# Judging Manual FOR THE J. BENTON STOREY Undergraduate Judging CONTEST 

Southern Region, American Society for Horticultural Science Association of Collegiate Branches



## General Rules

1. All contestants must be currently enrolled in an undergraduate degree program.
2. All contestants must present a paid receipt for the SR-ASHS meeting in which the contest is associated before entering the contest.
3. Teams consist of 4 contestants.
4. A maximum of 1 team may compete per club.
5. Only teams from clubs which have paid dues to SR-ASHS ACB may compete.
6. Up to 3 students may compete as individuals from clubs which have not paid SR-ASHS ACB dues.
7. An unlimited number of individuals may compete in addition to teams from clubs which have paid SR-ASHS ACB dues.
8. If more than 70 students wish to participate, the contest will be run twice-once at the scheduled time, and a second time immediately after completion of the first.
9. No flash photography during the contest. Pictures may be taken during the contest without flash or after the contest with flash.
10. No contestant may touch samples.
11. All Judging Cards must include the contestant's identification and the class identification for which the card is being submitted. Each contestant must provide this information directly on each judging card in the appropriately marked spaces. Any card received that is missing either the contestant's identification or class identification will receive a score of " 0 ."

General Judging Guidelines

adapted from Maxson, J. Horticulture Judging
Oklahoma State University, 4-H Members Guide

1. A horticulture judging class consists of 4 specimens or plates lettered A through D, which the member places in order of quality, from left to right.
2. When learning to judge you should develop a method to use for selecting your placings. Here is one procedure you might use:
a. Back away from the table and look at all the specimens at once. Compare their overall appearance.
b. Look at each specimen individually. Notice for good and bad points about each specimen.
c. Pick out the one you think is best and write its letter on your card. For example: Let's say C looked like the best of the four. Write C on your card.
d. Select the specimen you think is poorest of the 4 and write that letter down about 1 inch from the $1^{\text {st }}$ letter. For example: Let's say A was the poorest specimen. C A
e. Next you have to decide which of the remaining specimens are $2^{\text {nd }}$ and $3^{\text {rd }}$ best. For example: Let's say B is better than D. Write B next to C and then write D next. Your placings would be: C B D A
f. Look over the specimen closely to make sure you have them placed like you want them.
3. 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 criterion 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. (Needham, 1996).
4. Special note on insect pests and diseases

The presence of or damage from insect pests and diseases constitutes a serious fault when judging any crop. The presence of one or even a few insects should not be justification for placing the entry automatically in last place. Live insects move about and may not be apparent to all judges. Insect injury is permanent injury and should be strongly faulted. Either presence of or damage from disease organisms should be strongly faulted (Pi Alpha Xi, 1987).
5. Five factors to consider when judging ornamentals are:
a. Cultural Perfection: refers to quality, uniform growth, and development; strong stems, healthy foliage, and/or fresh, well formed flowers; freedom from bruise, blemish, nutritional deficiency, insect or disease damage. Pots or containers should not be rusty or rotten.
b. Uniformity of Foliage and Flower: leaves and flowers well developed and distributed over or through the plant. No gaps in flower mass or long bare spaces on stems. Pot plants or shrubs should be multibranched or stemmed with foliage uniformly covering the stems.
c. Color: uniform, intense, clear color of flower and foliage; true to variety.
d. Size of Plant: deduct points for oversized or undersized development in relation to pot size.
e. Flower size or Plant form: deduct points for oversized or undersized flowers or poor plant habit ( one sidedness, etc.) in pot.
6. Cultural perfection is the most important factor in judging ornamentals. This is the most important factor in determining quality or saleability of the plant.
7. Five quality factors to consider when judging food crops are:
a. Market Condition: Refers to firmness, freedom from sprouts or regrowth, shriveling. Also freedom from insect, disease and mechanical damage.
b. Uniformity: Same size, shape, color, degree of maturity, etc.
c. Color: The most acceptable commercial color shall be ranked highest. Color should be bright and lively.
d. Size: The most acceptable commercial size for the particular fruit or vegetable will be considered ideal.
e. Form: Typical form for the particular variety of fruit or vegetable will be considered ideal.
8. Condition is the most important factor in judging food crops. Condition determines quality and how well the produce will keep.
9. Quality refers to the market condition of the specimen being judged. Is it the kind of food crop or ornamental that you would buy yourself?
10. Reasons for placing a plate of apples low are:
a. Bruises, cuts or other mechanical injury.
b. Color variation.
c. Apples not uniform.
d. Stem removed from apple.
e. Evidence of insect damage.
11. Things that would cause you to place a plate of onions low are:
a. Softness at the stem.
b. Cuts or other mechanical damage.
c. Outer skin peeled off.
d. Mud or dirt.
e. Some of the onions too small or too large.
12. Things that would cause cut flowers to be placed high are:
a. Flowers have good, even color.
b. Foliage has crisp, fresh look.
c. No insect damage to flower or foliage.
d. All flowers open the same amount.
e. Flowers have fresh appearance; not wilted.
13. Regardless of commodity, presence of an "off specimen" (different cultivar, prior year's nut group, etc.) will down grade the sampler.

## WOODY ORNAMENTAL CONTEST (100 POINTS)

Contestants will be asked to order five classes of woody ornamentals, with four entries of each class, according to quality. Each class is worth 10 points ( 50 points total). The classes will be selected from the following groups:

- Trees
- Palms, Palm-Like Plants, Succulents
- Flowering Shrubs
- Shrubs
- Vines \& Groundcovers

The contestants will also be asked to identify 20 plant specimens from the provided Trees, Shrubs and Ornamentals Plant List at a rate of 2.5 points per correctly identified plant ( 50 points total). Each specimen, allotted its own number, may consist of any part of the plant. During the contest, a complete list of scientific names, including correct and incorrect answers, will be provided. Contestants will place the specimen number by the correct scientific name on the answer sheet. This same procedure will also be used for the greenhouse foliage and floral crops phase of the contest.

## Trees, Shrubs, and Ornamentals

| Glossy Abelia | Abelia x grandiflora |
| :--- | :--- |
| Boxelder | Acer negundo |
| Japanese Maple | Acer palmatum |
| Red Maple | Acer rubrum |
| Silver Maple | Acer saccharinum |
| Sugar Maple | Acer saccharum |
| Carpet Bugleweed | Ajuga reptans |
| Mimosa | Albizia julibrissin |
| Japanese Barberry | Berberis thunbergii |
| River Birch | Betula nigra |
| Butterfly Bush | Buddleia davidii |
| Common Boxwood | Buxus sempervirens |
| Japanese Camellia | Camellia japonica |
| Sasanqua Camellia | Camellia sasanqua |
| Deodar Cedar | Cedrus deodara |
| Atlantic Cedar | Cedrus libani ssp. atlantica |
| Eastern Redbud | Cercis canadensis |
| Flowering Quince | Chaenomeles speciosa |
| White Flowering Dogwood | Cornus florida |
| Smoke Tree | Cotinus coggygria |
| Japanese Holly Fern | Cyrtomium falcatum |
| Russian Olive | Elaeagnus angustifolia |
| Thorny Elaeagnus | Elaeagnus punguns |
| Winged Burning Bush | Euonymus alatus |
| Japanese Fatsia | Fatsia japonica |

Forsythia
Green Ash
Gardenia
Maidenhair Tree
Thornless Honey Locust
Rose of Sharon
Oakleaf Hydrangea
Chinese Holly
American Holly
Yaupon Holly
Japanese Garden Juniper
Eastern Redcedar
Golden Rain-Tree
Crape Myrtle
Sweet Gum
Tulip Tree
Lily Turf
Trumpet Honeysuckle
Southern Magnolia
Saucer Magnolia
Japanese Flowering Crabapple
Southern Waxmyrtle
Heavenly Bamboo
Oleander
Mock Orange
Fraser's Photinia
Austrian Pine
Scotch Pine
Japenese Black Pine
Chinese Pistache
Japanese Pittosporum
American Sycamore
Oriental Arborvitae
Dwarf Flowering Almond
Firethorn
Callery Pear
Saw-tooth Oak
Pin Oak
Shumard Oak
Post Oak
Live Oak
Indian Hawthorn
Azalea
Corkscrew Willow
Japanese Spiraea
Common Lilac
Bald Cypress
Japanese Cleyera
Litleleaf Linden
Sa

Forsythia sp.
Fraxinus pennsylvanica
Gardenia augusta
Ginkgo biloba
Gleditsia triacanthos f. inermis
Hibiscus syriacus
Hydrangea quercifolia
llex cornuta
Ilex opaca
Ilex vomitoria
Juniperus procumbens
Juniperus virginiana
Koelreuteria paniculata
Lagerstroemia indica
Liquidambar styraciflua
Liriodendron tulipifera
Liriope muscari
Lonicera sempervirens
Magnolia grandiflora
Magnolia x soulangiana
Malus floribunda
Myrica cerifera
Nandina domestica
Nerium oleander
Philadelphus cultivars
Photinia x fraseri
Pinus nigra
Pinus sylvestris
Pinus thunbergii
Pistacia chinensis
Pittosporum tobira
Platanus occindentalis
Platycladus orientalis
Prunus glandulosa
Pyracantha cultivars
Pyrus calleryana
Quercus acutissima
Quercus palustris
Quercus shumardii
Quercus stellata
Quercus virginiana
Raphiolepis umbellata
Rhododendron cultivars
Salix matsudana 'Tortuosa'
Spiraea japonica
Syringa vulgaris
Taxodium distichum
Ternstroemia gymnanthera
Tilia cordata

American Elm
Lacebark Elm
Japanese Viburnum
Chaste Tree
Chinese Wisteria
Adam's Needle Yucca

Ulmus americana
Ulmus parvifolia
Virburnum japonicum
Vitex agnus-castus
Wisteria sinesis
Yucca filamentosa

## GREENHOUSE FOLIAGE AND FLORAL CROPS CONTEST (100 POINTS)

Contestants will be asked to place five classes, with four entries for each class, of potted foliage and/or flower arrangements according to quality. The Floral List contains the possible specimens to be used. Each class is worth 10 points ( 50 points total). On the floral arrangements look for clean cut mechanics, balance, uniformity, and in general pleasing to the eye.

Following the same procedure for identification of the woody ornamental plants, the contestant will be asked to identify twenty specimens from the provided Floral List. The correctly identified specimens will be awarded 2.5 points ( 50 points total).

## JUDGING OF FLORICULTURE CROPS

(Pi Alpha Xi, 1987)
The judging of floriculture crops is horticultural perfection carried to its logical termination. The skilled judge is concerned with sorting floral materials into groups according to previously determined standards. Judging is the evaluation of grading consistency and an assessment of quality. Judges must be familiar with the standards of quality for each floriculture crop. Where quality standards are lacking, the judge's familiarity with the crop and its cultural requirements should be such as to permit making valid judgments on quality.

In setting up the standards of quality which follow, an attempt has been made to reconcile perfection with commercial acceptability. Accordingly, those faults which reduce commercial desirability whether due to cultural or inherent causes, have been penalized most severely, A table of faults, in which each fault has been assigned a numerical value according to its severity, has been included for each plant material. It should be understood that these placings are on a relative basis only.

## Scale of Points of Cut Flowers (Multiple specimen entry)

| Condition | 25 (Uniformity 10, freedom of bruises and blemish 5, substance 10) |
| :--- | :--- |
| Form | 20 (Uniformity 5, maturity 5, correct shape 5, regular petalage 5) |
| Stem \& Foliage |  <br> proportion 5) |
| Color | 20 (Uniformity 5, intensity 5, clarity 5, trueness to variety 5) |

Size
15 (Uniformity 5, deduct points in relation to development \& condition of oversized or undersize 10)

NOTE: Uniformity counts $\mathbf{3 0}$ points out of $\mathbf{1 0 0}$.
This scale makes allowance for uniformity of condition, form etc., for the group as a whole when considering each of these qualities of the individual specimens.

## Scale of Points for Flowering Pot Plants

Condition 20 (Uniformity 10, freedom from bruise and blemish 5, substance 5)

Form
Floriferous
Plant Size
Color
Bloom Size

20 (Uniformity 5, maturity 5, correct shape 5, regular petalage 5)
20 (Uniformity 10, distribution around plant 5, ratio of open flowers to buds 5)
20 (Uniformity 10, deduct points in relation to development \& condition of oversized or undersize 10)
10 (Uniformity 5, intensity and clarity 5)
10 (Uniformity and proportion 5, trueness to variety 5)
NOTE: Uniformity counts 50 points out of 100.
This scale makes allowance for uniformity of condition, form etc., for the plant as a whole when considering each of these qualities of the individual stems or flowers.

## Scale of Points for Foliage Plants

Foliage 35 (Uniform progression of leaf sizes 10, leaf shapes 10, strong growth 10, symmetrical placement of leaves 5)
Color 25 (Bright vivid green or uniform variegation in variegated forms 10, color typical of type 10, overall attractive appearance 5)
Plant Form 25 (Full compact, bushy growth with short internodes 10, uniformity of size \& development of multiple plants in a container 10 , symmetry 5 )
Size 15 (Size in proper proportion to container 15)
NOTE: Uniformity counts 20 points out of 100.
This scale makes allowance for uniformity of condition, form etc., for the plant as a whole when considering each of these qualities of the individual specimen

## Potted Plants and Cut Flowers

Yarrow
Silver Vase Bromeliad
Varigated Chinese Evergreen
Century Plant
Peruvian Lily
Flamingo Flower
Snapdragon

Achillea filipendulina
Aechmea fasciata
Agalonema commutatum
Agave americana
Alstroemeria cultivars
Anthurium cultivars
Antirrhinum majus
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| Norfolk Island Pine | Araucaria heterophylla |
| :--- | :--- |
| Common Wormwood | Artemisia absinthium |
| Ming Asparagus Fern | Asparagus retrofractus |
| Angel Wing Begonia | Begonia coccinea |
| Spider Flower | Cleome spinosa |
| Kaffir Lily | Clivia miniata |
| Larkspur | Consolida ambigua |
| Hawaiian Ti Plant | Cordyline terminalis |
| Coreopsis; Tickseed | Coreopsis grandiflora |
| Jade Plant | Crassula ovata |
| Florist Mum | Dendranthema x grandiflorum |
| Dendrobium Orchid | Dendrobium grexes \& cultivars |
| Carnation | Dianthus caryophyllus |
| Spotted Dumbcane | Dieffenbachia maculata |
| Corr Plant | Dracaena fragrans |
| Purple Coneflower | Echinacea purpurea |
| Poinsettia | Euphorbia pulcherrima |
| Weeping Fig; Benjamin Tree | Ficus benjamina |
| Fiddle-Leaf Fig | Ficus lyrata |
| Blanket Flower | Gaillardia aristata |
| Gerber Daisy | Gerbera jamesonii |
| Gladiolus | Gladiolus cultivars |
| Baby's Breath | Gypsophila paniculata |
| English Ivy | Hedra helix cv. |
| Common Sunflower | Helianthus annuus |
| Day Lily | Hemerocallis cultivars |
| Chinese Hibiscus | Hibiscus rosa-sinesis |
| Amaryllis | Hippeastrum cultivars |
| German Iris | Iris x germanica |
| Florists' Kalanchoe | Kalanchoe blossfeldiana |
| Shasta Daisy | Leucanthemum x superbum |
| Liatris; Gay Feather | Liatris spicata |
| Easter Lily | Lilium longiflorum |
| Statice; Sea Lavender | Limonium sinuatum |
| Prayer Plant | Maranta leuconeura |
| Bee Balm | Monarda didyma |
| Split-Leaf Philodendron | Monstera deliciosa |
| Garden Peony | Paeonia lactiflora |
| Egyptian Star-Cluster | Pentas lanceolata |
| Peperomia | Peperomia obtusifolia speciosa |
| Heartleaf Philodendron | Philodendron scandens subsp. oxycardium |
| Aluminum Plant | Pilea cadierei |
| Swedish Ivy | Plectranthus verticillatus |
| Ming Aralia | Polyscias fruticosa |
| Leatherleaf Fern | Rumohra adiantiformis |
| Green Santolina | Santolina rosmarinifolia |
| African Violet | Hawaiian Schefflera |
| Florists' Gloxinia | Scheralia ionantha |
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Peace Lily
Bird of Paradise
Silvery Wandering Jew
Spotted Calla Lily
Zinnia
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Spathiphyllium cultivars
Strelitzia reginae
Tradescantia zebrina
Zantedeschia albomaculata
Zinnia elegans cv.

## VEGETABLE CROPS CONTEST (100 points)

Vegetable crops, in the stage and condition usually found in the market will be arranged in classes where they will be judged according to quality. Ten classes will be judged and each class will consist of four sets of entries. The four entries should be ordered according to quality. Each class is worth 10 points ( 100 points total). The quality of the vegetables and fruit will be based upon Table 1 criteria for a good exhibit. There are also some supplementary pages in the following pages on choosing the "first place" fruit, vegetable, and nut. The vegetables will be chosen from the following list:

| 1. | Beans, Snap |
| :--- | :--- |
| 2. | Broccoli |
| 3. | Cabbage |
| 4. | Cantaloupe |
| 5. | Carrots |
| 6. | Cauliflower |
| 7. | Cucumber, Pickling |
| 8. | Cucumber, Slicing |
| 9. | Eggplant |
| 10. | Lettuce, Head |
| 11. | Lettuce, Leaf |
| 12. | Mustard Greens |
| 13. | Okra |
| 14. | Onion |
| 15. | Peas, English |
| 16. | Pepper, Bell |
| 17. | Pepper, Jalapeno |
| 18. | Potato, Red |
| 19. | Potato, White or Irish |
| 20. | Radish |
| 21. | Southernpeas |
| 22. | Spinach |
| 23. | Squash, Crookneck |
| 24. | Sweet Corn |
| 25. | Sweetpotato |
| 26. | Tomato |
| 27. | Turnip |
| 28. | Turnip Greens |
| 29. | Watermelon |
|  |  |

## Criteria for a Good Exhibit

The following outline establishes the criteria for a proper vegetable exhibit. This information may prove helpful in judging during the contest.
A. QUALITY

Marketable Size
Characteristic Color
Trueness-to-type or Shape
Stage of Development of Maturity
B. CONDITION

Cleanliness
Proper Trimming
Freshness
C. FREEDOM FROM INJURY

Mechanical
Pests
D. UNIFORMITY

Shape
Size
Color
Type of Variety
Stage of Maturity

## Suggested Specifications for Certain Vegetables

Beans, Snap 4 to 6 pods per plate - Green snap beans are prepared and displayed like wax beans. There are flat pod and round pod varieties. All pods must be the same length with at least $1 / 4$ to $1 / 2$ " of stem present on each pod. Insect damage, disease, and poor trimming are faults.

Broccoli 1 bunch of 3 to 4 clusters each per plate - Broccoli heads should be uniform and properly matured. Tight buds, free of protruding leaves, are desirable. Large clusters or heads of with deep blue-green color and tight buds are preferred. The stem of each head should be cut straight across to give an over-all length of 6 to 7 ". Cut leaf petioles flush with the surface of the main stem.

Cabbage $\quad 2$ heads per plate - Heads must be uniform in symmetry, size, and firmness. Firm heads with 3 to 4 wrapper leaves that curl just slightly at the edge are best. Stem must be cleanly cut at the exact base of the last wrapper leaf. Yellow, wilted, or bruised leaves are not permitted.

Cantaloupe

| Carrots | 1 standard bunch per plate - There should be 6 to 8 roots, $3 / 4$ to $1 \frac{1}{2}$ " in diameter, per bunch. The roots must be uniform in length and diameter, smooth and bright orange. Rootlets and ripples in the flesh are undesirable. Tops must have good color and be free of insect and disease damage. Carrots with cut tops are a separate class. Cut tops $1 / 2$ from shoulder or flush with shoulder. Processing varieties should be $1 \frac{1}{2 \prime \prime}$ to $2 \frac{1}{2}$ " in diameter. |
| :---: | :---: |
| Cauliflower | 2 marketable heads per plate - Heads should be uniform in size and maturity with tight, white buds free of protruding leaves. Heads should be 4 to 6 " in diameter. Leaves should be nearly trimmed level with the top surface of the head. The base should be trimmed cleanly. Yellowed buds and discolored or injured leaves are faults. |

Corn, Sweet 3 marketable ears per plate - Ears should be well filled out to the tip with outer loose husks removed, butts trimmed cleanly, and silk intact. Tight, dark green husks are desirable. Kernels must be at prime young milk stage, not doughy or watery.

## Cucumber, Pickling

## Cucumber, Slicing

Eggplant 2 marketable fruits per plate - The green calyx should be clean and free of brown edges or patches. Trim stem 1 to $11 / 2^{\prime \prime}$ beyond the calyx base. Fruit must be free of green or white streaking.

## Lettuce, Head

2 marketable heads per plate - Heads should be uniform in size, color, and maturity. Heads should be moderately firm to hard with two intact wrapper leaves. Trim butt to within $1 / 8$ " to $1 / 4$ " of bottom leaf.

Lettuce, Leaf 2 marketable heads per plate - Heads should be uniform in size, color, and maturity. Trim each head to remove old, discolored, and damaged leaves. Select compact, young heads. Heads vary from 5" to 9" in diameter, depending on variety.

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## Mustard Greens

Peas, English

Pepper, Bell

Potato, Irish

Radish, bunched

Southernpeas

Spinach

## Squash, <br> Crookneck

Sweetpotato

Okra 4 pods per plate - Pods should be uniform in diameter, length, color, and should be young and tender, not over mature and leathery. Pods may have young seeds, but must be tender. Cut stems $1 / 2$ " from pod shoulder.

Onions $\quad 4$ bulbs per plate - Uniform and true to cultivar. Bulb shape should be round and devoid of cuts or signs of decay on either end. The bulbs should have a single center and not contain doubles or triples. Color should be uniform.
1 standard bunch per plate - Greens should measure 112 " to 2 " at point of tie with roots removed. They can be flat or curly mustard. Neatly trimmed, clean, crisp leaves are desirable.

4 marketable pods per plate - Pods should be true to color, shiny, long, straight, and well filled. $1 / 4$ " of stem should be left on each pod.

3 marketable fruits per plate - All fruits should have the same number of lobes (3 or 4). Stems should be cut cleanly and level with shoulder of fruit. Size, shape, and color of fruit should be uniform.

3 marketable tubers per plate - Tubers should be uniform in size, shape, and maturity. Size range should be 6 to 12 ounces, with minimum tuber diameter $17 / 8$ ". Skin must be firm, well-cured, not peeling and free of soil.

3 standard bunches per plate - Radishes should be $5 / 8$ " to 1 " in diameter with tops on. Each bunch should contain 8 to 10 radishes. Tops should be tied in a neat bunch. Leaves should be fresh, green, and free of damage.

4 marketable pods per plate - Pods should be true to color, shiny, long, straight, and well filled. $1 / 4$ " of stem should be left on each pod.
$3 / 4$ to 1 pound of leaves per plate - Crown should be intact and roots removed. Leaves should be crisp, dark green, clean and free of damage from insects, disease or mishandling.

2 marketable fruits under 6" in length per plate - Fruits must be true to variety and uniform in size, shape, and color. Fruits must be picked young when skin is very tender and should be free of scratches and bruises.
3 marketable roots per plate - Roots should be uniform in size, shape, and color. Roots should weigh 8 to 16 ounces and be 2" to 3 " in diameter. Skin must be firm, well-cured, and clean.

3 marketable fruits per plate - Fruits may be either green or red. All fruits must be uniform in every way. Firm, crack-free, smooth fruits are desirable. If calyx is left intact, it must be fresh and green. The green calyx adds to the fruit appearance only if it is green and fresh.

Revised: 12 Sept 2005

Turnip Greens 1 standard bunch per plate - Bunches should be $1 \not 1 / 2^{\prime \prime}$ to 2 " at point of tie, well trimmed, with roots removed or intact. With roots, they should not exceed 1 " in diameter. Leaves must be free of damage from insects, disease, or mishandling.

Turnips $\quad 1$ standard bunch per plate - Each bunch consists of four to five roots with each root 2" to 3" in diameter. The tap root is left intact. Roots must be clean and free of insect damage.

Watermelon 1 marketable fruit per plate - Ice box types weigh 4 to 8 pounds. Large types weigh 15 to 40 to 50 pounds. Deep green skin, highly colored contrasting stripes, or even gray-green skin is desirable depending on the variety. Melon must be ready to eat, and be smooth and clean.

## FRUIT AND NUT CROPS CONTEST (100 POINTS)

The fruit and nut crops will be judged by the contestant according to the quality found at the stage and condition usually found in the market. There will be eight to ten classes of four entries each of fruit and/or 2 classes of nuts. The four entries should be ordered on the score cards according to quality, each class being worth 10 points (100 points).

## Fruit Judging

The fruit division will consist entirely of arranging the 4 entries in each class according to quality. The process is not unlike selecting fruit at the market which you are willing to pay for and consume in your home. Common sense goes a long way, but there are refinements in the selection process which are utilized by fruit judging teams.

The different species of fruit are denoted by common names such as apples, bananas, grapefruit, or peaches. Within each species of fruit there are distinct cultivars. For example, grapefruit may be 'Ruby Red', 'Star Ruby', 'Duncan', 'Marsh White', and several others. These grapefruit cultivars differ in blush in the peel, flesh color, and number of seed. The classes in the contest will be labeled according to the cultivar where possible. Fruit purchased on the open market for the contest may not in all cases be identifiable by cultivar the show superintendent will do his/her best to see that cultivar names are on all classes.

All specimens in an entry must be uniform in size, shape, color, and maturity. The best entry in class should be of prime eating quality. In the case of bananas, the solid uniform yellow color of the peel indicated prime eating quality. Those that are green in color are not edible because of a high starch content and those that have black specks on the peel are overripe and would be graded down. First place fruit should not be scratched or bruised. Freedom from insect and disease damage is important, as is freedom from drought and nutrient deficiency.

## Nut Judging

The nut section of the division will be to place 4 entries of each of 2 cultivars according to their quality.

Kernel criteria include:
\#1 kernel - bright colored, full bodied, solid (Fancy Product)
\#2 kernel - light weight, bright in color; full bodied, slightly off-color (Choice Product)
\#3 kernel - Amber colored, either full bodied or light weight (Standard Amber, Cutting Stock)

Defects in kernel or shell such as insect damage, malformation, darkening, fuzziness, or cracks reduce the grade of nuts.

The fruit and nut crops will be chosen from the following list:

| 1. Almonds | 15. Oranges |
| :--- | :--- |
| 2. Apples | 16. Peaches |
| 3. Apricots | 17. Pears |
| 4. Avocados | 18. Pecans |
| 5. Bananas | 19. Pineapples |
| 6. Blackberries | 20. Pistachios |
| 7. Cherries, sweet | 21. Plums, European |
| 8. Grapefruit | 22. Plums, Japanese |
| 9. Grapes, seedless | 23. Raspberries |
| 10. Grapes, seedy | 24. Strawberries |
| 11. Lemons | 25. Tangerines |
| 12. Limes | 26. Tangelos |
| 13. Mangos | 27. Tangors |
| 14. Nectarines | 28. Walnuts |

## SUGGESTED SPECIFICATIONS FOR FIRST PLACE FRUITS

It is permissible to have more than one class of each species if each class is of a different cultivar.

## Almonds

Twenty nuts per plate. Kernels from 10 nuts displayed in small side plate.

## Apples

Four fruits of uniform size per plate. Peel color and shape should be typical for cultivar. Peel should be devoid of russet.

## Apricots

Four fruits per plate. Fruit should be uniform and ground color should be bright yellow or orange. Fruit should not have deep sutures.

## Avocados

Four fruits per plate - Peel color and size is dependent on cultivar. The fruit should be uniform in size and shape. Shape should be pyriform to oblong to round. Texture should be firm since avocados will soften during the climacteric rise in respiration a few days after purchase. Soft fruit are difficult to handle.

## Bananas

One hand per plate with each hand containing a minimum of six fingers (fruits). Peel of fingers should be solid yellow in color. All fingers should be attached to base that forms the hand so that no fruit has an exposed end resulting from being torn from base.

## Blackberries

One pint of fruit per plate. Color should be black with no red drupelets in evidence. All drupelets that compose the fruit should be intact with none broken from being over ripe or rough handling. Large fruit size is desirable. Calyx should not be attached to fruit.

## Blueberries

One pint of fruit per plate. Color should be dark blue to black with a waxy bloom still intact. Red fruit should be avoided. All stems should have been removed from fruit. Large uniform fruit up to the diameter of a dime is desirable.

## Cherries, sweet

Six fruit per plate. Fruit should be bright red with green stems still attached.

## Grapefruit

Four fruits per plate - Peel color should be yellow with red blush if the cultivar is red fleshed. There should be no traces of green in the peel. Large size is desirable and shape should be flattened (diameter from stem end to blossom end should be less than the cross sectional diameter). Peel texture should be fine rather than coarse because fine peel texture is often correlated with a thin peel and higher juice content.

## Grapes

Minimum of one large bunch per plate. Color should be consistent with cultivar. 'Thompson Seedless' should be light green to white and 'Perlett' should be deep red. Berries in the cluster should be spaced well enough so that they are not compact enough to be compressed into anything other than their characteristic oval or ovate shape. There should be no dried, broken, or rotten berries. The stem should be fresh and pliable and free of desiccation.

## Lemon

Four fruits per plate - Size should be about the size of a large egg with stem to blossom end diameter greater than cross sectional diameter. Peel color should be yellow and texture fine. The green "button" on the stem end should be intact. The fruit should be firm.

## Limes

Four fruits per plate - Uniform in peel color and about 1" in diameter (Tahiti lines may be larger). Round in shape and fine in peel texture.

## Mangos

Four fruits per plate - Optimum weight $2^{1 ⁄ 2} 2 \mathrm{lbs}$. each. Colored according to cultivar with characteristic sinus and beak.

## Nectarines

Four fruits per plate - Similar to the peach in every way except the peel should resemble the waxy texture of the plum more than the fuzzy texture of the peach. The shape may be round to slightly oblong but devoid of a beak. The skin color should be primarily red with either yellow or white ground color.

## Oranges

Four fruits per plate - Large size is an asset. Shape should be round and peel color orange with no traces of green. Peel texture should be fine indicating a thin peel and high juice content. Navel oranges should have the characteristic navel on the blossom end but other cultivars should have a very small to nonexistent aureole on the blossom end. The "button" should be attached on the stem end.

## Peaches

Four fruits per plate - Large size is an asset with 2.5 to 3.0 inch diameters most appropriate. Shape should be round to slightly beaked on blossom end. The pits should not be split which is apparent from a hole at the point of the stem attachment. The suture should be inconspicuous and devoid of soft spots. The peel should be red with yellow or white ground color depending on the cultivar. All yellow fleshed cultivars should have a yellow ground color that indicates the fruit to be mature. The fruit should not have an excessive fuzz cover. Highly pubescent cultivars should have been defuzzed. Fruit should have the characteristic sweet peach aroma.

## Pears

Four fruits per plate - Pyriform in shape to round for a few cultivars. Green in color with slight yellow ground color. A few cultivars are red. The peel should be devoid of russet and other blemishes. Fruit should be firm indicating the dessert types that the starch content is still high and will convert to sugar during the climacteric rise in respiration at which time they will become soft.

## Pecans

20 nuts per plate with number per pound and \% kernel data shown. Kernels from 10 nuts displayed in small side plate. Kernels should be bright in color.

## Pineapple

Two fruits per plate - This multiple fruit made up of fleshy flower parts that are fused together is often immature in the US market. The fruit should be completely yellow to insure the highest sugar content. Pineapples must be harvested in the yellow stage for the starch does not convert to sugar in the post harvest state as do pears. The optimum shape is cylindrical.

## Pistachio

30 nuts per plate - Endocarp should be split with kernels visible. Kernel should be free of fungi and other contaminants.

## Plums, European

Four fruits per plate - Shape should be oval to slightly necked on the stem end. Color is dark blue to black. Texture should remain more firm than Japanese type even at time of consumption as a fresh fruit. These fruit are also known as prunes but are exhibited fresh in this contest. Waxy peel bloom should have been removed by shining to a high gloss.

## Plums, Japanese

Four fruits per plate - Shape should be round as in 'Santa Rose' to slightly beaked as in 'Morris'. Size should be a minimum of 1.5 inches in diameter with larger sized desirable. Skin color may range from green to dark red depending on cultivar. Texture should be firm because soft Japanese type plums are usually over ripe. Waxy peel should have been removed by shining to a high gloss.

## Raspberries

One half pint per plate. Fruit should be devoid of receptacle leaving a hollow space between a drupelet cup. Color of drupelets should be red to black depending on cultivar.

## Strawberries

One pint per plate. Fruit should be large and uniform in red color. Calyx should be intact and fresh in appearance on every fruit. Shape should be conical to slightly flattened depending on cultivar. There should be no sign of deterioration evidenced by water soaked areas on the surface of the fleshy receptacle that forms this fruit.

## Tangerines

Four fruits per plate - Shape should be flattened with diameter from stem end to blossom end less that the cross sectional diameter. Color of peel is orange and may appear to be slightly "loose" since this is a slip skin fruit. "Button" should be in place and stem should have been cut flush to the "button". The skin must not be plugged on the stem end or elsewhere.

## Tangelos

Four fruits per plate - Similar to tangerines in most respects except they may be more oblong and necked in shape. The color may be slightly more yellow than tangerines since tangelos are hybrids between tangerines and grapefruit. The peel is tighter.

## Tangors

Four fruits per plate - The most popular tangerine x orange hybrid is allegedly the so-called 'Temple' orange which is orange in color and almost round in shape.

## Walnuts

10 nuts per plate. Kernels from 5 nuts displayed in small side plate.

## Suggested Resource Materials

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