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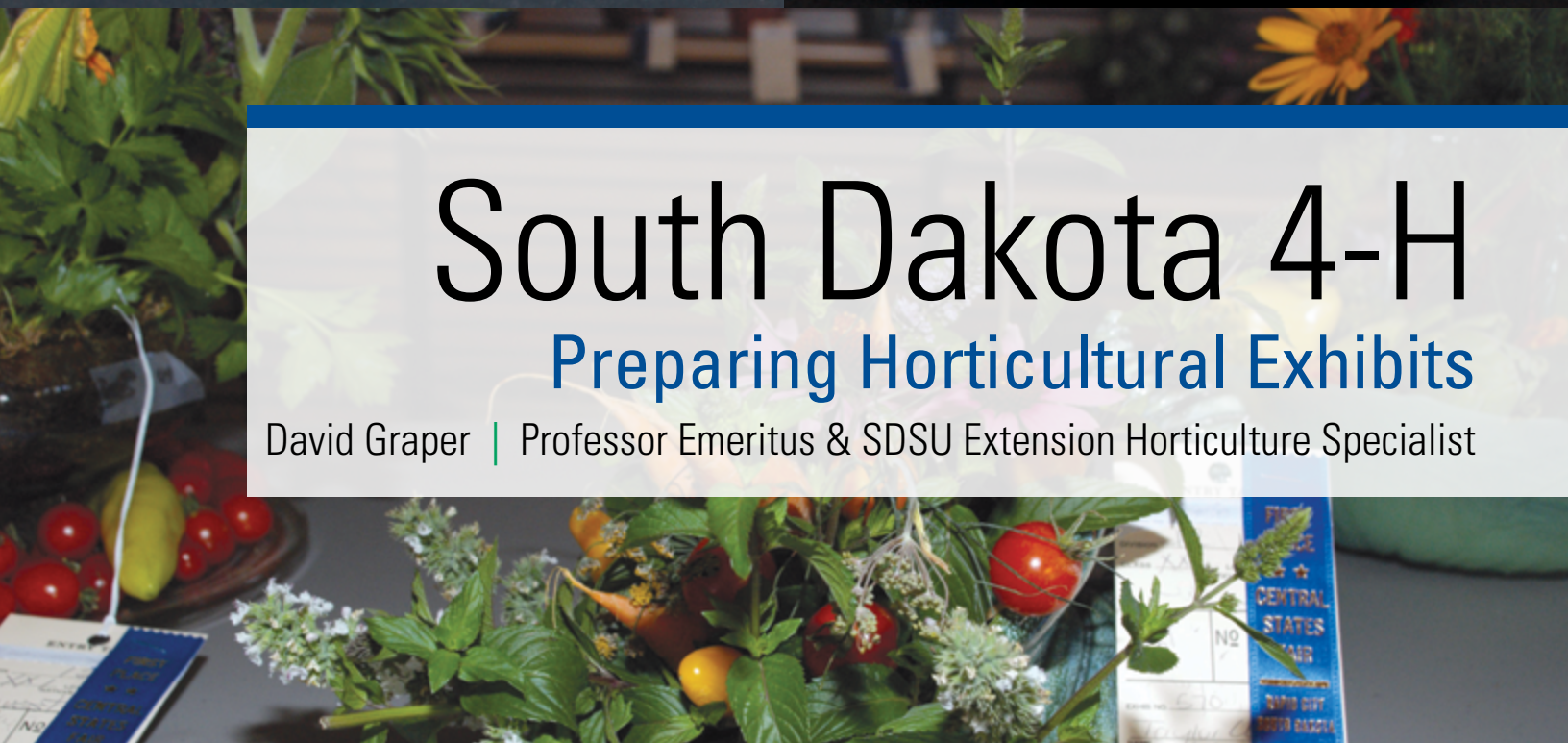
Extension



South Dakota 4-H

Preparing Horticultural Exhibits

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Table of Contents

| | | | |
|---|---|--|----|
| Follow the Rules | 3 | Potato | 9 |
| Vegetable Judging Criteria | 4 | Pumpkin | 10 |
| Instructions for Preparing Each Specific Crop | 4 | Radish | 10 |
| Beans | 4 | Rhubarb | 10 |
| Lima Beans | 4 | Squash | 10 |
| Snap Beans | 4 | Summer | 10 |
| Beets | 4 | Winter | 11 |
| Broccoli | 5 | Sweet Corn | 12 |
| Cabbage | 5 | Tomato | 12 |
| Carrots | 5 | Standard | 12 |
| Cauliflower | 6 | Cherry or pear types | 12 |
| Cucumber | 6 | Processing types | 13 |
| Slicing types | 6 | Turnips | 13 |
| Pickling types | 6 | Watermelon | 13 |
| Eggplant | 6 | Herb Plants | 14 |
| Standard types | 6 | Educational Exhibits | 14 |
| Long, cylindrical types | 7 | Educational display or poster | 14 |
| Garlic | 7 | Other Exhibiting Opportunities | 14 |
| Kohlrabi | 7 | Dish Gardens and Other Living Plant | |
| Leeks | 7 | Arrangements | 14 |
| Muskmelon | 7 | Potted House Plants | 14 |
| Okra | 8 | Flowering Annuals | 15 |
| Onions | 8 | Flowering Perennials and Bulbs | 16 |
| Dry for storage | 8 | Fresh Floral Arrangement | 16 |
| Green bunching | 8 | Planning Your Vegetable Planting | 17 |
| Parsnip | 8 | Glossary of Terms | 18 |
| Peas | 8 | Gardener's Reference Chart | 20 |
| Peppers | 9 | | |
| Sweet | 9 | | |
| Hot | 9 | | |

Preparing Horticultural Exhibits

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Read this publication before preparing your horticultural exhibits for 4-H Achievement Days and State Fair. The information provided here is the primary guideline used by judges when evaluating your entries. Failure to follow the rules and guidelines will lead to lower ribbon placings or perhaps no placing at all. Additional information and tips can also be obtained from SDSU Extension website (<https://extension.sdstate.edu/>).

Follow the Rules

If you are exhibiting vegetables and fruits, keep in mind the following general rules:

Display the variety name on the entry tag. Learning proper variety names is an important part of gardening and helps viewers of the exhibits to know the variety of the fruits and vegetables on display. Failure to designate a proper variety name will result in a lower ribbon placing. Take note of the varieties of vegetables that you plant in your own personal record book as well as on a tag or stake that you place in the garden next to the plants. You may even want to make a map of your garden plot to keep track of where everything is planted so you can refer back to it later when you are preparing your exhibits.

Select specimens of top quality and at prime maturity - the best stage for eating or storing, as the case may be. Remember, bigger is not always better.

Be sure exhibits that are for table use are as fresh as possible. If the vegetables don't look "good enough to eat," they probably will not receive a very high ribbon placing.

Clean and neatly trim tops of exhibits when necessary, as specified for the various exhibits.

Select specimens free from disease, insect, or mechanical injury. Infested or diseased materials may

be removed from exhibition and will not be awarded a ribbon placing.

Select specimens typical for the variety or type. Do not choose very small or very large specimens. Observe size limitations where listed.

Be sure that all specimens are as uniform in size, shape, maturity, color, and type as possible.

See that specimens are free from soil, dust, and spray residues, as well as any other foreign matter. Do not use polishing agents like oils and waxes.

Avoid skinning and bruising specimens when cleaning them. Specimens such as potatoes, beets, and others that are easily skinned should be soaked in water for a short time to avoid skinning and bruising when cleaning. Use a soft cloth to clean them. Do not use a brush. Consider wrapping specimens in paper towels or an old towel to protect them while transporting them to Achievement Days or the State Fair.

Follow the premium list so that the correct number of specimens is selected for display. Exhibits with incorrect numbers of specimens will receive a lower ribbon placing.

Specimens may be wrapped in plastic wrap or a plastic bag when being placed; however, this will be removed during judging. Wrap the entire exhibit loosely to facilitate removal.



Sweet Corn (Wrapped)

Take special care to keep exhibits cool while transporting them to Achievement Days. It only takes a few hours in the sun to wilt many fresh vegetables. Consider placing them in a large cooler or covered box to transport them to Achievement Days or the State Fair.

Vegetable Judging Criteria

Judging criteria for vegetable and fruit exhibits is provided so that 4-H members can see how important each of these considerations are to the placing of their exhibit.

| HORTICULTURE, GARDENING & LANDSCAPING | | | | |
|--|-----------|--------------|----------------|----------|
| Criteria | Excellent | Satisfactory | Should Improve | Comments |
| Quality and Condition (45%) | | | | |
| - Correct or proper stage of maturity | | | | |
| - Free of blemishes, bruises | | | | |
| - Free of disease | | | | |
| Preparation and Showmanship (50%) | | | | |
| - Variety of name is listed | | | | |
| - Correct number of specimens | | | | |
| - Proper trimming/cleanliness | | | | |
| - Uniformity of specimens | | | | |
| - Correct size | | | | |
| Trueness of Type and Variety (5%) | | | | |
| - Correct shape, form, color & other variety characteristics | | | | |

Circle Appropriate Ribbon Placing

| | | | |
|--------|------|-----|-------|
| Purple | Blue | Red | White |
|--------|------|-----|-------|

Judge's Initials: _____

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Judges reserve the right to cut open specimens for examination.

Instructions for Preparing Each Specific Crop

Beans

Lima Beans

Both small- and large-seeded lima beans should be dark green and well-filled. Pods should not be diseased or damaged. Seeds should be bright green. Stems should be 1/4- to 1/2-inch long. Exhibit 5 specimens.

Snap Beans

Pick pods and trim stems to 1/4- to 1/2- inch long. Pods should be well-filled, firm, tender, and stringless, as shown in the photo. All specimens should be uniform, either straight or curved, not mixed. Round-podded beans are preferred. Bush, pole, green, wax,



Snap Beans

purple and red- podded beans may be exhibited, but they must include the proper variety name. Exhibit 5 specimens.

Tips for Growing Great Beans:

- Avoid working around beans when they are still wet from dew to prevent the spread of leaf diseases
- Use chicken wire or hardware cloth to protect beans from rabbits
- Pole beans on trellises may produce straighter pods, but take longer to mature
- Water a day or so before harvest to ensure plump, juicy beans

Beets

Select beets that are between 1 and 2 1/2 inches in diameter; specimens that are too large will receive a lower placing. Each beet should have a single, unforked taproot attached to it. Remove root hairs. Trim the tops to 1 inch in length. Proper specimens will be smooth, not angular. The neck will be narrow, and shoulders should not be scaly. Flesh should be firm and crisp and have good color. Purple, golden, white and cylindrical types may be exhibited, but they must include the proper variety name. Exhibit 3 specimens.

Tips for Growing Great Beets:

- After they emerge, thin seedlings so that they are 4 to 5" apart
- Once roots start to swell, carefully mound a little extra soil around the tops to prevent scaly tops
- Don't plant too early or your beets will be too big to show at the fair
- If you have the garden space, plant in succession about 5 days apart to have a better chance at getting the best sized beets
- Water a day or two before harvest for the firmest beets



Beets

Broccoli

Minimum diameter of head should be 3 inches, with 4- to 6-inch diameter heads preferred. Stalk and head need to be at least 6 inches long. Carefully remove any leaves below the head or that extend through the flower buds at the top of the head. A proper flower bud cluster (head) will be compact and evenly colored with uniform buds of medium size. The buds will be a uniform green color with no sign of deterioration or yellowing. Exhibit 1 specimen.



Broccoli

Cabbage

There are several different types of cabbage including round-head, flat-head, savoy, pointed, and red that may be exhibited, but they must include the proper variety name. All types should meet the following requirements: Head should be of average size for the type. Head should be firm and heavy for its size. Head should not be withered, cracked, or discolored. The head should not show evidence of worm damage or have visible pesticide spray or dust residue. Retain 2 to 3 wrapper leaves for exhibiting purposes. Stalk should not be longer than 1/4 inch. Exhibit 1 specimen.



Cabbage

Cole Crop Tips:

- Look out for cabbage looper and worms in broccoli, cabbage and other related veggies
- Keep the roots cool by mulching once daytime temperatures are staying above 75° F
- Be sure to wrap cauliflower heads by tying outer leaves together to keep the curd snowy white
- Clean heads carefully before presenting at the fair

Carrot

Do not remove tip of the root. Trim tops to 1 inch in length. Shoulders should have no green or purple coloration. Proper specimens will be straight, with an un-forked taproot that has all side roots or root hairs removed. Color should be uniform and appropriate for the variety – orange, yellow, white or purple. Flesh should be firm and crisp. Exhibit 3 specimens.



Carrots

Carrot Tips:

- Work heavy soils deeply and remove rocks to give carrots room to grow long and straight
- Alternatively, try filling a deep trench with sandy soil or potting mix and planting carrots there
- Select a variety that produces shorter carrots for heavy clay soils
- Keep the soil evenly moist to prevent splitting
- Mix seed with a few tablespoons of sand to help sow more evenly
- Thin carrots so they have room to grow long and straight
- Mound a little soil around tops to prevent greening or purpling of the tops

Cauliflower

The head includes the stem, trimmed leaves, and the white edible part called the curd. The curd should be at least 4 inches in diameter and uniformly pure white. However, cauliflower that has green, purple or orange- colored curd may also be exhibited as long as the proper variety name is listed. The surface of the curd should be smooth, not fuzzy or granular. Allow the upper leaves surrounding the curd to remain, and trim about 1 inch above the outer edge of the curd, as shown in the photo. Stalk should be trimmed to about 1/4". Exhibit 1 specimen.



Cauliflower

Cucumber

Stems on all cucumbers need to be attached and trimmed to 1/4 to 1/2 inch in length. Fruits should be firm and free from damage or bruising. Stems are not part of the measured length.

Slicing types (over 6 inches long with a diameter not exceeding 2 inches) Proper specimens will be uniformly dark green with little streaking. Specimens should be fairly straight with blunt ends. Spines need to be removed. Exhibit 3 specimens.



Cucumber, Slicing Types

Pickling types (from 2 inches to 6 inches in length and less than 1 1/2 inches in diameter). Proper specimens will be uniformly straight and of even maturity. Display

with stems. To reduce wilting, spines should not be removed. Exhibit 3 specimens.



Cucumber, Pickling Types

Tips for the Best Cucumbers:

- Cucumbers must be well-watered so use mulch to keep the soil moist
- Turn cucumbers over periodically to get even coloring
- Spines may be removed from slicing types by using a soft, moist cloth
- Pick them at the right size for showing
- It is important to keep up with picking otherwise a few very large cucumbers will develop at the expense of having new, smaller fruit developing
- Trellising may help produce more uniform fruit and prevent disease

Eggplant

Stems need to be attached but neatly trimmed to 1 inch. Proper color will be deep purple or nearly black for most cultivars but some may be white or striped, as is appropriate for that particular variety. Be sure to list the proper cultivar name. General appearance should be glossy, not dull.

Standard types (over 3 inches in diameter, globular shape). The fruits need to be 6 to 8 inches in length and true to variety in shape. Exhibit 1 specimen.



Eggplant, Standard Types

Long, cylindrical types (less than 3 inches in diameter). Proper fruits need to be true to shape and size for variety. Exhibit 3 specimens.



Eggplant, Long Cylindrical Types

Eggplant Tips:

- Eggplant bruises easily so wrap in a towel while transporting
- Since eggplant is related to tomatoes and potatoes, look out for similar pests
- Corn borers like eggplants so be on the lookout

Garlic

Either softneck or hardneck garlic may be exhibited. Select specimens that are well-matured and properly cured. In order to cure garlic properly for exhibiting, dig two or three weeks before the event. After digging, leave bulbs in the garden row for a few hours to allow the soil on the bulbs to dry in the sun. Then place garlic in an airy, dry place to complete the curing process. When tops are dry, cut the tops at 1 to 2 inches and trim roots to 1/2 inch in length. Do NOT remove outer, dry, scale leaves or separate cloves. Exhibit 3 specimens.



Garlic

Tips for Great Garlic

- Plant garlic in the fall to allow sufficient time for growth and curing
- Mulch garlic to provide winter protection; remove mulch after danger of spring frost is over

- Remove any flower shoots that emerge to get larger bulbs
- Garlic is mature when the tops start to yellow and topple over

Kohlrabi

Specimens (the enlarged, edible portion of the stems) should be between 1 1/2 and 2 1/2 inches in diameter. Specimens should be firm and tender rather than woody and pithy. Remove stem 2 inches below ball. Remove all but 4 to 6 top leaves and trim the remaining leaf stems (petioles) to 1 to 2 inches as shown. Exhibit 3 specimens.



Kohlrabi

Leeks

Select uniform specimens that have a bright white stem base that is 1 to 2" in diameter. Trim roots evenly to about 1/4" in length. Uniformly trim the green tops to 3 to 4" above the white lower stem. Leaf bases should be clean and not cracked. Exhibit 3 specimens.



Leeks

Muskmelon

Fruit should be ripe, netted evenly, and free from injury or disease. Muskmelons are ripe when the stem separates from the fruit with very little pressure. (This is called the "full slip" stage.) A smooth separation scar is an indication of maturity. Exhibit 1 specimen without stem.

Okra

Select specimens that are mature and uniform. Pods should be firm and brightly colored. No darkening of the tips or ridges should be present. Trim stems to 1/4- to 1/2- inch long. Exhibit 5 specimens.



Okra

Onions

Dry for storage - Select specimens that are well-matured and properly cured. In order to cure mature onions properly for exhibiting at Achievement Days, dig two or three weeks before the event. After digging, leave onions in the garden row for a few hours to allow the soil on the bulbs to dry in the sun. Then place onions in an airy, dry place to complete the curing process. When tops are dry, remove by twisting. This leaves the scales closed tightly at the top of the bulb. Before showing, trim the tops neatly with a pair of shears to 1 to 2 inches in length. Do NOT remove outer, dry, scale leaves. At least one clean, dry, outer scale needs to remain on the specimens, as shown in the photo. Trim roots neatly, close to the base to 1/2- to 1- inch long. Yellow, red, and white dry onions are all exhibited in the same manner. (Onions should be planted about April 15 to allow sufficient time for growth and curing). Exhibit 3 specimens.



Onions, Dry for Storage

Green bunching - Select uniform specimens that are at least 1/4 inch but less than 1 inch in diameter. Trim

tops evenly, 4 to 6 inches in length. Trim roots close to the base, about 1/4-inch-long. Remove outer skin to expose clean, white, edible part. Exhibit 5 specimens.



Onions, Green Bunching

Tips for Onions:

- Properly curing dry onions takes 2 to 3 weeks so plan ahead
- Seeds or plants will grow better onions than sets. You can start seed about two months before you plan to plant in your garden or check a local garden center for seedlings
- As the bulb forms, remove the soil around all but the lower 1/3 of the bulb
- Look for long-day or day-neutral varieties which are the best type to grow for our area

Parsnip

Trim tops to a length of 1 inch. Do not remove the tip of the root. Specimens should be straight and without side root hairs. Shoulders should not be green. Color should be uniformly light cream. Exhibit 3 specimens.

Peas

Select uniform pods at optimal stage for fresh eating. Seeds need to be well-developed but not over-mature for variety. (Edible podded peas will have smaller seeds than snap peas.) Stems must be attached and trimmed to 1/4 to 1/2 inch in length. Exhibit 5 specimens.



Peas

Peppers

Sweet - Pointed or tapering types should have fairly straight sides. Blocky types should not be tapered or pointed. Trim stems of pointed or tapering types to 1/2 inch. Trim the stems of blocky types even with the shoulders to avoid bruising other specimens. Color should be uniform on all the fruits exhibited. All specimens in the exhibit should have the same number of lobes. Specimens should be firm and evenly shaped. Exhibit 3 specimens.



Peppers, Sweet

Peppers

Hot - All specimens need to be uniform in shape, color, and size. Color should be uniform and typical for the variety. Trim stems to about 1/2 inch. Exhibit 5 specimens.



Peppers, Hot

Tips for Peppers:

- Choose fruits with the same number of lobes that are similar in size, shape and color
- Different varieties of peppers will develop different colors as they mature. Any variety can be displayed but must be identified with the correct name.
- Plant several plants so there are many fruits to select from
- Cherry peppers are easy to grow and mature earlier than bell peppers
- Look out for common pests and for corn borers

Potato

Specimens should be typical of the variety in terms of size, shape, and color. There are different types of potatoes including white, red and russet. Potatoes must be identified by the proper variety name, not simply by type. Tubers need to be mature, free of disease, and have no skin damage. Tubers should have no greening (caused by exposure to light). Tubers need to be clean! Wiping with a soft cloth or new, soft-bristled paint brush is often a better method of cleaning than washing or scrubbing. (Soaking in water will soften hard soil, especially in the eyes.) Improperly cleaned exhibits will receive a lower ribbon placing. Exhibit 3 specimens.



Potatoes, Red



Potatoes, Russet

Potato Tips:

- Clean carefully by soaking in water and using a soft cloth or Q-tip to prevent skinning and bruising
- Always keep potatoes covered with soil to prevent greening while in the garden
- Store harvested tubers in the dark

Pumpkin

Proper specimens need to be well-matured with a hard shell. Stems need to be attached and trimmed to a length of 2 to 5 inches. Specimens should be typical for the variety being shown. Color should be uniform and the surface free from defects or scars. Variety names need to be accurate. True pumpkins have a square-ish, woody stem while types of winter squash have a rounded fleshy stem. Sweet, pie-type pumpkins are generally smaller, weighing 8 to 20 pounds, while the larger jack-o-lantern and squash-type pumpkins are usually larger 20 to 40 pounds and more. Miniature, inedible pumpkins are not eligible. Exhibit 1 specimen.



Pumpkin, small sugar

Pumpkin Tips:

- Pumpkins take a long time to grow and mature. Start seed indoors to get a jump on the season.
- After two good fruits have started growing, remove any extra pumpkins to push them along
- Never let pumpkins dry out for best growth

Radish

Radishes prefer cool weather and may be difficult to grow for achievement days or the fair. Consider growing daikon radishes as an alternative but remember not to let them get too large. Specimens should have smooth skins that are free of cracks. Color and shape should be typical of the variety. Specimens should be clean and uniform. Trim tops to 1". Exhibit 3 specimens.



Radishes

Rhubarb

Rhubarb prefers cool weather and generally isn't harvested after early July. Keeping plants moist and well-fertilized may help maintain production later in the season. Display stalks that are uniform in color and free from damage. Leaves should be removed, trimming about 1 inch from the top of the "stem" (petiole). Exhibit 3 specimens.



Rhubarb

Squash

Summer - Stems need to be attached but trimmed to 1 to 2 inches in length. Specimens need to be immature, young, and tender, which is indicated by tender skin. All are best for table use when 5 to 10 inches long and 1 to 2 inches in diameter for elongated types or 3 to 6 inches in diameter for scallop types. Do not exhibit hard, mature specimens. Specimens should be typical of the variety being shown. Types of

summer squash include:

Cocozelle - Fruit straight, tapered; skin smooth, dark green with light green to yellow stripes; tender when immature;

Crookneck - tapered bodies and curved necks;

Straightneck - fruit straight, tapered; skin fairly smooth;

Scallop - round to plate-shaped with scalloped edges;

Zucchini - Fruit cylindrical; skin smooth.



Squash, Summer – Zucchini

Color should be true for variety being shown. List the correct variety name; just “summer squash” is not adequate. Exhibit 3 specimens.

Squash

Winter - Proper specimens need to be well-matured with a hard shell. (A hard shell is usually not easily punctured by the thumbnail.) Stem must be attached and trimmed to 1 to 2 inches in length. Some varieties may have a yellow or orange ground spot which indicates proper maturity. Some types of winter squash include:

Acorn - primarily round, deeply ribbed and usually dark green but may be yellow, orange, or white;



Squash, Winter – Acorn

Butternut - shaped like a large pear with a long thick neck;



Squash, Winter – Butternut

Hubbard - large, round to oval, ribbed, bumpy fruit;

Turk’s Turban - flat, rounded fruit, often with a unique center resembling headwear by the same name;

Buttercup – like a Turban but with a less prominent center;



Squash, Winter – Buttercup

Spaghetti - medium-sized, oval and creamy white to light orange when mature;

Other winter squash – properly identified by cultivar.



Squash, Winter – Delicata

Specimens should be true to variety. List the correct variety name; just “winter squash” or “acorn” is not adequate. Exhibit 1 specimen.

Squash Tips:

- Harvest summer squash like zucchini at the correct size for eating to get a purple ribbon
- Handle carefully to prevent scarring and bruising
- Consider growing earlier maturing varieties since many require over 100 days to reach maturity which is certainly going to be after Achievement Days and likely after State Fair as well

Sweet Corn

Ears should be husked and trimmed and be uniform in length and thickness. Ears should be well-filled to the tips. Kernels should be tightly packed and in the milk stage. Rows of kernels should be straight. Trim shanks uniformly to about 1 inch in length, as shown in the photo. Different types of sweet corn include: standard, supersweet, sugar-enhanced and triple-sweet. The entire exhibit should be wrapped in a plastic bag to retain freshness. Field corn or frozen sweet corn should not be shown. List the correct variety name. Exhibit 3 specimens.



Sweet Corn

Tips for Great Sweet Corn:

- Insect damage from corn borer and corn earworm is common—Watch out!
- Pick ears that are at peak eating stage early in the morning so they are good and juicy
- Add nitrogen fertilizer alongside the rows when corn is 4- to 8- inches tall to get larger ears
- Keep corn moist to help ears fill all the way to the tips
- Corn is pollinated by the wind, so plant it in blocks for good pollination

Tomato

Standard - Proper specimens will be of uniform diameter and size that is typical for the variety being shown. Color will be uniform without green streaks unless that is typical for the variety. Shoulders should

have no off color, which indicates uneven ripeness or sunscalding. Remove stems carefully to prevent bruising injury to other specimens. Blossom-end scar should be almost invisible. Specimens should be firm and free from cracks and scars. Red, yellow, pink or even heirloom varieties may be exhibited but must be properly labeled. Exhibit 3 specimens.



Tomato, Standard

Tomato

Cherry or pear types - Size and shape of specimens needs to be uniform and typical for the variety being shown. Color should be uniform without green streaks unless that is typical for the variety. Remove stems carefully to prevent bruising injury to other specimens. Blossom end scar should be almost invisible. Specimens should be firm and free from cracks and scars. Red, yellow, or pink varieties may be exhibited. Exhibit 5 specimens.



Tomato, Cherry or Pear Type

Tomato

Processing Type – Follow the guidelines for cherry tomatoes. Exhibit 5 specimens.



Tomato, Processing Type

Tomato Tips:

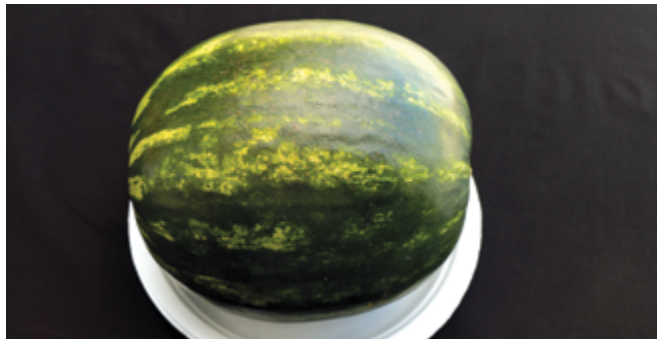
- Keep tomatoes evenly moist to avoid fruit cracking and blossom-end rot
- Stake plants and use mulches to keep the fruits clean
- Look out for blossom end rot and other blemishes
- Handle with care to prevent bruising and scarring

Turnips

Specimens should be about 2 1/2 inches in diameter. Do not remove tap root. Trim tops to 1 inch in length. Specimens should not be blocky or angular. Neck should be narrow and shoulders should be smooth. Exhibit 3 specimens.

Watermelon

Specimens should be ripe with the stem attached. The rind should be firm. The color should not appear dull and the ground spot should be yellow as an indication of maturity. List correct variety name on entry tag. Exhibit 1 specimen.



Watermelon

Watermelon Success Tips:

- Watermelon grows best in moist, sandy soil with warm temperatures
- Start plants indoors ahead of time to get a head start
- Ripe melons have a yellow or orange spot where they laid on the ground and make a dull, hollow sound when thumped. The tendril adjacent to the stem of the fruit will also turn dry when the fruit is ripe

Herb Plants

Herbs need to be properly dried and individually mounted on 8 1/2 x 11-inch cardstock showing plant parts that are used. Larger cards can be used if necessary, but all cards in the exhibit must be the same size. Identify specimens, giving the common name. Also list which parts of the plant are used, what they are used for, and any special uses for the herb. Herb collections are best exhibited in scrapbook form. An attractive cover may be used on the scrapbook to add interest to the exhibit. Exhibit 5 cards as a collection.

Educational Exhibits

Posters should be informative and provide a message or tell a story developed by the exhibitor. The exhibit should be neatly done and be the work of the exhibitor.

Educational Display or Poster

The main objectives of the exhibitor should be to provide an attractive display that provides an educational message. The display or poster should be well constructed, attract the viewer, and send a clear message. Originality and workmanship are also important factors in determining the ribbon placing of the display.

Other Exhibiting Opportunities

Achievement Days vary from one county to another. 4-H members may have the opportunity to prepare other types of exhibits that cannot be exhibited in 4-H at the State Fair but may be exhibited in "open class." Typical horticultural exhibits include dish gardens, potted houseplants, flowering annuals, flowering perennials and bulbs, small fruit, and tree fruits. Consult the premium list and exhibiting instructions for your county for additional information about exhibiting locally.

Dish Gardens and Other Living Plant Arrangements

Dish gardens are miniature gardens made in an open dish or container and are not considered terrariums. Exhibitors supply their own containers. Make sure the container is suitable for use as a planting container. The container should have a drainage hole for best results, especially when tropical plants are used. The shape and type of container should complement the selection of plants used in the display and not detract from them.

Plants in a dish garden should all require similar growing conditions. For example, succulents and



Cactus Dish Garden

cacti often make very attractive dish gardens since they all require fairly high light levels and relatively low amounts of water. Plants that require high humidity are often better suited to planting in a terrarium but may be used in a dish garden if sufficient care is provided. Judging criteria are similar to those used for a terrarium. Special consideration is given for plant materials selected, plant arrangement, and overall design of the dish garden. It is helpful to the viewer if the 4-H member provides a list of the plants used in the dish garden. This will make the dish garden exhibit more educational and interesting.

Potted House Plants

Exhibiting house plants may be an excellent opportunity for many 4-H members to show their expertise in taking care of a potted plant. Lots will generally be available for various flowering as well as foliage types of house plants. Plants will generally need to have been grown by the exhibitor for at least three months before they would be eligible for display.

House plants will generally be judged on how well the plant has been grown, the quality of the foliage, presence of flowers (if it is a flowering plant), freedom of damage from insects, disease or other injury, and suitability of the container. Generally, the best plants will be in a pot large enough to accommodate the plant



Sanseveria Potted House Plant

but not so large that the plant appears lost in a big pot. The container of taller plants should be approximately 1/3 the total plant height. Containers with drainage holes are preferred.

Select house plants that have been growing well, in the same container, for several months. You may want to try cleaning the foliage by carefully rinsing the leaves with a garden hose, placing the plant in the shower, or wiping the leaves with a damp, soft cloth. Try to identify the variety of plant by its common name or even by its botanical name, if possible.

Flowering Annuals

Many home gardeners first start gardening with various types of flowering annuals. These plants are generally easy to grow and the wide variety of plants available gives ample opportunity to select plants that are suited to your home yard or garden. Excellent success can also be obtained by growing many annual flowers in containers. Proper care of the plants, including good watering, weeding, fertilizing, and pest control will help to assure the best chance of producing excellent flowers.

The prime criteria in judging these exhibits will be the presence and quality of the flowers. Best flowering will result when a plant is given the proper growing environment. Take some time to examine your yard or flower bed to decide the type of plants best suited to that location before buying bedding plants or seed. The amount of sun exposure is often a key factor. Check the seed packet or plant tag for information on cultural requirements for the flowers you would like to grow.

Multi-flowering plants can often be encouraged to produce larger flowers if the extra, side-branch flowers are removed when the primary flower is developing. This practice is called disbudding. It may work well for such cut flowers as asters, carnation, chrysanthemum, cosmos, dahlias, zinnias, and others. Of course, this sacrifices a greater number of flowers on a stem for fewer, larger flowers.

An important factor in judging cut flowers is the absence of any signs of insects, disease, or other pest problems on the foliage and flowers. The presence of live insects on an entry will almost certainly lower its ribbon placing. Carefully examine potential cut flower stems for presence of insects or signs of their feeding before selecting them for exhibition. Best

pest control involves careful examination of the plants during the growing season for signs of insects and disease. If pests are present, try to get assistance in controlling them. Eliminating weeds from a garden will also reduce other pests and probably result in the production of larger, healthier flowers, too. However, also remember that the presence of pesticide residue on the foliage or flowers will likely result in a lower ribbon placing.

Flowers will generally be judged superior if they are displayed at the best stage for cutting. This will vary from one kind of flower to another. Usually, spike flowers like larkspur, snapdragon, stock, and others are at a stage where 1/3 of the flowers are fully open, 1/3 are showing good color and nearly open and 1/3 are still in bud. This stage provides for a good balance between optimal display and maximum vase life. Other types of cut flowers will generally be at the best stage if the outer anthers are just beginning to shed pollen. If necessary, cut flowers can be stored in a refrigerator for several days to two weeks if properly cut and prepared.

Cut flowers should be cut early in the morning or late in the evening of the night before they are to be exhibited. Be sure to take a container of lukewarm water into the garden when cutting flowers. Use a sharp knife or good pruning shears to cut the flowers.



Cut Sunflower

Immediately place the cut stems into the water. When all the flowers have been cut, take them indoors. Use a sharp knife to recut the stems and place them back into water.

A flower preservative solution may be used to increase vase life of cut flowers. Floral preservative is generally available from local florists. A simple home recipe can be used as well. It consists of 1 part water and 1 part lemon-lime (non-diet) soda. If possible, place the cut flowers into a refrigerator. However, do not place fresh cut flowers into a refrigerator that contains fruit, since gasses (mainly ethylene) produced by the fruit will shorten vase life or even cause the flowers to drop.

Select a small container in which to display your cut flowers. Small, clear, glass beverage bottles or small vases work well. Be sure to display the proper number of blooms or stems as described in the fair premium information. Just keep in mind that the flowers will likely be on display for several days, so do not use too small a container or the flowers will run out of water. Fill the container with a fresh mixture of preservative solution before submitting your entries.

Flowering Perennials and Bulbs

Many of the same factors that help an annual garden to produce good flowers will also help a perennial garden produce the best possible flowers for exhibition. Once



Lily Cut Flower

again, these entries will be judged for the perfection of the flowers. Absence of pests like insects and disease will also help assure better results. (See discussion in flowering annuals.)

Proper stage for cutting of perennial and bulb flowers is very important. As with flowering annuals, spike flowers are best cut so that they are 1/3 open. Types of spike flowers include delphinium, gladiolus, hosta, and veronica. As with flowering annuals, cut them in the evening or early morning for best results. Recutting the stems, using a preservative solution, and storing in a refrigerator will also help to maintain best flower quality.

Fresh Floral Arrangement

Following all of the production and display guidelines for FLOWERING ANNUALS and FLOWERING PERENNIALS AND BULBS above, display a fresh floral arrangement. Be sure the arrangement is aesthetically pleasing and incorporates proper design principles of balance, scale, unity and flow. Any live materials may be used. Do not use permanent botanicals in this fresh arrangement.



Fresh Floral Designs

Planning Your Vegetable Planting

Many 4-H members who plan to exhibit vegetables at their County Achievement Days make two common mistakes. Some plant the entire garden at one time, hoping that some crops will be ready to exhibit on Achievement Days. Others may plan more carefully and plant a vegetable at a specific time in order to have it mature by Achievement Days, but then they may not consider the State Fair.

The first case shows lack of planning and relies mostly on chance. The second shows planning, but doesn't consider that if a purple ribbon is won at Achievement Days, another sample of that vegetable is eligible to be exhibited at the State Fair, usually at a somewhat later date.

During the time between many Achievement Days and the State Fair, a crop such as snap beans could very likely become too old to exhibit. Except in very rare cases, you will have to harvest fresh vegetable specimens to exhibit at State Fair. The ones you used for Achievement days will usually not keep until State Fair. Since optimum maturity or prime table quality is one of the most important considerations in judging vegetables, planting exhibition vegetables at the proper time is essential.

Many crops such as tomatoes and peppers bear over a long period (until frost) and there is usually an ample supply from which to choose good specimens. Squash (winter) and potatoes are examples of crops which remain in good condition for future use. However, crops like snap beans and sweet corn do not remain at prime table quality very long and have a rather short, concentrated harvest period. If only one planting is made, good specimens may not be available at the time they are needed.

With crops that are harvested over a long period, such as muskmelons or tomatoes, plant the crop early enough so it will mature 1 to 2 weeks before the date of your Achievement Days. This allows for variations due to weather and variety.

Planning for more than one planting of a crop not only provides quality vegetables for exhibiting at a particular time, but it also provides a supply of vegetables for the family over a longer period. With careful planning, a family can harvest a continuous supply of fresh vegetables throughout the growing season.

Use the Gardener's Reference Guide on page 20 to plan your garden so that vegetables will be available for exhibition at a particular date.

How can you use the chart? Take sweet corn as an example. If your Achievement Days is August 17 and you want a good specimen, check the maturity date according to the variety in the column (ready for use from date of seeding). If it requires about 75 days to reach maturity and the harvest season is about 7 days, add 4 days to the 75 days to allow for variation in weather, totaling 79 days. Subtract 79 days from August 17 and you will find the date to be May 30. This is the date you plant sweet corn. Planting dates for the State Fair could be worked out similarly. This could be for either a single or a successive crop.

Glossary of Terms

Anther – the part of the flower that produces pollen, usually found near the center of the flower on small “stems” or in rows in a button-like center of a flower.

Ball – the edible, enlarged stem of a vegetable.
Example: kohlrabi.

Base – the lower portion of the edible part of a vegetable. Example: the base of an onion is the area from which the roots grow.

Bud – immature flowers or leaves. Example: flower head of broccoli and cauliflower.

Bulb – see Scale

Cap – the green, leaf-like part surrounding the stem where it is attached to the berry. Example: strawberry.

Curd – the white, edible, undeveloped flowering portion of cauliflower.

Flesh – The solid, enlarged, edible part of a vegetable plant. Example: beet and carrot roots and kohlrabi ball.

Foliage – the leaves of the plant or cut stem.

Ground Spot – the area of watermelon or other squash that rests on the soil. It is white until maturity, when it turns yellow.

Head – the enlarged, edible bud or flowering portion of a vegetable plant, borne at the end of the stem. Example: head of cabbage (composed of overlapping leaves); head of broccoli and cauliflower (composed of hundreds of undeveloped or immature flowers).

Herb – An herbaceous plant that can be used for flavoring food. The leaves are most commonly used, but seeds, flowers, and roots of certain plants also are utilized. Some are used for medicinal purposes as well as for scent and flavor.

Lobes – the more or less distinct divisions, rounded at one end that make up certain vegetables. Example: most blocky or bell-shaped peppers have three or four lobes which are prominent opposite the stem end.

Milk Stage – the immature stage of sweet corn kernels when they are plump and filled with a thin, milky juice.

Neck – area where the leaf or stem is attached to the root or the bulb of a vegetable. Example: the neck of an onion is just above the bulb; the neck of a beet is the small area at the top of the root from which the leaves grow.

Netting – corky, raised markings on muskmelons.

Petiole – the stem-like structure that connects the leaf blade to the true stem, as in rhubarb where we actually eat the petiole.

Preservative solution – usually a mixture of water, citric acid, sugar, and other materials, used to extend the vase life of a cut flower.

Root – (as used here) the underground, edible part of a vegetable. Example: carrot or beet.

Scale – a thickened leaf. Example: bulbs such as onions are made up of many thickened, overlapping scales. Several of the outer scales become dry as an onion bulb matures. These protect the onion from disease, injury, and drying out.

Shank – a short branch of the main stem. Example: the ear of sweet corn is borne at the end of the shank.

Shell – a hard, tough outer skin of a squash or pumpkin.

Shoulder – area below the neck or the point of the attachment to the stem. Example: shoulder of a beet, shoulder of a pepper, etc.

Specimen – one sample of any vegetable entered in an exhibit. Example: one snap bean pod, one beet, one muskmelon, etc. (Many exhibits require several specimens.)

Stalk – (as used here) another name for stem. Example: the heads of broccoli, cauliflower, and cabbages are borne at the end of the stalk.

Sunscald – a whitish area, usually on the shoulder of a vegetable, caused by direct exposure to the hot sun. Example: sunscald of tomato, pepper.

Terrarium – a small, indoor, glass enclosed garden. Its name comes from the Latin word terra, meaning earth. The terrarium may be made in a clear-glass bowl or

similar glass container. It contains small living plants in an interesting arrangement. Tiny figures, bridges, and paths may be included. The plants should be in scale to the size of the container, in good physical condition, and are not crowded.

Tuber – enlarged, underground stem. Example: Irish potato.

Type – a classification that may include several varieties of a vegetable similar in at least one major characteristic. Example: round-head, flat-head, and pointed-head cabbage are three distinct types of cabbage, differing mainly in head shape.

Vase life – the length of time a cut flower will last after it has been cut and put into a vase of water.

Variety – a classification of plants which are alike in all characteristics. This is a more specific classification than type. Example: Irish Cobbler potato, Sioux tomato, Tendergreen bean, Little Marvel pea, etc. (Notice that variety names are always capitalized.)

Wrapper Leaves – the loose, outer leaves of the head of a vegetable that serve to protect the tightly packed inner leaves. Example: a head of cabbage has several wrapper leaves.

Gardener's Reference Guide

| Kind of Vegetable | Seeds per 100 ft row | App. no. seeds per lb. | Distance between rows hand cult. | Plants apart in rows | Depth of planting | Time of planting in open garden | Ready for use from date of seeding | Length of time good specimens can be harvested |
|-------------------|-----------------------|------------------------|----------------------------------|----------------------|-------------------|---------------------------------|------------------------------------|--|
| Beans, Lima | 1 lb. | 1,200 | 18-24 in. | 2 in. | 1 in. | April to May | 50-75 days | 3-4 weeks |
| Beans, Snap | 1 lb. | 1,200 | 18-24 in. | 2 in. | 1 in. | April to July | 50-75 days | 3-4 weeks |
| Beets | 1 oz. | 192,000 | 12-18 in. | 2-3 in. | 1 in. | April to July | 50-65 days | 2-3 weeks |
| Broccoli | 1/4 oz. | 160,000 | 24-36 in. | 18-24 in. | 1/2 in. | April to May | 90-100 days | 10 days |
| Cabbage | 1/4 oz. | 120,000 | 24-30 in. | 12- 18 in. | 1/2 in. | April to May | 90-110 days | 2 weeks |
| Carrots | 1/2 oz. | 320,000 | 12-18 in. | 2 in. | 1/2 in. | April to June | 55-80 days | Until frost |
| Cauliflower | 1/4 oz. | 160,00 | 24-30 in. | 14-18 in. | 1/2 in. | April to June | 65-76 days | 2-3 weeks |
| Cucumber | 1/2 oz. | 16,000 | 4-6 ft. | 4 every 4 ft. | 1 in. | May to June | 50-70 days | Several weeks |
| Eggplant | 1/8 oz. | 96,000 | 24-30 in. | 18 in. | 1/2 in. | April to May | 90-130 days | Until frost |
| Kolhrabi | 1/4 oz. | 135,000 | 18-24 in. | 6 in. | 1/2 in. | April to May | 50-70 days | 2 weeks |
| Muskmelon | 1/2 oz. | 16,000 | 6-8ft. | 4 every 4 ft. | 1 in. | May to June | 80-120 days | Until frost |
| Onions, Dried | 1 oz. | 120,000 | 12-18 in. | 2-3 in. | 1/4 in. | April to May | 95-120 days | Can be stored |
| Onions, Green | 1/2 lb. sets | 120,000 | 12-18 in. | - | - | April to May | 5 weeks | 2 weeks |
| Parsnip | 1/2 oz. | 10,000 | 24 in. | 3 in. | 1/4-1/2 in. | April to May | 120-150 days | Until frost |
| Peas | 1/2 oz. | 50-150 | 24 in. | 3 in. | 1 in. | April to May | 50-80 days | 2 weeks |
| Peppers | 1/8 oz. | 72,000 | 18-24 in. | 15 in. | 1/2 in. | May to June | 80-100 days | Until frost |
| Potato | 10 lbs. or 100 pieces | - | 3-4 ft. | 12-18 in. | 4 in. | May | 100-120 days | Until frost |
| Pumpkin | 1/2 oz. | 100 | 72 in. | 4 every 4 ft | 1/2-1 in. | May to June | 100-120 days | Until frost |
| Squash, Summer | 1/2 oz. | 4,800. | 3-4 ft | 4 every 4 ft. | 1 in. | May to June | 60-70 days | Until frost |
| Squash, Winter | 1/2 oz. | 2,000 | 7-10 ft. | 4 every 4 ft. | 1 in. | May to June | 100-125 days | Can be stored |
| Sweet Corn | 1/4 lb. | 3,520 | 30-36 in. | 2 every 8 in. | 1 in. | May to July | 55-90 days | 7-10 days |
| Tomatoes | 1/8 oz. | 160,000 | 3-4 ft. | 2 1/2 to 4 ft. | 1/2 in. | May to June | 60-100 days | Until frost |
| Turnips | 1/2 oz. | 11,000 | 18 in. | 6 in. | 1/4-1/2 in. | April to June | 40-50 days | 1-2 weeks |
| Watermelon | 1 oz. | 3,600 | 8-12 ft. | 4 every 4 ft. | 1 in. | May to June | 90-130 days | Until frost |

*The number of seeds per pound varies widely between varieties and lots of the same species, but figures given are approximately average.