HORTICULTURAL
Crop Judging Manual

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OKLAHOMA STATE UNIVERSITY
EXTENSION

Horticultural Crop Judging

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How does a consumer choose which apple to buy? … or which pint of strawberries? … or which potted mum? … or which bouquet of flowers?

The ability to evaluate the quality of horticultural crops is important not only from a consumer's viewpoint, but also from a grower's viewpoint. The grower's income depends upon the consumer's purchasing the product. According to the 1987 Census of Agriculture, the fruit, nut, and berry industry has a market value of nearly $7.1 billion, and the cut flower, cut greens, potted flowering plant, and potted foliage plant industry has sales worth $1.7 billion. Our concerns with the indoor and outdoor environments have brought about a heightened awareness of the benefit of fresh fruits and vegetables in our diet, and the benefit of live foliage and flowering plants to our own health and the health of our environment.

Horticultural crops are evaluated on four main criteria—symmetry, uniformity, proportion, and showiness. **Symmetry** refers to the equal distribution of mass around the central point of a given geometric form. For example, the form of a flowering potted mum plant should appear round when viewed from above. **Uniformity** refers to the similarity of individual specimens within a horticultural crop class. For example, four strawberries in a class should be uniform in size, shape, color, etc. **Proportion** refers to the size relationship between the crop and its container. This criteria is specifically applied to horticultural crops that are grown and/or displayed in containers. For example, potted foliage plants should be potted neither in too large, nor too small of a container. **Showiness**, which may be interpreted as floriferousness or abundance of foliage when referring to floriculture crops, refers to the visual appeal of the crop. For example, cut flowers should be approaching their peak of bloom and color. Specimens within a class, displaying similar qualities for these four main criteria, can be discerned by evaluating for crop-specific merits and faults.

Staging

When a class is staged, the differences among the specimens should be discernible, but not obvious. The process of staging, that is arranging specimens from first through fourth place, is essentially the process a grower uses when preparing a crop for distribution. Faults must be properly identified and weighted; however, one must not forget that materials are graded primarily on their merits, that is positive attributes, not their faults. The best material should be present in the first place entry, not interspersed throughout the class. The stager should compare the best of the second place with the worst of the first place to verify the placing, exchanging material among entries until the differences are real and defensible. Third and fourth place entries are then staged in the same manner from the remaining material.

Judging

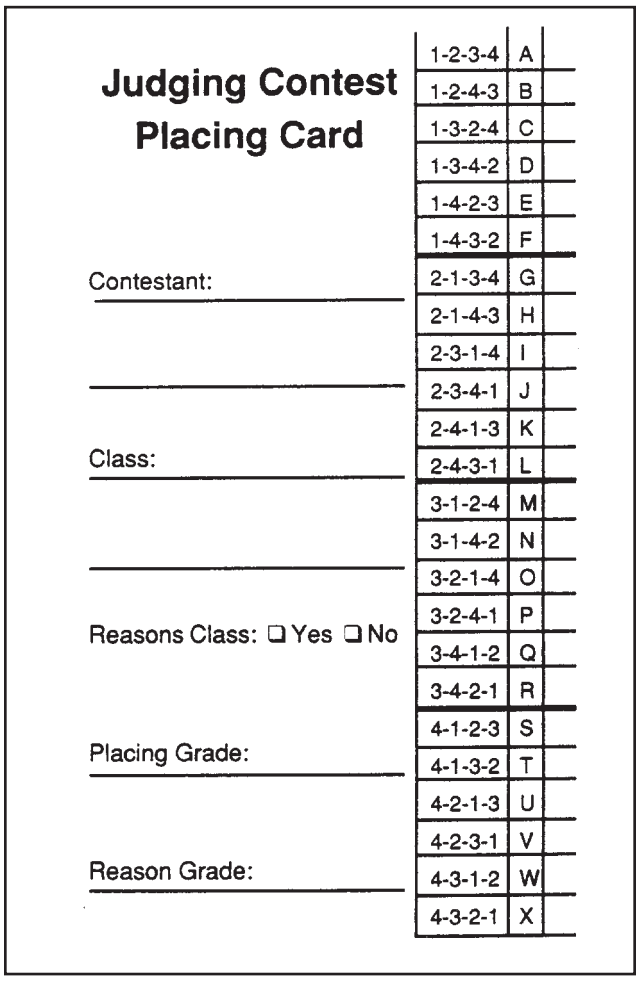
The thought processes behind judging are the same as staging, except that the judge must not touch the materials, but rather tally the merits and faults of each entry in his or her mind, or maybe on the back of the scoring card. The judge should be aware of the time limit; it may vary depending on who is hosting the contest. The State Fair 4-H Horticulture Judging Contest at Oklahoma City permits three minutes per class, as does the State FFA Interscholastic Meet at Oklahoma State University.

The judge should identify the best or first place entry by the major positive criteria. He or she should look for the entry with the most nearly perfect material by concentrating on the positive attributes, but don't ignore the negative. The first place entry should not have any major faults. Next, the judge should identify the worst or fourth place entry by the major negative criteria. Then, he or she should identify the second and third place en-

tries as intermediate between first and fourth place. The judge must carefully weigh the positive and negative criteria to determine placement. Finally, the judge should confirm the order of placement by summarizing the merits and faults.

The judge should circle the order on the judging card which corresponds to the number representing the first, second, third, and fourth place entries, respectively. For example, if the judge identified the #3 plant as being the best, and therefore the first place entry; the #4 plant as being the second place entry; the #1 plant as being the third place entry; and the #2 plant as being the worst, therefore the fourth place entry; he or she should circle the order 3-4-1-2 on the judging card.

Although giving reasons is not part of the State Fair 4-H Horticulture Judging Contest in Oklahoma City, the State FFA Interscholastic Horticulture Meet at Oklahoma State University, or the National Intercollegiate Floral Crop Quality Evaluation Contest, verbalizing his or her reasoning for placement



4-H Judging Contest Placing Card

strengthens the judge's ability to recognize real and defensible differences. The judge should bear in mind that some contests may include a score for reasoning; therefore, it is good to practice judging as if he or she were going to give reasons.

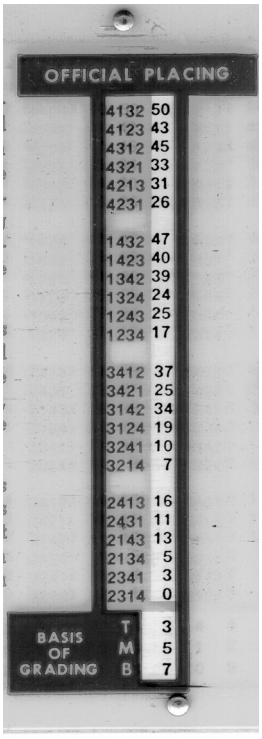
The judge should follow four guidelines when preparing to give reasons. (1) He or she should ***take accurate notes*** by writing reasons for placement on the back of the judging card. This will help clarify the criteria used for selection. (2) The judge must be sure to ***make complete observations***, omitting no important reasons for placement. (3) He or she must *be clear in* ***stating reasons***, following logical organization when presenting reasons from best to worst place. (4) The judge should ***emphasize differences*** by highlighting the criteria that distinguish the placements, including merits and faults.

SCORING

There is a maximum of 50 points per judging class. Cuts are determined by the judging official who stages the contest. Cuts establish by number the margin of difference between each of the three pairs. These numbers represent the penalties for switching the top (T), middle (M), and bottom (B) pairs and as such form the basis of grading. The total of all three penalties cannot exceed 15. If they total 15, the middle number cannot be larger than 5. If they total 14, the middle number cannot be larger than 8. There are no restrictions on cuts totaling 13 or less. Generally, the easier it is to distinguish the difference between two entries, the greater the cut should be. For example if the cuts were 3:5:7 (T:M:B), the first and second place entries would be most nearly alike, accounting for a three point deduction in the judge's score should he or she have swapped their placement; the middle pair would be less alike, accounting for a five point deduction in the judge's score should he or she have swapped their placement; and the bottom pair would be the least alike, accounting for a seven point deduction in the judge's score should he or she have swapped their placement.

The cuts become additive should the judge mistakenly place an entry more than one position above the official's placing. Continuing with the

example above, if the official placing were 4-1-3-2 with cuts of 3:5:7, and the judge marked the placing as 3-1-4-2, the following points would be deducted from 50. Reading the judge's placement from left to right, the judge placed 3 above 1, and the official placed 1 above 3; therefore, 5 points will be deducted (50 – 5 = 45). Next, the judge placed 3 above 4, and the official placed 4 above 3; therefore, 3 + 5 points will be deducted (45 – 3 – 5 = 37). Next, the judge placed 3 above 2, as did the official, thus no points are deducted. Next, the judge placed 1 above 4, and the official placed 4 above 1; therefore, 3 points will be deducted (37 – 3 = 34). Next, the judge placed 1 above 2, as did the official, thus no points are deducted. Finally, the judge placed 4 above 2, as did the official, thus no points are deducted. The total score in this example is 34.



Window of Hormel Computing Slide

Judges and their coaches may wish to use the Hormel Computing Slide or OSU's Judging Contest Scoring Program CSS-115 to make scoring easier.

Potted Plants and Nursery Stock

Some potted plants have an upright form and others have a trailing form. Although the shape of the specimen will vary according to species, those which have an upright form should be compact and symmetrical with uniform distribution and abundance of foliage from the top of the pot to the tip of the plant. The size of container should be appropriate for the size of the plant. The stem or stems of the plant should be strong enough to support it in an upright position, unless it is a vining type plant being grown in an upright form. In this case, it is acceptable for the plant to be supported and enhanced by a pole or stake.

When a vining type plant is grown in a trailing form, the shape and size of the plant should complement the hanging container. The plant should uniformly cascade over the sides of the container to a length in scale with the depth of the container.

General guidelines beyond symmetry, uniformity, proportion, and showiness for judging potted plants are:

- Good form
- Strong stems
- Plant(s) centered in pot
- Same number of plants per pot
- Clean, blemish-free foliage with no spots of spray, water, or fertilizer residue
- Green, vividly colored, or distinctly variegated foliage
- Absence of insect, disease, mechanical, or ethylene injury

Additional guidelines specific to foliage or flowering potted plants are as follows.

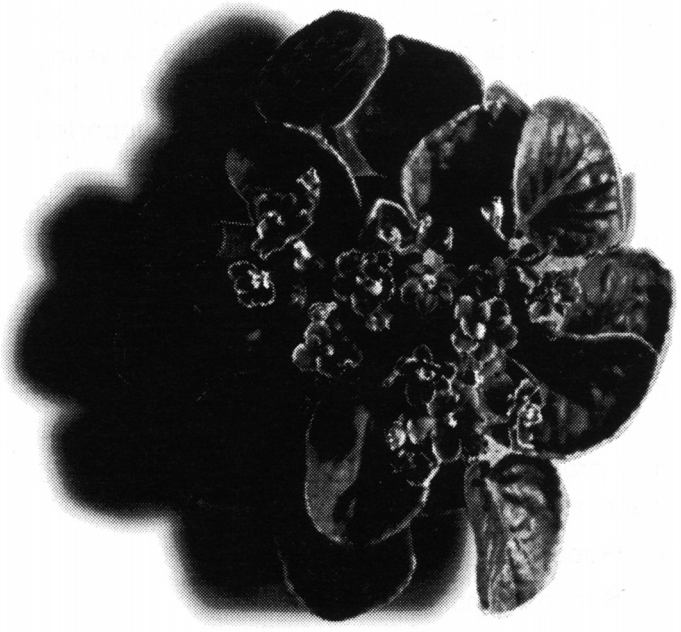
Foliage Potted Plants

- Absence of large, conspicuous flowers (Exception is given for some foliage plants which are valued for their flowers, such as Peace Lily (*Spathiphyllum* spp.) and Flamingo Flower (*Anthurium* spp.))

Flowering Potted Plants

- Abundance of blemish-free flowers with 1/3 to 1/2 of them open
- Absence of peduncle stubs from faulty or late disbudding

Additional guidelines specific to a given species are as follows.



African Violet

African Violet Plants

Saintpaulia ionantha hybrids

Multiple-crown plants and single-crown plants should not be present in the same class; a class should be composed of all multiple- or all single-crown plants.

- Absence of overcrowding or twisted leaves
- Absence of stretched petioles
- Strong stalks of flowers held above the foliage

Azalea Plants

Rhododendron hybrids

- Absence of new vegetative growth around the flowers and buds

Begonia (Rieger or Hiemalis) Plants

Begonia × *hiemalis*

- Single, well-branched plant in a 4" to 6" pot
- Plant slightly wider than tall; height 80 percent of width
- ≥5 primary flower stems
- Flowers and flower bud potential equal to leaf area

Calceolaria (Pocketbook) Plants

Calceolaria Herbeohybrida Group

- Leaves and flowers 1 1/2 to 2 times the height and diameter of the pot
- Flowers on stiff stems held above the foliage

Cineraria Plants

Pericallis × *hybrida*

- Hemispherical shaped plant
- Dome-shaped floral display directly above the foliage

Cyclamen Plants

Cyclamen persicum

- Hemispherical-shaped plant of firm, stocky growth
- Outside ring of leaves held above the pot's rim
- Flowers on stiff stems held above the foliage in a flat plane

Daffodil Plants

Narcissus hybrids

- Leaves and flowers 2 1/2 to 3 1/2 times the height of the pot
- Absence of signs of warm temperature stretching
- Flower stems same length, producing flat-topped floral display
- Flowers ≥ 3 3/4 inches in diameter and borne above the tallest foliage
- Flowers face outward, at a right angle to the stem, toward the perimeter of the pot
- Perianth segments are broad, flat, and overlapping slightly to form a relatively flat disk
- Corona is cylindrical, tapering smoothly into the perianth
- Corona may be notched, curled, or recurved; although, notches must not extend into the body of the trumpet

Easter Lily Plants

Lilium longiflorum

- Single stem rising 12" to 18" above pot's rim
- Four to eight flowers and buds facing outwards radially
- Anthers removed and absence of pollen smears
- Foliage longer at bottom than at top of stem

Exacum (German or Persian Violet) Plants

Exacum affine

- Tightly mounded with a somewhat cross-shape as seen from above

Geranium (Garden or Zonal Type) Plants

Pelargonium × *hortorum*

- Three to six flower stems per plant held about 2" above the foliage

Geranium (Ivy Type) Plants

Pelargonium × *peltatum*

- Three to six flower stems per plant held about 2" above the foliage

Geranium (Regal, Martha, or Lady Washington Type) Plants

Pelargonium × *domesticum*

- Synchronous flowering of all reproductive buds

Gloxinia Plants

Sinningia speciosa

Multiple-crown plants and single-crown plants should not be present in the same class; a class should be composed of all multiple- or all single-crown plants.

- Regular whorls of leaves, radiating from a common stem and appearing from the side as a flattened dome
- Large leaves with short petioles
- Flowers loosely clustered about the center of the plant and held above the foliage
- 15 to 35 flowers and buds with about 1/4 fully open

Hydrangea Plants

Hydrangea macrophylla

- 15" to 20" single stem plant, branching just above soil level to form a round or rounded triangle when viewed from above
- Panicle of florets, terminating each primary stem—minimum of three per plant
- 90 percent of florets open and are either blue or pink, consistent within the class
- Absence of cleft in panicle
- Absence of blind shoots and short scrubby growth at base of plant

Kalanchoe Plants

Kalanchoe blossfeldiana

- Single, branched plant or up to three plants potted as one
- Flowers and flower buds held above foliage and distributed over crown of plant

Mum Plants

Dendranthema × *grandiflorum*

- Usually one to eight plants per pot, producing the effect of one plant
- Compact plant 15" to 18" above the pot's rim
- Flowers in a slightly convex plane

Poinsettia Plants

Euphorbia pulcherrima

Poinsettias are grown in various forms—pinched, straight-up, hanging basket, and standard (tree). Size of a given form should always be in proportion to the pot. The true flowers are the small yellow cyathia in the center of the showy bracts.

Fuji Mum

Although red is the most popular bract color, poinsettias "flower" in pink, white, yellow, and various speckled and splotched combinations of these. A class should be composed of the same form, variety, and color of plant.

- Height of 15" for a 6" to 6 1/2" pot size with foliage from the pot's rim to the bracts
- Large, colorful bracts with cyathia

Primrose Plants

Primula spp. and hybrids

- Single plant of closely spaced leaves with short petioles, centered in a 4" to 5" pot
- Flowers carried in sprays or whorls just above the rosette of foliage with little or no space between flowers and foliage
- One to 10 flowers per flower stem, closely or loosely attached depending on the cultivar

Tulip Plants

Tulipa hybrids

- Leaves and flowers 2 1/2 to 3 1/2 times the height of the pot
- Absence of signs of warm temperature stretching
- Flowers not over 1/4 to 1/2 open
- Anthers not dehiscing pollen
- Flowers held above the foliage
- Absence of blotching, streaking, and blemishes in the flowers
- Absence of stem distortion if secondary buds are present

Cut Flowers

Commonly there are six or twelve cut flowers per judging container.

General guidelines beyond symmetry, uniformity, proportion, and showiness for judging cut flowers are:

- Good form, facing, and spacing of florets
- Flowers placed squarely on the stem
- No missing flowers or flower buds unless intentionally removed to form a spray or mass
- Strong, straight stems
- Clean and blemish-free with no spots of spray, water, or fertilizer residue
- Absence of insect, disease, mechanical, or ethylene injury

Additional guidelines specific to cut flowers are as follows.

Spike Flowers

Freesia Cut Flowers

Freesia cultivars

- ≥10 florets per primary scape with one to two florets open
- Four to five florets per lateral scape if present
- Scape bent 90° at the first floret
- Absence of thumbing—excessive space between first and second florets

Gladiolus Cut Flowers

Gladiolus hybrids

- Flower spike ≥1/3 of total stem length
- Florets evenly spaced with no open spaces among the florets
- 2/3 of florets open and facing forward
- Presence of non-bent, intact tip on flower spike
- Absence of lateral flower spikes
- Florets progressively smaller from base to tip of spike

Liatris (Gayfeather) Cut Flowers

Liatris spicata and *L. scariosa*

- Compact, non-spiral arrangement of florets
- Progression of development from tip to base of spike
- Tip floret fresh
- Absence of lateral growth

Snapdragon Cut Flowers

Antirrhinum majus

- Flower spike 2/3 open and 1/3 in bud
- Progression of floret development from base to tip of spike
- Flowers firm and free from dense wrinkling that resemles crepe paper
- Absence of lateral growth
- Absence of seed pods or old flowers

Stock Cut Flowers

Matthiola incana

- Flower spike 3/4 open and 1/4 in bud
- Progression of floret development from base to tip of spike
- Flowers firm and free from dense wrinkling that resemles crepe paper
- Absence of lateral growth
- Absence of seed pods or old flowers

Spray Flowers

Alstroemeria (Peruvian Lily) Cut Flowers

Alstroemeria hybrids and cultivars

- Three to five cymes radially arranged with flowers facing outward
- Primary flowers fully opened with anthers dehiscing pollen and pistil elongating but not split
- Presence of secondary and tertiary flower buds
- Peduncles not excessively long or short

Carnation (Miniature or Pixie) Cut Flowers

Dianthus caryophyllus

- Stem ≥24" long
- Flowers ≤2 1/2" in diameter
- Four to six flowers and flower buds uniformly distributed along the main stem
- Plane of outer petals perpendicular to the stem

Mum (Daisy) Cut Flowers

- Hemispherical shaped flower
- Strong calyx with no splits

    1. *Slight fault*—calyx split less than 1/2 its length

    2. *Medium fault*—calyx split to the receptacle, but without flower deformation

    3. *Serious fault*—calyx split to the receptacle with flower deformation, for example petals spilling out
- Absence of "sleepiness" where petals in-roll because of ethylene

Mum (Daisy) Cut Flowers

Dendranthema × *grandiflorum*

- Flowers borne in a flat or slightly convex plane
- Center inflorescences open, outer inflorescences tighter
- Absence of promiscuous rays, where the ray florets arise within the disk florets

Mass Flowers

Carnation Cut Flowers

Dianthus caryophyllus

- Plane of outer petals perpendicular to the stem
- Hemispherical shaped flower
- Strong calyx with no splits

    1. *Slight fault*—calyx split less than 1/2 its length

    2. *Medium fault*—calyx split to the receptacle, but without flower deformation

    3. *Serious fault*—calyx split to the receptacle with flower deformation, for example petals spilling out
- Absence of "sleepiness" where petals in-roll because of ethylene
- Absence of lateral growth or faulty disbudding

Carnation

Daffodil Cut Flowers

Narcissus hybrids

- Flowers ≥3 3/4 inches in diameter
- Flowers at a right angle to the stem
- Perianth segments are broad, flat, and overlapping slightly to form a relatively flat disk
- Corona is cylindrical, tapering smoothly into the perianth
- Corona may be notched, curled, or recurved; although, notches must not extend into the body of the trumpet

Dutch Iris Cut Flowers

Iris hollandica

- Flowers placed squarely on the stem
- Standards are vertically erect and without tears
- Falls are without tears and flare at right angle to the standards
- Absence of an interfering second bud

Gerbera Cut Flowers

Gerbera jamesonii

- Circular inflorescence when viewed from above
- Outer ray florets arranged in a flat plane, overlapping at regular intervals
- Absence of promiscuous rays, where the ray florets arise within the disk florets
- Absence of over-mature stamens, that is more than two rows dehiscing pollen
- Absence of weak necks

Mum (Standard) Cut Flowers

Dendranthema × *grandiflorum*

- Inflorescences approaching maturity with some center florets not fully developed
- Absence of promiscuous rays, where the ray florets arise within the disk florets

Rose Cut Flowers

Rosa spp. and hybrids

Many types of roses and cultivars within types are grown. Hybrid tea, grandiflora, and floribunda are the more common. Commercial roses are typically of the hybrid tea type, grown as a large, single flower on a strong, straight stem, and may be judged in one of two stages—wholesale or retail. Wholesale stage is fairly tight in which one to several outer petals have just separated from the rest of the bud. Retail stage shows flowers no more than 1/4 to 1/3 open. Amateur stage has flowers at least 1/2 open and is common to 4-H State Fairs and shows sponsored by the American Rose Society. Judges should be informed of the desired stage before judging begins. Presence of mechanical injury to foliage is nearly unavoidable but should be minimal.

- Petals arranged in a single spiral
- Absence of bullheads (stubby roses with stiff petals) and peanuts (roses with normal form but abnormally small and of low petal count)
- Absence of signs of outer petals having been peeled off
- Absence of weak necks
- Absence of side shoots or flower buds and recent or faulty disbudding

Tulip Cut Flowers

Tulipa hybrids

- Flowers not over 1/4 to 1/2 open
- Anthers not dehiscing pollen
- Flowers held above the foliage
- Absence of blotching, streaking, and blemishes in the flowers
- Absence of stem distortion if secondary buds are present

Fruits

Commonly there are four or six fruits per judging plate. Fewer are used when the specimens are large. All entries within a class should be uniform in size, shape, color, and maturity. The best entry should be at prime condition for eating, not scratched or bruised. Freedom from injury caused by insects, disease, or handling is important, as is freedom from drought and nutritional deficiency.

General guidelines beyond symmetry and uniformity for judging fruits are:

- Good form and size appropriate to the variety
- Color of fruits consistent with variety
- Same number of fruits per entry
- Clean, blemish-free fruits with no spots of spray, water, or fertilizer residue
- Absence of insect, disease, mechanical, or ethylene injury

Additional guidelines specific to fruits are as follows.

Apples 'Golden Delicious'

- Four fruits per entry
- Clear, yellow skin color
- Absence of russet spots

Apples 'Jonathan'

- Four fruits per entry
- Red skin color with yellow background

Apples 'McIntosh'

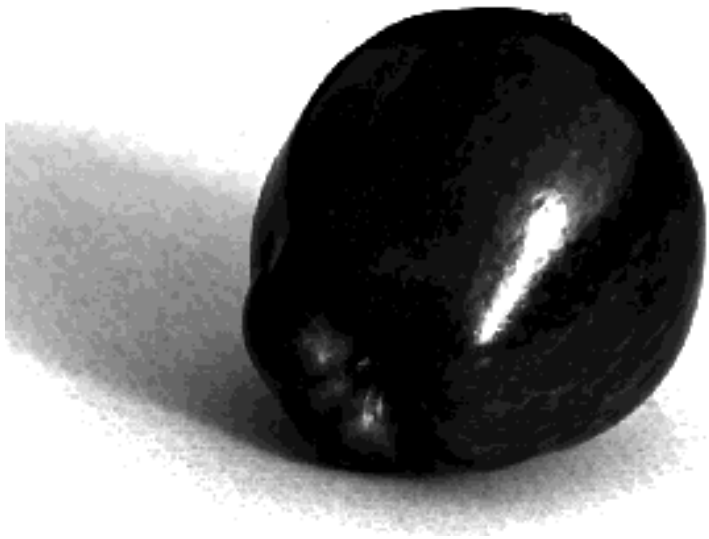
- Four fruits per entry
- Red skin color with green background
- Flattened in shape

Apples 'Red Delicious'

- Four fruits per entry
- Dark red skin color
- Oblong shape, accented with five points on blossom end

Avocados

- Four fruits per entry
- Smooth, green skin or dark green to black, rough skin, depending on variety
- 2 1/2 to 3 1/2" in diameter
- Pyriform to oblong to round form



'Red Delicious' Apple

Banana

Bananas

- ≥4 fruits (fingers) at 8" to 12" long per hand
- Solid yellow skin color
- All fruits firmly attached to base

Blackberries

- Fruits filling a pint container per entry
- Black with no red drupelets
- Absence of calyces

Blueberries

- Fruits filling a pint container per entry
- Dark blue to black with a waxy bloom
- Absence of stems

Grapefruits

- Four fruits per entry
- Skin color yellow with a red blush if a red-fleshed variety
- Fine skin texture
- Flattened globe shape
- Absence of green in skin

Grapes

- Minimum of one large bunch per entry
- Berries compact but not compressed
- Berries oval or ovate shape
- Absence of desiccation

Lemon

Lemons

- Four fruits per entry
- Fruits about the size of large eggs with stem end to blossom end diameter greater than cross-sectional diameter
- Yellow, fine textured skin
- Intact, green button (calyx) on stem end
- Stem cut flush with the button

Nectarines

- Four fruits per entry
- Skin color primarily red with either yellow or white background color
- Waxy skin texture
- Round to slightly oblong shape, devoid of a beak

Oranges

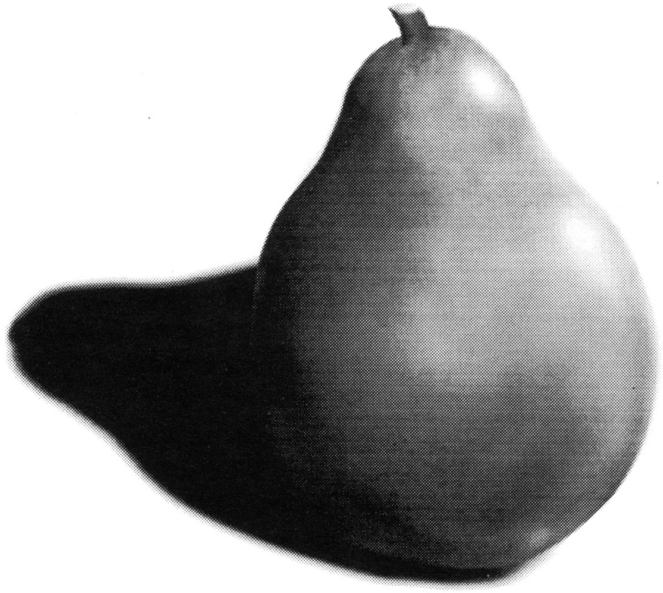
- Four fruits per entry
- Skin color orange with no trace of green
- Fine skin texture
- Intact button (calyx) on stem end
- Stem cut flush with the button
- Areole on blossom end very small to non-existent, except on Navel oranges

Peaches

- Four fruits per entry
- ≥2 1/2" to 3" diameter fruit
- Skin color red with yellow or white background, characteristic of variety
- Fuzzy skin not excessively pubescent
- Round to slightly beaked on blossom end
- Inconspicuous suture devoid of soft spots

Pears

- Four fruits per entry
- Pyriform to round shape
- Skin color green or red with slight yellow background color, characteristic of variety



Pear

Pineapples

- Two or more fruits per entry
- Cylindrical shape
- Skin color yellow-orange
- Intact, fresh leafy top

Plums, European

- Four or more fruits per entry
- Skin color glossy, dark blue to black, characteristic of variety
- Oval to slightly necked on the stem end
- Absence of waxy bloom on skin

Plums, Japanese

- Four or more fruits per entry
- ≥1 1/2" in diameter
- Skin color glossy, green to dark red, characteristic of variety
- Oval to slightly beaked, characteristic of variety
- Absence of waxy bloom on skin

Raspberries

- Fruits filling a pint container per entry
- Red to black, characteristic of variety
- Drupelet cup devoid of receptacle

Strawberries

- Fruits filling a pint container per entry
- Uniformly red
- Intact, fresh calyx
- Conical to slightly flattened shape, characteristic of variety

Tangerines

- Four fruits per entry
- Skin color orange
- Skin may appear loose
- Flattened shape with diameter from stem end to blossom end less than cross-sectional diameter
- Intact button (calyx) on stem end
- Stem cut flush with the button

Tangelos

- Four fruits per entry
- Skin color yellow-orange
- Flattened to necked in shape

VEGETABLES

Commonly there are three to six vegetables per judging plate. Fewer are used when the specimens are large, more when they are small. Freedom from injury caused by insects, disease, or handling is important, as is freedom from drought and nutritional deficiency.

General guidelines beyond symmetry and uniformity for judging vegetables are:

- Good form and size appropriate to the variety
- Color of vegetables consistent with variety
- Same number of vegetables per entry
- Clean, blemish-free vegetables with no spots of spray, water, or fertilizer residue
- Absence of insect, disease, mechanical, or ethylene injury

Although some of the following are botanically considered fruits, because of their method of preparation or service they are horticulturally classed as vegetables. Generally, if an item is served after the main course, requires little or no preparation, and may be sugared, it is horticulturally considered a fruit; whereas, if an item is served with the main course, requires minimal preparation, and may be salted, it is horticulturally considered a vegetable.

Additional guidelines specific to vegetables are as follows.

Beans, Snap

- 10 to 12 pods per entry
- Flattened or rounded pod, characteristic of variety
- 1/4" to 1/2" Stem on each pod

Broccoli

Broccoli

- Three heads of three to four clusters each per entry
- Stem cut squarely for 6" to 7" overall length of head
- Deep blue-green color
- Tight flower buds, free of protruding leaves
- Leaf petioles cut flush with the main stem

Cabbage

- Three heads with three to four wrapper leaves each per entry
- Wrapper leaves only slightly curled
- Stem cut squarely at base of proximal wrapper leaf

Cabbage, Chinese

- Three heads per entry
- Heads 12" to 16" long and 5" to 6" in diameter
- Outer leaves trimmed to give head a tight, cylindrical shape
- Stem cut squarely at base of proximal wrapper leaf

Cantaloupe

- Three fruits per entry
- Fully matured and at prime eating condition
- Rich, sweet fragrance
- Stem scar dry and free from decay

Carrots

- Three bundles of six to eight roots each per entry
- 3/4" to 1 1/2" in diameter
- Smooth and bright orange
- Fresh, green leafy tops if present; otherwise tops cut flush or 1/2" from shoulder
- Absence of rootlets and ripples in flesh

Cauliflower

- Three heads per entry
- Tight, white flower buds free of protruding leaves
- 4" to 6" in diameter
- Leaves neatly trimmed level with top of head
- Stem squarely cut at base of proximal leaf

Cauliflower

Cucumber, Pickling

- Six fruits per entry
- Straight, non-tapered fruit with blunt ends
- ≤2 1/16" in diameter and ≤6" long
- Skin color dark green with no yellow
- Stem squarely cut 1/4" from fruit's shoulder

Cucumber, Slicing

- Three or six fruits per entry
- Straight, non-tapered fruit with rounded ends
- 1 1/2" to 2 1/4" in diameter and 7" to 8" long
- Skin color dark green with no yellow
- Stem squarely cut 1/4" from fruit's shoulder

Eggplant

- Three fruits per entry
- Skin color dark, glossy purple, free of green or white streaks
- Green calyx clean and free of brown edges or patches
- Stem squarely cut 1" to 1 1/2" beyond the calyx's base

Lettuce, Head

- Three heads per entry
- Heads firm to hard with two intact wrapper leaves
- Stem squarely cut to ≤1/4" of proximal wrapper leaf

Lettuce, Leaf

- Three heads per entry
- Compact, young heads trimmed of damaged or discolored leaves
- 5" to 9" in diameter

Mustard Greens

- Three bundles per entry
- Greens 1 1/2" to 2" to point of tie with roots removed
- Flat or curly leaves, characteristic of variety

Okra

- Twelve young, tender pods per entry
- Stem squarely cut 1/2" from pod's shoulder

Peas, English or Southern

- Ten to 12 pods per entry
- Shiny, long, straight, well-filled pods
- 1/4" stem intact

Pepper, Bell

- Six fruits with 3 to 4 lobes each per entry; lobes uniform within each entry
- Stem squarely cut level with fruit's shoulder

Pepper, Hot

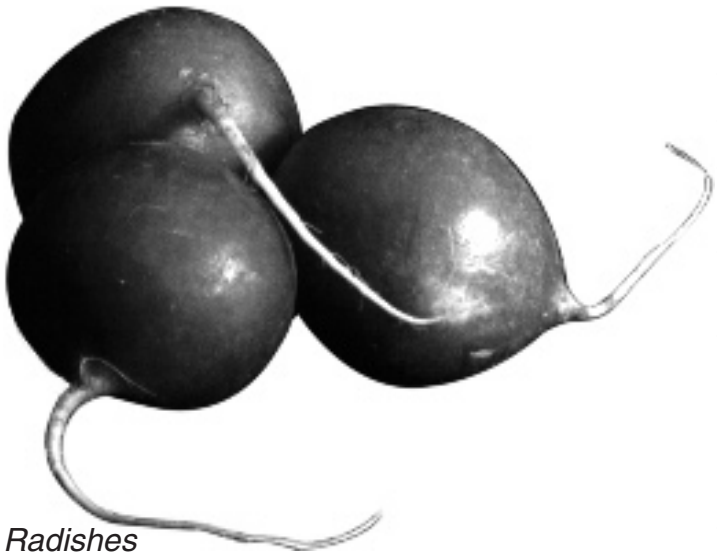
- Six fruits per entry
- Stem squarely cut 1/2" to 1" from fruit's shoulder

Potato, Irish or White

- Six tubers per entry
- Six to 12 oz. tubers 1 7/8" in diameter
- Skin firm, well-cured, and free of debris

Potato, Sweet

- Six tuberous roots per entry
- Eight to 16 oz. tuberous roots 2" to 3" in diameter
- Skin firm, well-cured, and free of debris



Radishes

Radishes

- Three bundles of eight to 10 roots each per entry
- 5/8" to 1" in diameter
- Leafy tops intact, fresh, and green

Spinach

- 3/4 to 1 lb. of plants per entry
- Crown intact with roots removed
- Crisp, dark green leaves

Squash, Acorn

- Six fruits per entry
- ≥3" in diameter
- Dark skin with deep yellow background color
- Stem squarely cut at fruit's shoulder

Squash, Crooked Neck

- Six young fruits per entry
- <6" long

Sweet Corn

- Six ears per entry
- Ears filled to the tip with silks intact
- Outer loose husks removed, but tight, green husks intact
- Peduncle squarely cut at base of proximal husk
- Kernels at prime, milk stage, not doughy or watery

Tomato

- Six fruits per entry
- Smooth, firm, crack-free fruits
- Calyx green and fresh if intact

Turnip Greens

- Three bundles per entry
- Bundles 1 1/2" to 2" long at point of tie with roots removed or intact
- Intact roots not to exceed 1" in diameter

Turnips

- Three bundles of four to five roots each per entry
- Root 2" to 3" in diameter
- Intact tap root

Watermelon

- One fruit per entry
- Smooth, clean, deep green skin with contrasting stripes or gray-green skin, characteristic of variety
- Ripe and ready to eat

Nuts

Commonly there are four or six nuts per judging plate. Nuts may be displayed with the shell intact or removed. If the shell is intact, it should be free of cracks. Number of nuts/pound and kernel percent may accompany each entry. The kernel percent serves as an initial guide of how well-filled the nuts are. Freedom from injury caused by insects, disease, or handling is important, as is freedom from drought and nutritional deficiency.

General guidelines beyond symmetry and uniformity for judging nuts are:

- Good form and size appropriate to the variety
- Color of nuts consistent with variety
- Same number of nuts per entry
- Clean, blemish-free nuts with plump kernels
- Absence of insect, disease, mechanical, or ethylene injury

Additional guidelines specific to pecans are as follows.

Pecans

- Kernel color light tan, not amber or dark tan
- Absence of husk residue on shell
- Absence of black spots and “fuzz” on kernels

References

Css-115 OSU Judging Contest Scoring Program, Animal Science Dept., Oklahoma State University, 101 Animal Science, Stillwater, OK 74078.

Hormel, 1 Hormel Place, Austin, MN 55912.

A Manual for Flower Judging, Pi Alpha Xi-National Honor Society for Floriculture, Landscape Horticulture, and Ornamental Horticulture, Department of Plant and Earth Sciences, University of Wisconsin, River Falls, WI 54002.

Acknowledgments

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The following table may be helpful in practicing judging of pecans.

Cultivar	Avg. Number Nuts/lb.	Avg. Kernel %
* Apache	51	56
Barton	52	55
Burkett	53	54
Caddo	70	55
* Cape Fear	47	55
* Cherokee	48	55
* Cheyenne	55	55
* Chickasaw	52	53
Choctaw	46	58
Colby	62	45
* Comanche	44	52
* Delmas	45	50
* Desirable	39	54
* Elliot	67	53
Giles	72	51
GraKing	40	53
Gratex	48	54
Houma	57	55
* Ideal	66	59
* Imperial	32	56
* John Garner	52	62
Kiowa	46	57
* Mahan	41	55
Maramec	45	58
Mohawk	37	57
* Moore	74	50
Mount	75	52
Oconee	48	56
* Onliwon	61	61
Pawnee	50	58
Peruque	81	59
* San Saba Improved	72	51
* Schley	62	54
Shawnee	57	58
Shoshoni	45	52
Sioux	65	55
Squirrel	54	57
Squirrel's Delight	63	52
Stuart	50	47
* Success	49	50
* Tejas	54	54
* Texas Prolific	56	54
Western	58	55
Wichita	52	60

* Cultivar not typically grown in Oklahoma.

Notes

Notes

Oklahoma 4-H Is. . .

Oklahoma 4-H is a total youth development program designed to educate boys and girls, ages 9 to 19, about things in which they're interested. Members learn life skills be actually doing project work under volunteer guidance. In addition, 4-H'ers are a part of a club in which they participate in leadership and community service activities and have fun. It's a program that involves the whole family. 4-H is a part of the Oklahoma State University Cooperative Extension Service, which provides current subject matter from the Division of Agriculture and College of Home Economics. 4-H is making the best better.

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