

SECTION 18 – HORTICULTURE (vegetables, flowers, etc.)

Project Records are required for Youth Building entries.

A General Project Record or Cloverbud Project Record, plus an Exhibit Tag, must accompany each exhibit entered in the Youth Building. Copies of the General Project Record, Cloverbud Project Record, and Exhibit Tag can be obtained by contacting Cornell Cooperative Extension or by picking up copies at the Hamden office.

Only one General Project Record or Cloverbud Project Record is required for:

1. A flower entry, and
2. A vegetable garden entry.

You do not need to fill out a Project Record for each individual flower or garden entry. Include all entries on one form for flower entries and garden entries on another form.

All ornamental horticulture exhibits will be judged on Sunday or Monday as they are brought to the Youth Building before they are displayed. Each exhibitor is responsible for presenting his or her exhibit to the judge.

GENERAL GUIDELINES

Age, experience and standards listed in related 4-H publications, as well as content and quality, will be considered in evaluating criteria.

Project resource materials listed are for suggestions only. Use your imagination for other ideas. For more information and ideas, check the websites: <http://www.hort.cornell.edu/4hplants>.

Endangered species are not allowed in any exhibit.

Under Floral Design (classes 2575 thru 2590) purchased or wildflowers may be used.

PLANT COLLECTIONS

Developing a plant collection will help youth to learn to recognize and identify different plant species.

Preserved – Plants must be pressed, dry, mounted and labeled. To press plant material, it is best to use the method described in: Pressed Flower Pictures (1982), find at <http://despace.library.cornell.edu/handle/1813/3267>, or as described by a person who has experience collecting plant material.

A clear protective overlay is helpful for many, but not all exhibits.

Weeds and other specimens mounted green (not pressed or dry) will not be evaluated.

Collections of plants may be on one side of one piece of poster board or like material, 22 by 28 inches or notebook binders with single specimens on pages 8 ½ by 11 inches.

Scrapbooks of accumulating years should have dividers between years. Current year's exhibit should be clearly marked. Current year exhibit will be judged.

List sources used to identify plants and plant materials.

Plants identified by Common and Scientific Name.

Describe where found and describe habitat.

CLASS NUMBERS

- 2350 **Leaf, Twig (and fruit, flowers and seed, if possible) of ten or more ornamental trees**
- 2351 **Leaf, Twig (and fruit, flower and seed, if possible) of ten or more ornamental shrubs**
- 2352 **Leaf, Twig and Illustration of fruit or nut, of ten or more fruit or nut plants**
- 2353 **Ten Weeds common to lawns and flower beds**
- 2354 **Ten Annual Flowers**
- 2355 **Ten Perennial Flowers**
- 2356 **Ten Wildflowers**
- 2357 **Ten Seeds (any single plant type; example: 10 ornamentals, 10 fruits, etc.)**
Clean and dried (not green). Seeds must be harvested by exhibitor.
A picture of plant must accompany seeds.
List growing conditions required.
- 2358 **Miscellaneous Collection**
Entries will be judged according to similar project criteria.

HORTICULTURE SCRAPBOOK (collection of plant pictures)

May be cut from magazines or garden center catalogs, illustrated by your own drawings, photographs or photocopies.

Write in the front or back of the catalog where your images came from if you did not make them yourself (Example: pictures are from W. Atlee Burpee 1998 seed catalog).

This scrapbook makes an excellent study guide for the Horticulture Contest.

Each plant should be represented on its own 8 ½ by 11-inch page.

Catalog will be worth more if the picture (or perhaps more than one picture) shows different stages of growth (fruit and leaf, vegetable and flower, flower and leaf).

The New York Horticulture Study Guide should be used as the template for assembling book.

Fasten pictures with clear tape, paper glue or rubber cement.

Pages must be bound in notebook binder.

Label with common name and brief description. Consult *New York State Horticulture Contest Guidelines* for the plants required in each class.

Beginners must include the 15 plants specified from each group – flowers and indoor plants, ornamentals, fruits and nuts, vegetables.

Intermediates must include the 30 plants from each group.

Advanced participants must include all 45 plants from each group.

New York Horticulture Contest Guidelines are available from your 4-H Cornell Cooperative Extension Educator.

CLASS NUMBERS

2360 **Beginner, 1 to 3 years**

2361 **Intermediate, 3 to 6 years**

2362 **Advanced, 5 or more years**

2363 **Photo Record Book**

Photos must be taken by 4-Her.

A minimum of 20 photos. The collection of 20 plants can be a combination of several types of plants, such as trees, shrubs, weeds, annuals, perennials, fungi, etc.

Identify common and scientific names.

List variety, growing requirements, location of plant, where photo was taken and identification sources.

EXPERIMENTS

The intent of this division is to generate an interest among young people in a science-based approach to horticulture.

GENERAL GUIDELINES

Both how you plan your experiment and the final description for your display should include the following sections:

Background – Describe why you did this experiment and why it is important to you and other people.

The Question (or hypothesis) – What specific question does your experiment try to answer? Example: 'Does watering geraniums with coffee increase their growth?'

Methods – Outline how you did the experiment. Be sure to include:

Treatments – Describe specifically what you are comparing as treatments. Remember that you should have a check treatment (what is usually done) and the 'test' treatment. From the above question check = watering with water, and treatment = watering with coffee.

Measurements – Describe what you are measuring (weight, height, etc.) and why. Include observations of the plants over the course of the experiment.

Results – What did your measurements tell you about the treatment compared to the check? Was there a difference and if so, why do you think so? Use tables, graphs or pictures to share what you learned.

What other things did you notice in your observation?

Conclusions – What did you learn? What is important about your results to other people? What would you suggest to someone else, based on what you learned?

The display should be interesting, attractive and neat, so that people will want to stop and learn about what you did. It should:

Include actual examples of treated and untreated plants, if possible, otherwise use drawings or photographs.

On sheets of paper, describe your study using the above five sections.

Uses big print so that it is easy to read from three feet away.

Glue these sheets, along with any photos or graphs to heavy poster paper (14 by 22 inches minimum) for display.

CLASS NUMBERS

2365 **Propagation**

2366 **Breeding**

2367 **Soil Science**

2368 **Cultural Practices**

2369 **Miscellaneous**

Entries will be judged according to similar project criteria.

GARDEN ENTRIES

This division offers an opportunity to display a garden item and gives participants an occasion to show the products of their gardening efforts.

Exhibits that require it, must be grown by the exhibitors in their individual, family, school or community gardens, unless otherwise noted.

Individual may display five entries in any one class, except where the number of entries is stated differently. Each exhibit must be a distinctly different variety type.

Exhibits and awards will be evaluated based on standards below.

Exhibit must be labeled with correct common name and variety name (Example: snap beans, Blue Lake; or petunia, Red Picotee). Otherwise, awards will be downgraded.

For further information on preparing and exhibiting vegetables go to <http://www.hort.cornell.edu/gbl/pubs/index.html>.

Excellent – clean; only very minor defects in general appearance; best market size and quality; true to varietal characteristics. For exhibits with more than one specimen; not more than ten percent variation in sizes for fruits and vegetables and cut flowers; only slightly detectable variation, uniform in shape, color and degree maturity.

Good – clean; slight defects in general appearance; defective and unusable parts should not exceed five percent; good market size and quality. Exhibits with more than one specimen; not more than 25 percent variation in sizes for fruits and vegetables and cut flowers; only slightly detectable variation in shape, color and degree of maturity.

Worthy – fairly clean; some defects in general appearance; defective and unusable parts should not exceed ten percent; fair market size and quality. Exhibits with more than one specimen – not more than 100 percent variation in sizes for fruits and vegetables and cut flowers; noticeable variation in shape, color or degree of maturity.

No Award – dirty, serious damage apparent; defective and unusable parts exceed ten percent; unsatisfactory market size or quality. Exhibits with more than one specimen – more than 100 percent variation in sizes for fruits and vegetables; extreme differences in shape, color or degree of maturity.

VEGETABLES

Up to 8 different entries may be exhibited in this class.

CLASS NUMBERS

- 2375 **Beans, Lima** – 5 green pods, edible beans
- 2376 **Beans, Snap** – green, 5 pods
- 2377 **Beans, Snap** – yellow, 5 pods
- 2378 **Beans, Snap, Pole or Vining Type** – 5 pods
- 2379 **Beans, Green Shell** – 5 pods, any variety including edible soy, Horticultural, Kentucky Wonder
- 2380 **Beans, Dry Shelled** – ½ cup in container, dry field bean variety including Mung, Adzuki, Fava
- 2381 **Beets** – 3 tops trimmed to 1 inch, no green shoulders
- 2382 **Broccoli** – 1 head or bunch of small heads, 5 inch or more in diameter
- 2383 **Brussels Sprouts** – 1-pint basket
- 2384 **Cabbage** – 1 head, 2 to 4 pounds, with 3 to 4 wrapper leaves, any fresh market variety
- 2385 **Carrots** – 3, tops trimmed to 1 inch, no green shoulders
- 2386 **Cauliflower** – 1 head, leaves cut just about head
- 2387 **Celery** – 1 plant, market quality, roots off
- 2388 **Chard** – 1 plant, roots and damaged leaves off
- 2389 **Chinese Cabbage, head**
- 2390 **Chinese Cabbage, loose leaf** – roots off, 1 plant
- 2391 **Corn, sweet** – 3 ears, husks removed completely, shank trimmed to ½ inch, display in transparent bag
- 2392 **Cucumbers** – 2 slicing types, 5 inches or longer, 2 inches or less in diameter
- 2393 **Cucumbers** – 3 pickling type, 3 to 5 inches
- 2394 **Cucumbers** – 3 pickling type, less than 3 inches
- 2395 **Dill** – bunch of 3 seed heads, tied or in transparent bag
- 2396 **Eggplant** – 1 large oval and oblong types, such as Black Beauty, Black Magic, Black Enorma, Dusky
- 2397 **Eggplant** – 2 small, slender and round types, such as Easter Egg, Ichiban, Long Tom, White Beauty
- 2398 **Endive** – 1 plant, roots off, good market size
- 2399 **Garlic** – 3 bulbs, dried, braided together or tops trimmed to 1 inch, cleaned not peeled
- 2400 **Herbs, any kind** – Plant in pot or tied bunch, minimum of 12 sprigs
- 2401 **Herbs, dried** – show a minimum of 1 tablespoon – exhibiting a large amount is acceptable – herbs must be appropriately prepared for use.
- 2402 **Kale** – 1 plant, roots off
- 2403 **Kohlrabi** – 2 tops and tap root trimmed to 2 inches

- 2404 **Leek** – 3 large, trimmed
- 2405 **Lettuce, leaf** – 1 plant, roots off, good market size
- 2406 **Lettuce, head** – 1 plant, roots off, good market size
- 2407 **Muskmelon and Honey Dew Melon** – 1 good market quality
- 2408 **Mustard** – 1 plant, roots off
- 2409 **Okra** – 4, 1 ½ to 3 inches
- 2410 **Onions, Bulbs** – 3, tops trimmed to ½ inch, well cured and dried, not peeled
- 2411 **Onion, Green Bunching Type** – 4, tops on but trimmed evenly
- 2412 **Parsley** – 3 tops trimmed to 1 inch
- 2413 **Parsnips** – 1 plant, roots off, good market size and quality
- 2414 **Peas** – 5 pods
- 2415 **Peppers** – 2 large types, such as Bell, Cubanelle, Italian Sweet
- 2416 **Peppers** – 3 small types, such as Banana, Hungarian Wax, Cherry, Jalapeno
- 2417 **Potatoes** – 3 tubers, 5 to 10 ounces
- 2418 **Potatoes** – 1-pint basket, salt potato types, ¾ to 1 ¼ inch diameter
- 2419 **Pumpkin** – 1 ripe, any variety
- 2420 **Radishes** – 4, tops trimmed to ½ inch
- 2421 **Rhubarb** – 4 stalks, tops trimmed
- 2422 **Rutabaga** – 1, tops trimmed off
- 2423 **Shallot** – 3, tops trimmed to ¼ inch, dried, not peeled
- 2424 **Spinach, Common** – ½ pound in transparent bag
- 2425 **Spinach, New Zealand** – ½ pound, bunch or tender tips 3 to 6 inches, tied or in transparent bag
- 2426 **Squash, Summer** – 2, young, skin tender, such as zucchini, yellow, scallop
- 2427 **Squash, Winter** – 1, any type, such as Hubbard, Delicious, Banana
- 2428 **Squash, Winter** – 1, any small type, such as Buttercup, Butternut, Spaghetti, Table Queen, Golden Nugget
- 2429 **Squash** – Soft and round stem, such as Big Max, Big Moon, Mammoth
- 2430 **Sweet Potatoes** – 3 roots, any variety
- 2431 **Tomatoes** – 2 ripe, stems off, medium and large fruited varieties including Roma type
- 2432 **Tomatoes, Cherry Ripe** – ½ pint basket, stems off, also Presto and small fruited types
- 2433 **Turnips** – 2, tops trimmed to 1 inch
- 2434 **Watermelon** – 1 mature, market size
- 2435 **A Collection of 3 Related Types** – such as 3 varieties of pepper, or 3 vegetables that appear in ethnic cuisine

- 2436 **Miniature Vegetables** – 6 of one type, harvested at small or baby stage
- 2437 **Ornamental Vegetables** – 3 of one type, such as miniature pumpkins or gourds or decorative corn; ornamental kale (1 specimen)
- 2438 **Heirloom Vegetables** – Any variety from the Heirloom Garden bulletin, exhibited to same manner as other vegetable classes
- 2439 **Miscellaneous** – Any other vegetable not listed, display same number of specimens as similar crop listed.

VEGETABLE ART

CLASS NUMBER

- 2440 **Vegetable Art:**
- Vegetable Character
 - Sculpture
 - Geometric Design
 - Neatness of Assembly
 - Number of Horticulture Products Used
 - Imaginative Use of Plants and Plant Materials
 - Overall Appearance
 - List Plants Used

CUT FLOWERS

Up to eight different entries may be exhibited in this class.

Consist of three stems with the same color blooms except as noted:

- Gladiolus – ONE spike with at least 12-inch stem and other large spikes
- Roses – ONE stem of the type entered
- Dahlias – THREE blooms of one color, or ONE bloom if over 6 inches
- Any Bloom 6 Inches or Larger – Show ONE specimen, such as a 6 inch or more sunflower or dinner plate Dahlia
- Stems should be 8 inches long, except where type of flower makes this impossible.
- Flowers that do not last as cut flowers (daylilies, hollyhocks, impatiens, portulaca, etc. may not be entered.
- Blooms of weeds, wildflowers and shrubs will not be evaluated. If you would like to show a weed or wildflower, you should enter it as a 'Methods' project where you might evaluate a weed for use as a cut flower.
- You may provide your own disposable container.

CLASS NUMBERS

- 2450 **Aster** – Annual
- 2451 **Bachelor Button**
- 2452 **Calendula**
- 2453 **Chrysanthemum** – Any form
- 2454 **Cleome**
- 2455 **Cosmo**
- 2456 **Dahlia** – 6-inch bloom, 1 stem; less than 6-inch blossoms, 3 stems
- 2457 **Flowering Tobacco**
- 2458 **Gladiolus**
- 2459 **Larkspur**

- 2460 **Marigold**
- 2461 **Delphinium**
- 2462 **Asiatic Lily** – One stem
- 2463 **Nasturtium**
- 2464 **Ornamental Grass** – Foliage and fully developed seed head
- 2465 **Phlox** – Annual
- 2466 **Rose**
- 2467 **Petunia**
- 2468 **Rudbeckia** – Coneflowers, Black-eyed Susan
- 2469 **Snapdragon**
- 2470 **Statice** – Fresh, not dried
- 2471 **Stock**
- 2472 **Strawflower** – Fresh, not dried
- 2473 **Sunflowers**
- 2474 **Sweet Peas**
- 2475 **Zinnia**
- 2476 **Zinnia** – Large, over 4 inches
- 2477 **Daisies**
- 2478 **Pansies**
- 2479 **Viola**
- 2480 **Carnation**
- 2481 **Miscellaneous** – Any other cut flower not listed, annual or perennial display the same number of specimens as similar crop listed.
- 2482 **Collection of 6 Garden Cut Flowers, Not Used In Other Cut Flower Entries** – One specimen of each variety. Flowers names and variety listed. No wildflowers, weeds or shrubs.

INDOOR GARDENING

List plants and varieties used.

All items should follow recommended guides of balance, design, proportion and harmony.

No artificial or plastic plant materials allowed.

Ribbon and bows as part of the design are allowed.

Entries must be grown in display container prior to June 1 of the current year.

CLASS NUMBERS

2500 **Dish Garden**

2501 **Terrarium or Closed Eco System** (no endangered species allowed)

INDOOR GARDENING: HOUSE PLANTS

House plants must be a single stem or crown in proportional container.

No artificial or plastic plant materials allowed.

Please list plant and variety.

Entries must be grown in display container prior to June 1 of the current year.

CLASS NUMBERS

2510 **Potted House Plant, Flowering**

2511 **Potted House Plant, Foliage**

2512 **Potted House Plant, Vine**

2513 **Potted House Plant, Hanging Container** – more than one plant accepted

2514 **Miniature House Plant** – 1 ¼ to 3-inch pot maximum (Example: miniature African Violet)

CONTAINER GARDENS

No artificial or plastic plant materials allowed.

Appropriate container and plant combinations.

Please list plants, plant materials and varieties included in container.

Entries must be grown in display container prior to June 1 of the current year.

For container gardens not applicable to Horticultural Methods Container Gardening.

CLASS NUMBERS

2525 **Perennial**

2526 **Annual**

2527 **Vegetable**

2528 **Ornamentals**

2529 **Theme Gardens** – Only may have some artificial material. These materials should not be a main focus of the exhibit. They should blend in. Plants should be prominent.

FRUITS and NUTS

All fruits and nuts must be cared for by exhibitors.

Nuts grown in the previous year may be entered.

CLASS NUMBERS

2550 **Apples** – 2, ripe, any single variety

2551 **Apricots** – 2, ripe

2552 **Blueberries** – ½ pint

2553 **Cherries** – ½ pint basket, with stems, any single variety

2554 **Elderberries** – attached to cluster, 1 quart

2555 **Grapes** – 1 bunch

2556 **Nectarines** – 1 ripe

- 2557 **Peaches** – 2, ripe
- 2558 **Pears** – 2, ripe, with stems, any single variety
- 2559 **Raspberries** – 1 pint, any single variety
- 2560 **Strawberries** – 1 pint, caps on
- 2561 **Other** – Minor fruits such as quince or persimmon, 3, ripe
- 2562 **Miscellaneous** – Any fruit not listed, display same number of specimens as similar crop listed
- 2563 **Nuts** – All ripe, dry unshelled, ½ pine, any single variety
- 2564 **A Collection of 3 Types** – Such as 3 different varieties of apples

FLORAL DESIGN

List plants and varieties.

List identification sources.

More information can be found at 4-H Leaflet H-7-3i Fresh & Dry Flower Arrangements

<http://hdl.handle.net.1813/17533>.

No artificial or plastic materials except for ribbons – with the exception of Theme Gardens (see class 2529).

Fall arrangements, gourd arrangements, and photo stories may be entered in class 2580/Open Class Exhibits.

CLASS NUMBERS

- 2575 **Dry or Fresh Flower Corsage** – in transparent bag
- 2576 **Table Arrangement of Live or Dry Plant Material** – Not over 12 inches in diameter and under 8 inches in height.
- 2577 **Holiday Decoration of Live, Dried or Natural Plant Materials** – No more than 18 inches in diameter or 24 inches long.
- 2578 **Plaque of Dried or Pressed Plant Material** – Includes other craft projects made with real plant material (Example: floral pictures). Plaques and pictures need to be signed.
- 2579 **Large Arrangement of Live or Dried Plant Material** – For arrangements over 12 inches in diameter and over 8 inches in height.
- 2585 **Miniature Arrangement** – Arrangement of fresh or dried flowers. Less than 6 inches in height and diameter, including container. List plants used.
- 2590 **Open Class Exhibits** – Exhibits deemed worthwhile but fall outside the categories described above. The decision to bring such exhibits is left to the discretion of the Extension 4-H Educator.
List plants and varieties used.
Exhibits will be judged according to similar project criteria.

HORTICULTURAL METHODS

This division gives young people a chance to participate in an interesting, different approach to growing plants. This enhances gardening skills and encourages the participant to think creatively.

Because of the difficulty of reproducing some of the horticultural methods for exhibiting purposes, a poster or poster series format may be used.

Use heavy poster paper (14 by 22 inches minimum) as background.

Glue or tape photos and diagrams, along with sheets of white paper that include your description within these sections:

1. Introduction
2. Growing method used
3. What you learned or discovered.

Instead of poster, an exhibit of the method itself (such as a small hydroponics set-up) can be displayed.

CLASS NUMBERS

2595 **Hydroponic Gardening**

2596 **Season Extender Methods**

2597 **Propagation**

2598 **Miscellaneous, Any Horticultural Methods Not Listed** – Entries will be judged according to similar project criteria.

LANDSCAPE PICTURES and PLANS

This division is a category in which youth can display what they have learned about the element of design and how plants can be grouped effectively for ornamental or edible purposes. It also offers an opportunity to display their garden.

All collections, pictures and plans will be enhanced by a clear, protective overlay.

Markers, colored pencils or paints may be used to embellish the landscape plan.

CLASS NUMBERS

2600 **Home Grounds Landscape Photographic Album**

Must have at least 6 'before' and 6 'after' pictures of current year's work.

2601 **Plan or Map of Home Grounds**

Drawn to scale.

Show things as they were at beginning of project.

A second map, with suitable and necessary notes, showing changes and improvements made.

In different colors, show changes and improvements yet to be made.

Indicate direction north on plan.

See 'Young People's Guide to Landscaping' at <http://www.hort.cornell.edu/gbl/pubs/index.html>.

2602 **Plan or Map of Apartment Dwelling**

Drawn to scale, showing grounds as they are currently.

A second map, showing proposed changes that would improve existing grounds.

Where ground space is available, a terrace or porch garden of containerized plants can be depicted.

Indicate direction north on plan.

2603 **Plan of Annual and, or Perennial Flower Garden**

Show varieties, name, placement, height and color.

Use scale not smaller than 1-inch equals 4 feet.

Indicate direction north on plan.

2604 **Plan of Home Orchard (tree fruit and, or berry crops)**

Show varieties, name, placement, height and time of fruiting.

Use scale not smaller than 1-inch equal 4 feet.

Exhibit should indicate current year's work. Current year's work will be judged.

Indicate direction north on plan.

2605 Plan of Home Vegetable Garden

Show varieties, name, placement, height and approximate harvest times.
Succession of plants may be indicated by a tracing paper overlay.
Use scale no smaller than 1-inch equals 4 feet.
Indicate direction north.

2606 Plan of Community Service Beautification Project

2607 Garden Record Book

List plants chosen and varieties.
List reason for selection.
Garden design sketch, including layout, dimensions, and spacing.
Indicate direction north.
Photos showing before and after are helpful.

2608 Horticulture Open Class

Class is an option for exhibits deemed by the county to be worthwhile but fall outside the categories described above.
The decision to bring such exhibits is left to the discretion of the Extension 4-H Educator.
Entries will be judged according to similar project criteria.
Horticulture posters that do not qualify for other Horticulture classes may be entered here.

FIELD CROPS

Sample of hay must be well cured, not moist.
Grasses, legumes and silage crops will be judged on the basis of their values as forage or silage.
Exhibits should be displayed in either tightly packed, clean baskets or slice of bale with approximately dimension 8 by 10 by 14, or as described.
Varieties listed.

CLASS NUMBERS

2610 Oats – 1 peck

2611 Wheat – 1 peck

2612 Any Other Small Grains

2613 Field Corn – 3 ears

2614 Haylage – Quart jar with mixture names on entry card

2615 Corn Stalks – 3 make an exhibit

2616 Alfalfa

2617 Clover

2618 Birdsfoot Trefoil

2619 Timothy

2620 Mixed Hay – State mixture on entry card

2621 Feeds Suitable for a 4-H Animal Project

Project must be specified, feed sampler attractively displayed on a board. Nutritional value and use of each sample must be described.
Miscellaneous entries will be judged according to similar project criteria.