. corn can be processed into livestock feed, ethanol, plastics, etc. or soybeans can be processed into bio-diesel, pet bedding, crayons, oil, etc.).

**G 750 009 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.

**G 750 010 CAREER INTERVIEW DISPLAY** The purpose of this class is to allow youth to investigate a career in agronomy. Youth should interview one 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.

PREMIUMS: PURPLE \$2.50; BLUE \$2.00; RED \$1.60; WHITE \$1.25

### **SPECIAL AGRONOMY PROJECT**

The crop of the year for 2023 is **TEPARY BEANS**. Broomcorn is a type of sorghum that started as a garden crop, but soon evolved into being grown for making brooms for the home. The plant is a coarse grass that grows 6-15 ft tall. The top of the plant produces long fibers called the brush. Towards the tip of the brush is where the seeds appear. The seeds when immature are pea-green in color and when ripe are tan, reddish tan, or brown. Broomcorn can be used for ornamental uses in floral arrangements or harvested for broom-use prior to seed maturity.

**G 750 011 SPECIAL AGRONOMY PROJECT** - Educational Exhibit - Educational exhibit based on what was learned from the project. Present information on a poster 14" X 22" 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. 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.

**G 750 012 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 file formats will be accepted: mp4, .mov, .ppt, or .avi.

**G 750 013 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.

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.

PREMIUMS: PURPLE \$2.50; BLUE \$2.00; RED \$1.60; WHITE \$1.25



## WEED SCIENCE

### Rules for Books Class 1-2:

- Any individual in the Conservation, Environment 1, 2 or 3, Range, Reading the Range 1 or Using Nebraska Range 2, or Crop Production, Field Crops projects may exhibit a weed book or weed display. The book cover and at least 15 of the specimens must represent this year's work. For assistance identifying plants, participants can use the Nebraska Department of Agriculture's Weeds of Nebraska and the Great Plains (1994) or Weeds of the Great Plains (2003).
- Plants must be mounted on sheets that are no larger than 14" wide by 14" 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.
- Each completed mount must have the following information (see example below) in the lower right corner of the mounting sheet:
  - 1) Scientific name (in italic or underlined), with authority;
  - 2) Common name;
  - 3) County of collection;
  - 4) Collection date;
  - 5) Collector's name;
  - 6) Personal collection number, indicating the order that plants were collected in your personal collection;
  - 7) Other information depending on class selected, i.e., noxious, life form. This information should be typed or printed neatly.

- |    |   |
|----|---|
| 1. | Scientific name: <i>Abutilon theophrasti</i> Medic. |
| 2. | Common name: Velvetleaf                             |
| 3. | County of collection: Knox County                   |
| 4. | Collection date: July 6, 2018                       |
| 5. | Collector's name: Dan D. Lion                       |
| 6. | Personal collection number: 3                       |
| 7. | Life cycle: Annual                                  |

**G 751 001 WEED IDENTIFICATION BOOK** A collection of a minimum of 15 plant mounts including at least two of the following prohibited noxious weeds (Canada thistle, musk thistle, plumeless thistle, saltcedar, leafy spurge, purple loosestrife, diffuse knapweed, spotted knapweed, Japanese knotweed, bohemian knotweed, giant knotweed, sericea lespedeza or phragmites), and at least five weeds that are a problem primarily in lawns.

**G 751 002 LIFE SPAN BOOK** A collection of 7 perennials, 1 biennial, and 7 annual weeds.

### Rules for 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 (pictures, charts, graphs) no larger than 28" by 28" 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.

**G 751 003 WEED 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.

PREMIUMS: PURPLE \$2.50; BLUE \$2.00; RED \$1.60; WHITE \$1.25