Horticulture
4-H Project Newsletter

CANADA
4-H Nova Scotia

This Horticulture Project Newsletter contains information specific to the Horticulture Project. Please use it in conjunction with the General 4-H Information Bulletin, so that you are aware of Achievement Day completion requirements as well as general opportunities and information pertaining to all 4-H members. This Project Newsletter, as well as the General 4-H Information Bulletin, will be updated in October of each year, if necessary, based on changes made at the 4-H Nova Scotia Leadership Forum.

Welcome to the 4-H Horticulture Project! This project newsletter is designed to update you on project requirements, show changes in the rules and give you some ideas and resources available for project meetings. *Please refer to this newsletter for the most up-to-date information for this project.* Don't delay in getting underway with your garden plans for this year. Good luck and have fun!

Whether you have just recently discovered your "green thumb" or are an old pro at gardening, you can learn new ideas and techniques with an open mind and by taking advantage of the resources available. If you have any questions, please contact your Regional Program Coordinator (RPC).

Horticulture Project Work Requirements

The Project Work requirements for the Horticulture Project are a Display box (3'x 3' box) and a Specialty Item (See Floriculture and Garden specific information below).

Each member's project work will be evaluated on the quality of vegetables or flowers exhibited; presentation, or the way they are displayed and whether all the requirements are met.

4-H Nova Scotia Class List & Sections:

Each county is eligible to send the top two (2) junior and top two (2) senior articles from each class, Horticulture – Garden and Horticulture – Floriculture, to the 4-H Nova Scotia Provincial Show. The class and sections are as follows:

Class 11: Horticulture - Garden

Section 1:	Garden Collection
Section 2:	Garden Specialty Item

Class 12: Horticulture – Floriculture

Section 1:	Floriculture Collection
Section 2:	Floriculture Specialty Item

Note: Members are encouraged to get soil tests done before planting their garden vegetables and flowers. Soil tests can be done through the Nova Scotia Department of Agriculture.

Horticulture – Floriculture

Floriculture Display Box

The display box must not exceed three feet by three feet. **This measurement must include *all items* featured in the display** (i.e. - signs, labels, decorations).

Junior members (9-13 4-H age)

- Must grow and exhibit five (5) types of flowers (annuals, biennials or perennials), one (1) house plant and one (1) flower arrangement in the display box.

Senior members (14-21 4-H age)

- Must grow and exhibit six (6) types of flowers (annuals, biennials or perennials), two (2) house plants and two (2) flower arrangements in the display box.

Notes to Remember for Displays

- Kind or type of flower refers to the actual flower (i.e., lilies, marigolds, roses, snapdragons, etc.) and variety or cultivar refers to the different flowers within a type or kind (i.e., tiger lily, Easter lily etc.). Members may display different kinds or types in their displays.
- Plan your flower garden well with a variety of flowers that mature at different times. Most people will have to plan for at least two shows (Achievement Day and Exhibition) and possibly a third show being 4-H Nova Scotia Provincial Show. Plan ahead so you will have adequate numbers of flowers for all shows.
- ALL flowers exhibited in the display box must be grown in the member's flower garden. Floral arrangements cannot use wildflowers or any accessories such as candles, ribbons, rocks, driftwood, figurines, etc. Accessories and labels (cards, shells, frames, etc.) are acceptable in the display box, but not in the flower arrangements.
- Members may exhibit any annuals, biennials, and/or perennials if they have been grown in the member's garden and the required number is five (5) blooms or three (3) stalks/spikes.
- Members may use greenery from their flower garden, vegetable garden or greenery that occurs naturally in Nova Scotia for use in display of and arranging flowers. Members are encouraged to use such things as flower foliage, carrot tops, moss, and wild ferns.
- House plants can include succulent plants.

Floriculture Specialty Items

There are no restrictions to specialty items. Members may use ribbons, candles, accessories, artificial flowers, dried flowers, wild flowers, etc. Specialty items should be something you are interested in and something that relates to the floriculture project. We encourage members to work on these throughout the winter months, so you can enjoy the floriculture project all year long. Good luck and remember the only limit to specialty items is your imagination.

If members require video/slide equipment to display their project specialty item they must provide their own equipment at Achievement Day, Exhibition and 4-H Nova Scotia Provincial Show.

Note: All reports, posters or displays must include a bibliography for information taken from a source other than the 4-H member. (i.e., downloaded from the internet, etc.)

Flower Numbers to be Exhibited

Astros (classified on flower diameter)	5 blooms
Bachelor Buttons (centaurea)	5 blooms
Calendulas (scotch marigold)	5 blooms
Dahlias (classified according to type of flower head -cactus, formal, informal, ball, pompom)	3 blooms
Gladiolus	3 spikes
Lilies	3 stalks

Marigolds	5 blooms
Nasturtiums	5 blooms
Pansies	5 blooms
Petunias	5 blooms
Phlox	3 stalks
Snapdragons (antirrhinum)	3 spikes
Sweet Peas	3 stalks
Sweet Williams	5 stalks
Zinnias	5 blooms

Rule of Thumb - Unless listed above, flowers with multiple blooms would exhibit three (3) stalks or spikes. Individual blooms would exhibit five (5) blooms.

Horticulture - Garden

Garden Display Box

Junior Members (9-13 4-H age)

Must grow and exhibit a minimum of seven (7) vegetables in the display box.

Senior Members (14-21 4-H age)

Must grow and exhibit a minimum of ten (10) vegetables in the display box.

Notes to Remember for Displays

- The display box must not exceed 3' x 3'. **This measurement must include *all items* featured in the display**. (i.e. - signs, scarecrows, labels, decorations)
- Plan your garden well with a large variety of vegetables that mature at different times. Most members will need to plan for at least two shows (Achievement day and Exhibition) and, possibly, a third show being 4-H Nova Scotia Provincial Show. Plan ahead, so you will have enough different types and numbers of vegetables for all shows.
- Kind or type of vegetable refers to the actual vegetable (i.e., potato, peas, onion, etc.) Variety refers to the different kinds (i.e. Kennebec, Red Pontiac and Yukon Gold potatoes). Members may display different varieties of vegetables/herbs but are encouraged to display different kinds of vegetables within their display box.
- **One (1) herb (minimum of five (5) sprigs or stalks) constitutes one (1) vegetable**.
- All vegetables exhibited must be grown in the member's garden.

Garden Specialty Item

The Specialty Item is a separate project item from the garden display box. It should be something in which you are interested and something that relates to the project. We encourage members to work on this throughout the winter months. Be creative!

Some Suggestions Include:

- Collection of seeds, insects or weeds
- Reports, Posters or Demonstrations (Ex. How to start plants)
- Experiments (Ex: Seed germination growth rates or preserving methods)
- Compost bins or Terrariums
- Report on current topics in vegetable production (Ex: Genetically Modified Organisms)
- Helpful homemade Tools or Supplies used when growing vegetables (Ex: Trellis for pole beans, cold frames or transplant shelters)
- Anything else that fits the garden project

Vegetable Numbers to be Exhibited

Vegetable	Number Displayed
Beans	12 pods
Beets	5 roots
Broccoli	2 heads
Brussels Sprouts	2 stalks of 12 sprouts
Cabbage	2 heads
Carrots	5 roots
Cauliflower	2 head
Celery	2 heads
Chard, Swiss	2 plants
Citron	2 fruits
Corn, sweet	5 ears
Cucumbers(slicing)	3 fruits
Cucumbers (Gherkins or Pickling)	12 fruits
Eggplant	2 fruits
Garden Herbs	5 of one species equals 1 vegetable
Garlic	3 heads
Gourds	3 fruits
Kale	2 heads
Kohlrabi	3 stems
Leeks	5 (not branched)
Lettuce	3 heads
Muskmelon (Cantaloupe)	2 fruits
Onions (cooking)	5 bulbs
Onions (pickling)	12 bulbs
Onions (green bunching)	12 bulbs
Parsnip	5 roots
Peas	12 pods
Pepper	5 fruits
Potato	5 tubers
Pumpkin	2 fruit
Radish	5 roots (plants)
Rhubarb	5 stalks
Spinach	2 plants
Squash	2 fruits
Tomatoes (red or green)	5 fruits
Tomatoes (pickling or preserving) (whether plum, cherry or pear types)	12 fruits
Turnips	3 roots
Watermelon	2 fruits
Zucchini	2 specimens
Baby & mini vegetables (i.e. – cucamelons, baby corn, etc.)	6 specimens

Floral Arranging and Vegetable Preparation Competitions

This project offers hands-on competitions, where members are provided with materials to complete a project related task during a defined time frame. Members will be evaluated on their technique and finished product/outcome. This competition is hosted at County Shows/Exhibitions and members may advance to 4-H Nova Scotia Provincial Show. Pre-registration is required; to register please talk to your General or Project Leader. If you are looking for more information, visit the 4-H Nova Scotia website or contact your General Leader or RPC and they would be happy to provide you with the competition guidelines.

Note: The following guidelines will be utilized in evaluating 4-H Garden Projects.

Harvesting and Exhibiting Guidelines

Beans - Beans should be picked carefully from the plant, steadying the plant with one hand while pulling the bean and its short stem off together. If the stem is pulled off the bean, the bean can lose moisture and disease organisms can enter through the exposed wound. For exhibit, select beans that are long, straight, thin, and of equal size and shape. Choose beans high up on the plant for they are less likely to be diseased or to have soil splashed on them. A small section of stem should be attached to the fruit but trimmed neatly to about one (1) cm.

Beets - Digging beets with a spade or trowel is better than pulling them out of the ground. Carefully pick off all dead and discoloured leaves. Cut the leaf stalks (petioles) evenly about 2.5 cm above the root.

The beets should match each other closely in size and shape. Pull off secondary fine roots and trim the tap root below the beet to about 4 cm. Beets on a single plate should all be the same length, from the trimmed top of the leaf stalks to the lowest part of the tap root. Cleaning is best accomplished by rubbing your hands over the roots in warm water.

Broccoli - Broccoli heads are harvested by cutting with a knife 10 to 20 cm below the flower head. The stalks should be long enough to include the section where all the branches from the flower head attach together, yet short enough so they're tender. Broccoli heads are fragile and bruise easily with rough handling. A few leaves may be left surrounding the head, but lower leaves on the stalk should be trimmed off. The stalk end of the broccoli should be neatly cut in cross section. Choose a head or small side heads that have tight flower buds and that are generally smooth and symmetrical in appearance. Make sure there is no insect damage and that no insects are present on the plant.

Brussels Sprouts - Brussels sprouts should be approximately 2.5 cm in diameter for harvesting. Sprouts of the best quality are compact with no splitting or insect injury.

Cabbage - Cabbage is harvested by cutting the stalk at the soil line, taking the rosette leaves along with the head. Handle the cabbage using the extra outside leaves and try not to touch the head itself. Choose a cabbage that is free of insect damage, that is smooth, uncracked, has a full-grown head, and that shows good form. Cabbage is exhibited with the head surrounded by 3 or 4 wrapper leaves. The ground end should be cut squarely, and little or no insect damage should be apparent. Green, red, savoy and Chinese heading cabbages should all be exhibited in this way.

Carrots - Carrots should be gently dug from the soil. If the soil is heavy, dig a trench next to the row of carrots and then dig the carrots on the opposite side, releasing them into the trench. This way the roots are not broken and the carrots are not bruised. For an exhibit, select carrots that have a smooth shape and bright colour and are similar in size. Carrot tops should be removed 1 cm above the crown. Carrots

should not have green shoulders or other discolourations. Hair like side roots should be removed. Make sure no cleaning marks are left on the root by a rough brush or cloth.

Cauliflower - When harvesting cauliflower, cut the curd just below the head, leaving enough stem to hold the leaves that encircle the head. It is a very delicate vegetable and should be handled with great care.

When exhibiting cauliflower, the head should be white in colour, except for varieties whose heads are orange or purple. The cauliflower should be symmetrical and have a smooth surface. Leaves should be trimmed evenly so that the white curd is framed by a green rim of leaves.

Celery - Cut celery at the very base of the stalks, usually at ground level or a little below, so the head is connected but no root system remains. Remove leaves and stalks that are yellow or damaged.

The entire celery plant is exhibited, but the roots are cut off. Healthy leaf blades can be left on and not trimmed. In some cases, trimming may be necessary.

Corn - Corn, although protected by the husk, bruises easily if grabbed hard and twisted from the stalk. To harvest for exhibiting, corn should be cut from the stalk, applying little pressure to the ear. The stalk attached to the ear can be trimmed later to about 1.5 cm, cutting squarely with a sharp knife. Corn should be cooled as soon as possible once it's detached from the plant. Well-developed kernels should extend almost to the tip of the ear. Corn deteriorates rapidly, so it must be kept on ice or very cool until the time of the exhibit.

Cucumber - Cut cucumbers from the vine, retaining a small piece of the stem on the fruit. Trim the stems neatly to about 1 cm. Make sure the cucumbers are clean. Use water and a soft sponge to remove soil, being careful not to bruise them.

Eggplant - Cut the eggplant stems with a knife or shears, being careful not to injure the fruit. Eggplants for exhibit should be symmetrical and well-shaped with no scars or bulges. The skins should be glossy and clean. The stem should be trimmed neatly about 2.5 cm above the fruit and sepals.

Garlic - Specimens should have the same number of cloves per head. They should be free of soil, tops trimmed to 2.5 to 4 cm and roots left long. Specimens should be washed.

Gourds - When selecting gourds for exhibit, always gather them as matured as you can find with the stems still attached. The stem adds much to the appearance and is considered an esthetic part of the gourd. The stem also aids in the curing of the gourd later on. Do not leave a part of the gourd vine attached to the stem.

Clean the gourds thoroughly to remove all dirt, dust, spray or insect residue. Clean carefully near the stem as they break off easily. Do not put an artificial or glossy finish on your fresh gourd. For a natural sheen, polish the gourds by buffing with a soft cloth

(Source: American Gourd Society, americangourdsociety.org)

Herbs - Usually, the outer part of the branch or stalk of the herb is harvested. This is the newest growth and it should be cut 10 to 20 cm long, depending on the type of herb. Herbs are normally bunched, five (5) or more sprigs or shoots per bundle. One bundle of five (5) herbs of the same species constitutes one (1) vegetable. The smaller the shoot or area of leaf tissue, the more sprigs or shoots should be in a bundle. Cut ends should be neatly and evenly trimmed and leaves should not be tightly pressed together. Uniformity is important in colour, size of leaves, and shoot length. Different herbs should not be mixed.

Kale - To harvest kale, a rule of thumb to follow is that there should be from 10 to 15 leaves on the plant. Leaves that are faded and yellowed or show insect damage should be removed. To exhibit, remove all

roots. The head should have at least 10 good leaves on it. If it is difficult to carry the plant without knocking off the leaves, let the plant wilt slightly and cover it with a wet cloth. This allows the leaves to bend without snapping off. Do not handle the leaves, for they will be affected by the oil from your fingers.

Kohlrabi - Harvest kohlrabi by cutting it near the soil line below the enlarged stem portion. Four to six of the small center leaves should be left intact and the remaining leaf stalks should be trimmed. Remove all soil before exhibiting. Leave about 2.5 cm of root just below the enlarged stem.

Leeks - Leeks should be dug with a spade or fork to loosen their fibrous but shallow roots from the soil. Plants can be injured if they are pulled out by hand. For exhibit, leeks must be well cleaned. Use hard running water to clean soil out of the root area. Roots should be trimmed from five (5) to fifteen (15) cm above the shank area where the leaves fan out. The leeks should be well matched for total length, shank diameter and leaf colour.

Lettuce - All lettuce should be harvested at the soil line or even below by cutting with a sharp knife low enough on the stalk so that all the edible leaves are still attached. Once cut, remove the leaves that have yellowed, show damage, or are unattractive. Heads should be rinsed in water and shaken gently. To exhibit, remove the roots and any unattractive leaves. During an exhibit, misting helps prevent moisture loss from the leaves and keeps the heads looking fresh.

Muskmelon - Select melons that are well rounded, clean and stemless. No soil should remain on the fruit and the melon should be free of injury. The plant naturally seals the scar left by the stem as the fruit matures. Pulling the stem from the fruit before maturity leaves an opening that will allow moisture loss and invasion of rot-causing organisms.

Onions - Onions should be dug from the ground, not pulled out by their leaves. Gently rub the soil off the bulbs. To exhibit onions, select those that are uniform in colour, size and shape. Trim the tops to 1 cm above the bulb and cut the roots to just below the bulb. The onions should have a well-cured outer skin and neck, with unsightly bulb skin pulled away.

Parsnips - Parsnips should be dug with a spade or fork. They may grow quite deep, so make sure the spade goes down at least 25 cm to lift out the entire root. A trench can be dug next to the row of roots, and the parsnips can be moved with a spade into the trench from the opposite side with little resistance or breakage. Select parsnips for exhibit that are well matched in length, diameter and straightness of growth. Trim the tops 1 cm above the crown and take the side hair off the roots. Clean the parsnips well under water with hands or a soft sponge making sure they are not scratched or bruised by the cleaning.

Peas - Remove pea pods from the vine carefully, being sure to retain some of the stem. Peas may be bruised if pulled off the plant. It's best to hold the stem with one hand while gently pulling off the fruit with the other. To exhibit, select pods that are at the proper edible stage, of uniform size and shape and without apparent flaw. Stems should be cut to about 1 cm on all specimens.

Peppers - Peppers should be pulled from the plant while holding the plant firmly. A better method is to cut the pepper from the plant with a knife, leaving part of the stem attached to the fruit. For exhibit, peppers should be cleaned well with a soft cloth or running water. The peppers should be glossy and of uniform shape, size and colour. The stem should be attached and trimmed neatly to 1 cm.

Potatoes - Potatoes must be dug out of the ground with a spade or fork. Once dug, select potatoes that are of moderate size and true to form for their variety. For exhibit, the potatoes should be clean, have no surface defects and be similar in size and shape.

Pumpkins - Pumpkins should be cut from the vine, leaving as long a stem as possible on the fruit. Wipe them clean of soil. For exhibit, select those that are clean, bright in colour and symmetrically shaped. Trim the stems neatly (stems must be intact).

Radishes - Radishes should be loosened with a spade or fork and pulled gently out of the ground. For exhibit, select clean radishes that are bright in colour, and are free of any damage or blemishes. Tops and roots should be intact.

Rhubarb - Rhubarb stalks should be pulled from the crown of the plant. Hold the stalk firmly near the base of the plant, close to the soil, and pull straight up on the stalk. Cutting the leaf stalk is not healthy for the plant. For exhibit, cut the leaf blade from the stalk about 2.5 cm above its attachment to the petiole to prevent splitting the stalk. Display five uniform leaf stalks. The tops should be cut squarely, retaining a small section of leaf blade. No remnants of the crown sheath should be lower parts of the stalks and any soil should be washed off.

Rutabagas and Turnips - Both rutabagas and turnips should be dug with a spade or fork. For exhibit, select those that are about twelve (12) cm in diameter. Tops should be removed 1 cm above the crown. Side hairs should be pruned off and soil should be washed away. Do not display roots that are damaged by insects, disease, or handling or that are overgrown with cracks.

Spinach - Take care not to bruise spinach as it is harvested. The entire plant should have at least 10 leaves. Select plants that are full and symmetrical and not elongated.

Squash - Squash should be cut from the plant, leaving some of the stem attached to the fruit. Pressure bruising can occur if the fruit is twisted from the plant. To exhibit, take off any remnants of the dried blossoms and cut all stems evenly to within 1.5 cm of the fruit. Make sure squash is true to its variety description.

Tomatoes - Tomatoes are normally pulled from the plant. Be careful not to squeeze the tomato while removing it from the plant. Tomato specimens in an exhibit should be typical in form and colour for their variety. All specimens should be uniform in size, shape and maturity. The stem and calyx should be removed entirely and there should be only a small blossom scar on the opposite end. The tomatoes should be clean and bright.

Watermelon - Cut ripe watermelon from the vine, leaving 2.5 cm of stem attached to the fruit. For exhibit, select fruit that are symmetrical, have good shape and that fit the description of the variety grown. Make sure all soil is cleaned away from the fruit and the stem is cut neatly to 2.5 cm.

Source: *Vegetable Fare – Displaying Vegetables at their Best*. Cornell Cooperative Extension, Cornell University.