

Florida 4-H Horticulture Identification and Judging: Contest Rules and Glossary¹

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This publication provides guidelines and information for Florida 4H members and Master Gardeners interested in horticulture and/or in participating in state contests held annually at 4-H Congress or the Master Gardener Annual Conference.

These contests provide the opportunity to study horticultural plants and their parts and products. Participation in the contest should result in improved abilities to recognize, use, grow, and appreciate the offerings of horticulture.

Horticulture is the art and science of growing fruits and nuts, vegetables, flowers and foliage plants and ornamental plants. Horticulture is a profession, a vocation, a hobby, an industry, and a way of life for millions of people. Horticulture is very important to Florida's economy and is vital to everyone's health and well-being.

Eligibility

- 1. 4-H youth participants must comply with all 4-H rules and regulations governing county, district and state events. For more information and regulations regarding 4-H eligibility, see the 4-H Program Handbook at http://florida4h.org/staff/Files/4HHandbook.pdf.
- 2. 4-H contestants are urged to participate first at the local and county level, but district elimination is not required in the state contests. Each county 4-H program may enter

- one 4-H senior team in the competition. Junior teams may participate to gain experience. Only one Master Gardener team can compete from each county, but individual Master Gardeners can participate for practice or as competitors.
- 3. A 4-H or Master Gardener team consists of three to four members (only the top three scores are combined for a total team score). Team members also compete independently.
- 4. Individual or team state winners are not eligible to compete in future state 4-H Horticulture ID/Judging events. However, Master Gardener state winners (teams or individuals) may compete year after year.

Identification

The identification section of the contest includes four groups of plants: fruits and nuts, vegetables, flowers and foliage plants and ornamental plants (woody plants, vines, groundcovers and ornamental grasses). Each group contains 50 plants. Participants are responsible for knowing all 200 plants although only 35 specimens from each group (140 total) will be included in the contest.

The Florida Plant Identification website contains descriptions and color images of all the 200 plants, as well as "self-tests" for each group of plants: http://gardeningsolutions. ifas.ufl.edu/mastergardener/outreach/plant_id/ Botanical terms are linked to an on-line glossary; the glossary is also available at the end of this document.

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Specimens for identification may be the plant, plant parts, or plant products. There are no duplications on the contest. Four score sheets are used for the identification section - one for each group. Each score sheet lists the plants in that group (see score sheets below). In the blank provided on the score sheet, the contestant must write the appropriate specimen number for each plant. Each item counts five points for a total possible score of 700 on the identification section.

Judging

The judging section of the contest consists of eight classes of horticultural plants or produce:

- 1. Two classes of fruits.
- 2. Two classes of vegetables.
- 3. Two classes of flowers and/or foliage plants.
- 4. Two classes of ornamental plants (woody plants vines, groundcovers and ornamental grasses).

Each class consists of four individual or grouped specimens, lettered ABCD from left to right. Mentally arrange the specimens in order of highest to lowest overall quality and mark them in the appropriate space on the judging score sheet in the column labeled "Placing."

Judging counts for 200 points (25 points for each of the eight classes). Correct selection of the best group or specimen within a class is worth 76 percent of the total score for that class regardless of how the other three groups are ranked. By correctly placing the best and worst groups (specimens) within a class, the contestant earns 88 percent of the possible points for that class; 100 percent is considered correct placing.

The final score is determined by dividing the sum total of percentages by four to obtain the total points. For example, if all eight classes are placed correctly, the scoring would be as follows:

 $100\% \times 8 = 800 \div 4 = 200 \text{ points scored.}$

See Table 5 for an example of a Judging Sheet/Score Card.

Judging Fruits and Vegetables

General guidelines are presented here to help you better recognize high-quality fruits and vegetables and rank each class accordingly.

Judging fruits and vegetables is simply a matter of making choices. Consumers buy fruits and vegetables at the market by selecting those most appealing to them on the basis of external quality and past experience. Visit produce markets or produce sections of grocery stores to examine fruits and vegetables. Try to identify the best-quality produce and determine why some produce is of inferior quality.

Notice the behavior of other shoppers. Almost everyone "selects" fruits and vegetables. They don't just take the first ones or closest ones. The key to success in this contest is learning, through experience, how to select the best produce.

Judging fruits and vegetables is based on common-sense factors. The following criteria should be used when evaluating the quality of produce:

- Specimens should be fresh and at the optimum stage of maturity for eating. Produce that is over-mature or immature is downgraded.
- 2. Specimens should be clean and free from insects and diseases or any damage caused by such pests.
- 3. Specimens should be free of bruises and blemishes. Although many surface blemishes do not affect eating quality, they do reduce eye appeal.
- 4. Grouped specimens should be uniform in size, shape, color and type. Each group within a class will have the same number of specimens.

When grading, first visualize the ideal specimen. Then consider all departures from this based on the above criteria and common sense. Factors that affect usefulness are downgraded more than other factors. For example, severely overripe bananas would be ranked below bananas with slight abnormalities in size or shape. The specimen(s) with the most defects and serious faults should receive the lowest rankings. It is usually best to first identify the worst group within a class, then pick the best of the remaining three groups. Finally, try to place the final two groups in rank order.

Judging Flowers and Foliage

Flowers are divided into two categories for judging purposes: cut flowers and potted plants.

Cut flowers can be divided into two main forms: spike and round. Gladiolus and snapdragon are examples of spike flowers, and the rose and chrysanthemum are examples of round flowers.

When judging spike flowers, look for long spikes with the greatest number of open flowers. The bottom flowers should show no signs of over-maturity (i.e., browning around the edges, shriveling or fading of color). Spike-form flowers should be just single spikes with no secondary side shoots.

Maturity is an important factor when judging round-form flowers. The center petals should not be so tight and immature as to be green, but they should be tighter than the outer petals. The outer petals should begin to turn down, but show no signs of wilting and drying.

Flowers should be of one variety or cultivar and have typical characteristics of that variety. Flowers should be free of irregularities, spray residue and blemishes due to insect, disease or mechanical injury. Stems should all be the same length, straight and strong enough to support the flower head without bending. Foliage should be clean, fresh and a bright shade of green.

Bloom size, color, freshness, arrangement of petals and symmetry are other important points to consider when judging cut flowers.

Potted flowering plants should be short, compact, well shaped and have dark-green foliage with flower buds just beginning to show color or perhaps with a few buds open. Specimens having the most flower buds are normally more desirable.

Judging foliage plants is similar to judging potted plants, but much more attention should be given to the quality of the foliage. Criteria to consider include the size, color and number of the leaves, as well as the size and shape of the plant, and whether it appears to be growing and healthy.

Judging Ornamental Plants (Woody Plants, Vines, Groundcovers and Ornamental Grasses)

When judging woody plants, look for a healthy, vigorous plant that is well shaped, heavily branched, and densely foliated. Density and condition of the plant are more important qualities than the physical measurement or height. A shrub with a number of stocky, well shaped branches is of better quality than a shrub with long, thin branches.

Some factors that downgrade ornamental plants are the following:

- 1. Excessive succulence or a lack of health and vigor.
- 2. Canes or trunk(s) and branches:

- Weak or poorly formed;
- Excessive scarring or scars not healed properly;
- Poor graft unions not healing properly;
- Branches poorly distributed;
- Dead wood.
- 3. Foliage:
- Leaves of improper shape, size, texture and color;
- Excessive chlorosis (yellowing) due to nutrient deficiency or other causes;
- Excessive pest or mechanical injury;
- Dead leaves.
- 4. Root system of container-grown stock:
- Not well established in container;
- Excessively root bound;
- Large roots growing out of container;
- Weeds in container.
- 5. Root system of balled and burlapped stock:
- Loosely established in the ball;
- Ball soft or loosely tied;
- Ball too small or shallow;
- Weeds growing around trunk.

Glossary of Botanical Terms

Alternate Leaf Arrangement: One leaf at a node. (See Figure 1.)

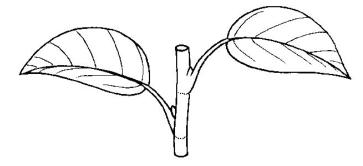


Figure 1.

Annual: A plant that completes its life cycle in one season. In Florida annuals are typically referred to as warm-season or cool-season.

Apical: At the tip, as in the end of a shoot or root.

Basal: Leaves that grow at the base of the stem.

Berry Type Fruit: A simple, pulpy fruit, such as blueberry, grape or tomato. (See Figure 2.)

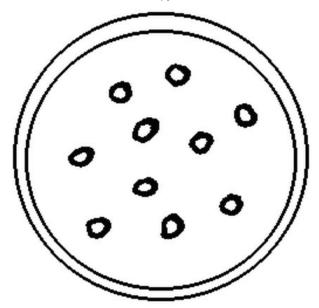


Figure 2.

Biennial: A plant that completes its life cycle in two growing seasons.

Bipinnate: Twice pinnate, with leaflets arranged on each side of a common stalk. (See Figure 3.)

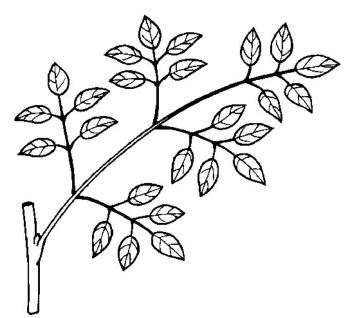


Figure 3.

Bloom: A waxy, white covering on leaves or fruit; a name for the flowering part of a plant.

Bract: A more-or-less-modified leaf, situated near a flower. Ex: The brightly colored "petals" of a poinsettia are actually bracts.

Branchlets: Small branches growing from a larger branch.

Bud: Much-condensed, undeveloped shoot.

Bulb: A short, modified stem, the thickened leaves of which store reserved food. Amaryllis, onion and garlic are examples of plants that grow from bulbs.

Bulbous: Like a bulb or producing a bulb.

Catkins: A dense spike or raceme without petals, having

only male or female reproductive parts. Columnar: Slender, upright form.

Compound Leaf: A leaf composed of two or more leaflets.

Coniferous: Cone-bearing.

Cordate Leaf Shape: Heart-shaped. (See Figure 4.)

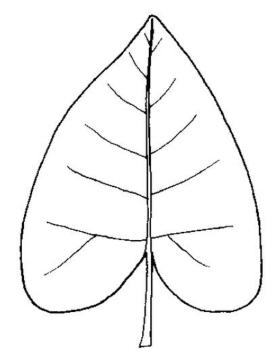


Figure 4.

Corm: A thickened, vertical, solid, underground stem. Gladiolus and caladium are examples of plants that grow from corms.

Cormels: Small corms that arise from a larger corm.

Corolla: Collective name for petals.

Corymb Flower Arrangement: An inflorescence consisting of a central rachis bearing a number of branched pedicels - the lower ones much longer than the upper - resulting in a flat or more or less round-topped cluster. (See Figure 5.)

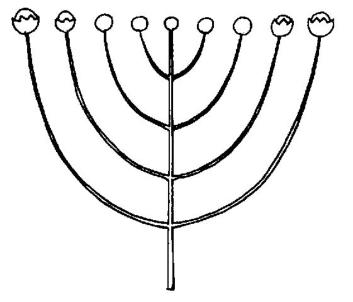


Figure 5.

Crenate Leaf Margin: Blunt, rounded teeth. (See Figure 6.)

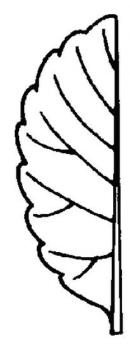


Figure 6.

Cyme Flower Arrangement: An inflorescence consisting of a central rachis bearing a number of pedicelled flowers. (See Figure 7.)

Deciduous: A plant that sheds its leaves during certain seasons of the year.

Dioecious: Male and female flowers are borne on different plants. Ex: hollies, wax myrtle.

Drupe Fruit Type: A fruit with four major parts -- a thin skin, a fleshy body, a hard stone and an inner seed. Ex: Peach. (See Figure 8.)

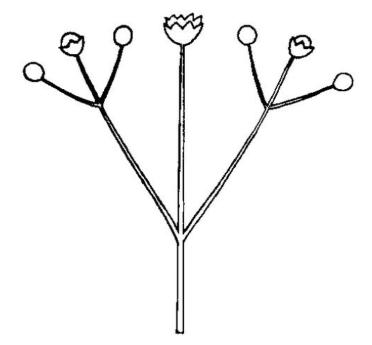


Figure 7.

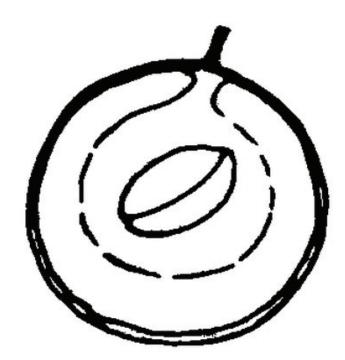


Figure 8.

Elliptic Leaf Shape: Broadest at the middle with the ends nearly equal. (See Figure 9.)

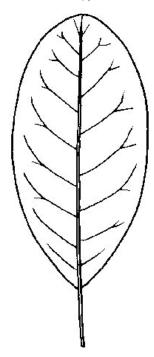


Figure 9.

Entire Leaf Margin: Uncut, without indentations. (See Figure 10.)

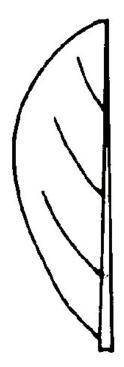


Figure 10.

Evergreen: Bearing leaves throughout the year.

Exfoliating: Peeling off in thin layers.

Floret: A small flower or an individual flower in a cluster. Funnelform Corolla Type: Tube gradually expanding upward as a funnel. The limb may be flaring or somewhat at right angles to the flower axis. (See Figure 11.)

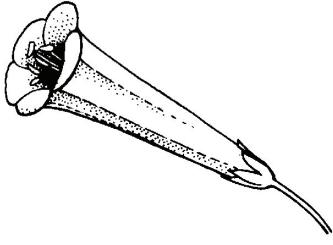


Figure 11.

Glabrous: Smooth, no hairs present.

Globose or Globular: Rounded or like a sphere.

Gymnosperm: Cone-bearing plants, considered to be more

primitive than flowering plants. Ex: Pine trees. Herbaceous: A plant with no persistent woody stem above

ground.

Husk: The hard or tough layer that covers some fruits and

seeds.

Indehiscent: A fruit that does not open spontaneously to

release seeds.

Inflorescence: The flowering part of a plant.

Internode: The part of the stem that is between two nodes. Kernel: The inner and usually edible part of a seed, grain or

nut.

Lanceolate: Shaped as the head of a lance, broadened at the

base and tapering toward the apex. (See Figure 12.)

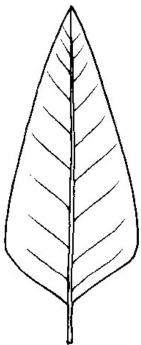


Figure 12.

Leaf Axil: The angle between the stem and the upper surface of an attached leaf.

Leaflet: One of the divisions of a compound leaf.

Lenticels: A group of raised, corky cells that form beneath the epidermis of a woody plant.

Linear: Long and narrow, the sides parallel or nearly so.

(See Figure 13.)

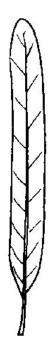


Figure 13.

Lobed Leaf Margin: Divided into lobes separated by narrow or acute indentations, which extend from one-third to one-half of the distance between margin and midrib. (See Figure 14.)

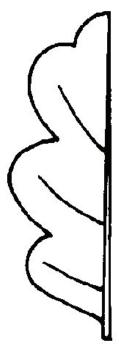


Figure 14. Figure 16.

Margin: The outer edge of a leaf.

Midrib: The main or central vein of a leaf.

Monoecious: Male and female flowers are borne on the

same plant.

Node: The place on the stem that normally bears a leaf. Oblanceolate Leaf Shape: The broadest half above the middle and tapering toward the apex; the reverse of lanceo-

late. (See Figure 15.)

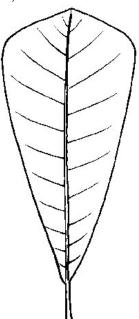
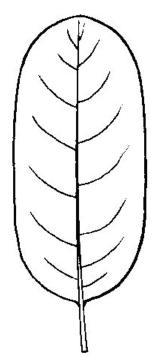


Figure 15.

Oblate: Spherical, flattened on both ends. Oblong: Longer than broad and with sides nearly parallel. (See Figure 16.)



Obovate: Inversely ovate, with the broadest half above the middle. (See Figure 17.)

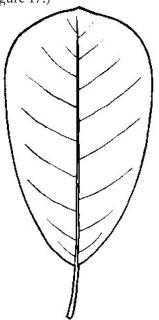


Figure 17.

Odd-pinnately Compound: A compound leaf terminated by a leaflet. (See Figure 18.)

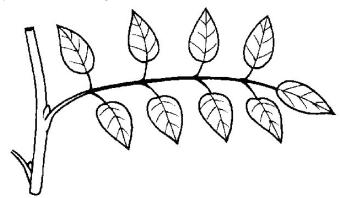


Figure 18.

Opposite Leaf Arrangement: Two leaves at a node, one on the opposite side of the stem from the other. (See Figure 19.)

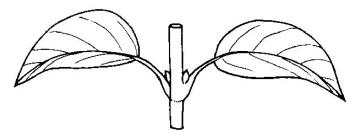


Figure 19.

Oval Leaf Shape: Broadly elliptical, with the width usually greater than one half of the length. (See Figure 20.)

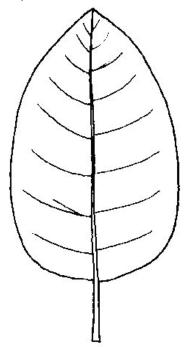


Figure 20.

Ovary: Basal portion of the female flower that becomes a fruit.

Ovate Leaf Shape: Egg-shaped, with the broadest half below the middle. (See Figure 21.)

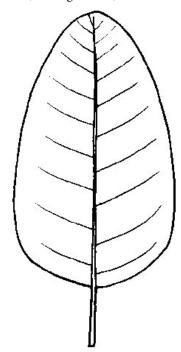


Figure 21.

Ovoid: Shaped like an egg with the stem attachment at the broad end.

Palmate: A pattern where the leaves or leaf veins radiate from one point (as fingers radiate from the palm of a hand). Panicle: A branched inflorescence where the bottom flowers open first.

Pedicel: The stalk of a single flower in an inflorescence.

Perennial: A plant that grows indefinitely.

Petal: One of the individual parts of the corolla.

Petiole: Stalk supporting the leaf.

Pinnate: A pattern where the leaves or leaf veins are arranged like a feather. In venation, major veins extend from

the midrib to the margin (See Figure 20).

Pinnately compound: A compound leaf divided into leaflets arranged on opposite sides of the stem.

Pit: The stone of a fruit, such as in a plum or cherry.

Pith: Soft, spongy tissue in the center of the stem or roots.

Pods: Dry fruit that opens when mature.

Pome Fruit Type: A fleshy fruit having seed chambers and an outer fleshy part. Ex: apple and pear. (See Figure 22.)

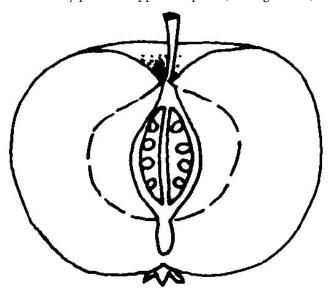


Figure 22.

Prickles: A small, spine-like growth. Pubescent: Covered with short, soft hairs.

Pyramidal: Shaped like a pyramid, with a broad base and

tapered point.

Raceme Flower Arrangement: An inflorescence consisting of a central stem bearing a number of pedicelled flowers with the pedicels of nearly equal length. (See Figure 23.) Receptacle: The enlarged upper end of the stalk of a flowering plant, on which the flower parts are held.

Revolute Leaf Margin: Rolled backward, or underneath. (See Figure 24.)

Rhizome: Any prostrate, elongated, stem, growing partially or completely beneath the surface of the ground.

Rosette Leaf Arrangement: Arrangement of leaves radiating from a crown or center and usually growing close to the ground. (See Figure 25.)

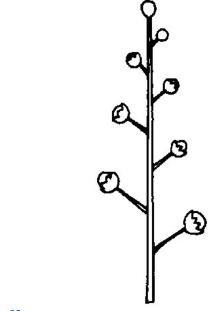


Figure 23.

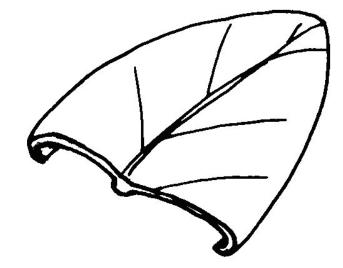


Figure 24.

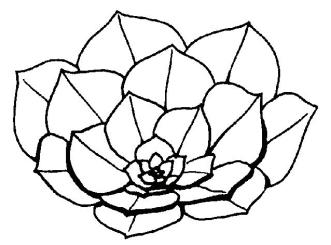
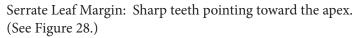


Figure 25.

Samara Fruit Type: Winged fruit; dry, indehiscent. (See Figure 26.)



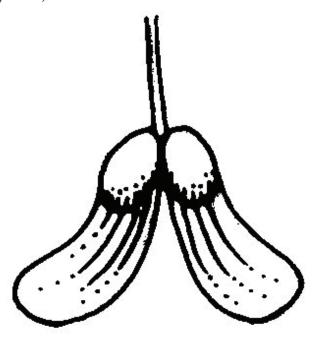


Figure 26.

Scale-like Leaf Shape: Small, short, usually sharp-pointed, broadened at the base. (See Figure 27.)



Figure 27.

Segments: In palms, leaf is deeply lobed, but not divided. Sepal: Usually green in color and one of the parts of the outer whorl of a flower.



Figure 28.

Simple Leaf: An undivided leaf; without leaflets. (See Figure 29.)

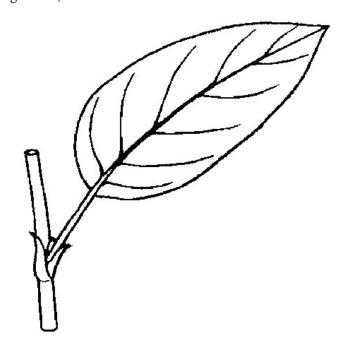


Figure 29.

Solitary: Single, one flower.

Spadix: A flower spike, usually densely flowered with imperfect flowers, and having a thick and fleshy axis. (See Figure 30.)

Spathe: A large bract sheathing or enclosing a spadix. (See Figure 30.)

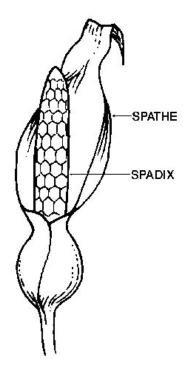


Figure 30.

Spike Flower Arrangement: An inflorescence consisting of a central rachis bearing a number of flowers directly attached to the flower stem (i.e., no pedicels). (See Figure 31.)

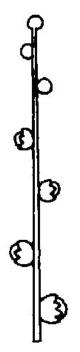


Figure 31.

Spore: A small, reproductive structure capable of developing into a new organism. Ferns and fungi are examples of organisms that use spores to reproduce.

Spur: In fruit, a short shoot that bears the fruit; in flowers, a tubular projection of the corolla.

Stamen: The male, pollen-bearing organ of a flower, an organ consisting of a filament and anther. (See Figure 32.)

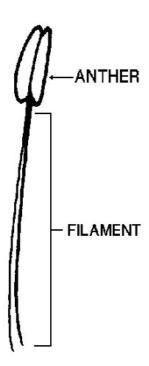


Figure 32.

Stolon: Trailing stem above ground, rooting at the nodes.

Stone: The woody portion of the protective enclosure surrounding a seed.

Stone cell: Hard cells with thick walls that provide support to the plant and give the flesh a gritty texture.

Subopposite: Nearly alternate, but with close spacing.

Succulent: Fleshy and full of juice.

Suture: In fruit, the line where the dry fruit splits open.

Tendril: A modified leaf or stem, slender and coiling, used for grasping or attaching to a support.

Trifoliate: A compound leaf having three leaflets.

Tuber: A thickened, short, usually subterranean stem

having numerous buds, called eyes. Ex: potato.

Tunicate: Having enwrapping coats or layers, like an onion. Umbel Flower Arrangement: An inflorescence consisting of several pedicelled flowers with a common point of attachment. (See Figure 33.)

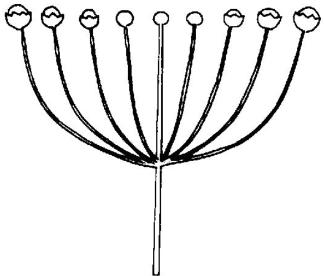


Figure 33. Undulate Leaf Margin: Wavy leaf edge (up and down in a vertical plane). (See Figure 34.)



Whorled Leaf Arrangement: Three or more leaves at a node. (See Figure 35.)

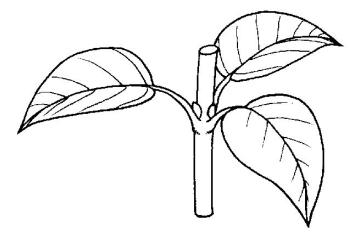


Figure 35.

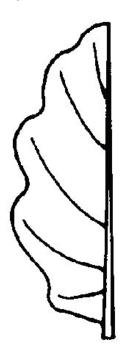


Figure 34.

Table 1. Fruits and Nuts

Specimen #	Common Name	Botanical Name
	Apple	Malus domestica
	Apricot	Prunus armeniaca
	Avocado	Persea americana
	Banana	Musa spp.
	Barbados Cherry	Malpighia glabra
	Black Walnut	Juglans nigra
	Blackberry	Rubus spp.
	Blueberry	Vaccinium spp.
	Carambola	Averrhoa carambola
	Cashew	Anacardium occidentale
	Cherry, Sour / Cherry, Sweet	Prunus spp.
	Chestnut	Castanea mollissima
	Chinese Jujube	Ziziphus jujube
	Coconut	Cocos nucifera
	Elderberry	Sambucus canadensis
	Fig	Ficus carica
	Grape, Bunch	Vitis vinifera
	Grape, Muscadine	Vitis rotundifolia
	Grapefruit	Citrus paradisi
	Guava	Psidium guajava
	Hickory Nut	Carya spp.
	Key Lime and Tahiti Lime	Citrus aurantiifolia & Citrus Iatifolia
	Kiwi Fruit	Actinidia deliciosa
	Kumquat	Citrus japonica
	Lemon	Citrus limon
	Loquat	Eriobotrya japonica
	Lychee	Litchi chinensis
	Mamey Sapote	Pouteria sapota
	Mango	Mangifera indica
	Mayhaw	Crataegus spp.

Specimen #	Common Name	Botanical Name
	Mulberry	Morus spp.
	Persimmon, Japanese	Diospyros kaki
	Persimmon, Native	Diospyros virginiana
	Nectarine	Prunus persica var. nucipersica
	Orange	Citrus sinensis
	Papaya	Carica papaya
	Passion Fruit	Passiflora edulis
	Paw Paw	Asimina triloba
	Peach	Prunus persica
	Pear	Pyrus communis
	Pecan	Carya illinoinensis
	Pineapple	Ananas comosus
	Plum	Prunus spp.
	Pomegranate	Punica granatum
	Quince	Cydonia oblonga
	Raspberry	Rubus spp.
	Strawberry	Fragaria spp.
	Sugar Apple	Annona squamosa
	Tangelo	Citrus reticulata × Citrus paradisi
	Tangerine	Citrus reticulata

Table 2. Vegetables

Specimen #	Common Name	Botanical Name
	Artichoke, Globe	Cynara scolymus
	Artichoke, Jerusalem	Helianthus tuberosus
	Asparagus	Asparagus officinalis
	Bean, Lima	Phaseolus lunatus
	Bean, Snap	Phaseolus vulgaris
	Beet	Beta vulgaris
	Broccoli	Brassica oleracea var. italica
	Brussels Sprouts	Brassica oleracea var. gemmifera
	Cabbage	Brassica oleracea var. capitata
	Cabbage, Chinese	Brassica campestris var. chinensis
	Cantaloupe	Cucumis melo var. reticulatus
	Carrot	Daucus carota
	Cauliflower	Brassica oleracea var. botrytis
	Celery	Apium graveolens
	Chard, Swiss	Beta vulgaris var. cicla
	Chayote	Sechium edule
	Chives	Allium schoenoprasum
	Collards	Brassica oleracea var. acephala
	Cucumber	Cucumis sativus
	Eggplant	Solanum melongena
	Endive	Cichorium endivia
	Escarole	Cichorium endivia
	Fennel	Foeniculum vulgare
	Garbanzo	Cicer arietinum
	Garlic	Allium sativum
	Kale	Brassica oleracea var. acephala
	Kohlrabi	Brassica oleracea var. gongylodes
	Leek	Allium ampeloprasum var. porrum
	Lettuce	Lactuca sativa
	Malanga	Xanthosoma spp.

Specimen #	Common Name	Botanical Name
	Mustard	Brassica juncea var. (many)
	Okra	Abelmoschus esculentus
	Onion	Allium cepa
	Parsley	Petroselinum crispum
	Parsnip	Pastinaca sativa
	Pea, English	Pisum sativum
	Pea, Southern	Vigna unguiculata
	Pepper	Capsicum annuum
	Potato, Irish	Solanum tuberosum
	Potato, Sweet	Ipomoea batatas
	Radish	Raphanus sativus
	Rutabaga	Brassica napus var. napobrassica
	Sage	Salvia officinalis
	Spinach	Spinacia oleracea
	Squash, Butternut	Cucurbita moschata Duchesne
	Squash, Zucchini	Cucurbita pepo
	Sweet Corn	Zea mays var. saccharata
	Tomato	Lycopersicon esculentum
	Turnip	Brassica rapa var. rapa
	Watermelon	Citrullus lanatus

Table 3. Flowers and Foliage Plants

African Violet Aloe Vera Aloe Vera Aloe vera Amaryllis Hippeastrum spp. Anthurium Anthurium spp. Begonia Begonia spp. Blanket Flower Gaillardia spp. Caladium Caladium x spp. Calathea, Prayer Plant Celosia Celosia Celosia Celosia Celosia Chinese Evergreen, Aglaonema Chrysanthemum Chrysanthemum x morifolium Coleus Plectranthus scutellarioides Coreopsis, Tickseed Coreopsis, Tickseed Coreopsis spp. Daylily Hemerocallis spp. Dendrobium Orchids Dianthus Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia Dieffenbachia spp. Dracaena Marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium x hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.	Specimen #	Common Name	Botanical Name
Amaryllis Hippeastrum spp. Anthurium Anthurium spp. Begonia Begonia spp. Blanket Flower Gaillardia spp. Caladium Caladium × spp. Calathea, Prayer Plant Calathea spp. Canna Canna × generalis Celosia Celosia spp. Chinese Evergreen, Aglaonema commutatum Aglaonema Chrysanthemum Chrysanthemum × morifolium Coleus Plectranthus scutellarioides Coreopsis, Tickseed Coreopsis spp. Daylily Hemerocallis spp. Dendrobium Orchids Dendrobium spp. Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata Dracaena marginata English Ivy Hedera helix False Heather, Mexican Lenguium × hortorum Gerbara Daisy Gerbera jamesonii Gladiolus Gladiolus hortulanus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		African Violet	Saintpaulia spp.
Anthurium Anthurium spp. Begonia Begonia spp. Blanket Flower Gaillardia spp. Caladium Caladium × spp. Calathea, Prayer Plant Calathea spp. Canna Canna × generalis Celosia Celosia spp. Chinese Evergreen, Aglaonema commutatum Aglaonema Chrysanthemum Chrysanthemum × morifolium Coleus Plectranthus scutellarioides Coreopsis, Tickseed Coreopsis spp. Daylily Hemerocallis spp. Dendrobium Orchids Dendrobium spp. Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata Dracaena marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Gladiolus hortulanus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Aloe Vera	Aloe vera
Begonia Begonia spp. Blanket Flower Gaillardia spp. Caladium Caladium × spp. Calathea, Prayer Plant Calathea spp. Canna Canna × generalis Celosia Celosia spp. Chinese Evergreen, Aglaonema commutatum Aglaonema Chrysanthemum Chrysanthemum × morifolium Coleus Plectranthus scutellarioides Coreopsis, Tickseed Coreopsis spp. Daylily Hemerocallis spp. Dendrobium Orchids Dendrobium spp. Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata Dracaena marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Gladiolus hortulanus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Amaryllis	Hippeastrum spp.
Blanket Flower Caladium Caladium × spp. Calathea, Prayer Plant Canna		Anthurium	Anthurium spp.
Caladium Caladium x spp. Calathea, Prayer Plant Calathea spp. Canna Canna x generalis Celosia Celosia spp. Chinese Evergreen, Aglaonema commutatum Aglaonema Chrysanthemum Chrysanthemum x morifolium Coleus Plectranthus scutellarioides Coreopsis, Tickseed Coreopsis spp. Daylily Hemerocallis spp. Dendrobium Orchids Dendrobium spp. Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata Dracaena marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium x hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Gladiolus hortulanus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Begonia	Begonia spp.
Calathea, Prayer Plant Canna Canna × generalis Celosia Celosia Celosia Celosia pp. Chinese Evergreen, Aglaonema commutatum Aglaonema Chrysanthemum Chrysanthemum × morifolium Coleus Plectranthus scutellarioides Coreopsis, Tickseed Coreopsis spp. Daylily Hemerocallis spp. Dendrobium Orchids Dianthus chinensis Dianthus Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens		Blanket Flower	Gaillardia spp.
Canna Canna × generalis Celosia Celosia spp. Chinese Evergreen, Aglaonema commutatum Aglaonema Chrysanthemum Chrysanthemum × morifolium Coleus Plectranthus scutellarioides Coreopsis, Tickseed Coreopsis spp. Daylily Hemerocallis spp. Dendrobium Orchids Dendrobium spp. Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata Dracaena marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Gladiolus hortulanus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Caladium	Caladium × spp.
Celosia Celosia spp. Chinese Evergreen, Aglaonema commutatum Aglaonema Chrysanthemum Chrysanthemum × morifolium Coleus Plectranthus scutellarioides Coreopsis, Tickseed Coreopsis spp. Daylily Hemerocallis spp. Dendrobium Orchids Dendrobium spp. Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata Dracaena marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Gladiolus hortulanus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Calathea, Prayer Plant	Calathea spp.
Chinese Evergreen, Aglaonema commutatum Aglaonema Chrysanthemum Chrysanthemum × morifolium Coleus Plectranthus scutellarioides Coreopsis, Tickseed Coreopsis spp. Daylily Hemerocallis spp. Dendrobium Orchids Dendrobium spp. Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata Dracaena marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Gladiolus hortulanus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Canna	Canna × generalis
Aglaonema Chrysanthemum Chrysanthemum × morifolium Coleus Plectranthus scutellarioides Coreopsis, Tickseed Coreopsis spp. Daylily Hemerocallis spp. Dendrobium Orchids Dendrobium spp. Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata Dracaena marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Gladiolus hortulanus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Celosia	Celosia spp.
Coleus Plectranthus scutellarioides Coreopsis, Tickseed Coreopsis spp. Daylily Hemerocallis spp. Dendrobium Orchids Dendrobium spp. Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata Dracaena marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Gladiolus hortulanus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.			Aglaonema commutatum
Coreopsis, Tickseed Daylily Hemerocallis spp. Dendrobium Orchids Dianthus Spp. Dianthus Dianthus Chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gladiolus Gladiolus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Pholly Fern Cyrtomium falcatum Impatiens Impatiens Impatiens		Chrysanthemum	Chrysanthemum × morifolium
Daylily Dendrobium Orchids Dendrobium spp. Dianthus Dieffenbachia Dieffenbachia spp. Dracaena Marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Gerbera Daisy Gladiolus Gladiolus Globe Amaranth Globe Amaranth Gloxinia Heart-Leaf Philodendron Holly Fern Impatiens Impatiens Dieffenbachia spp. Gerbera hyssopifolia Guphea hyssopifolia Guphea hyssopifolia Gerbera jamesonii Gladiolus hortulanus Globe Amaranth Gomphrena globosa Fhilodendron hederaceum Philodendron hederaceum Impatiens Impatiens spp.		Coleus	Plectranthus scutellarioides
Dendrobium Orchids Dianthus Dianthus chinensis Dieffenbachia Dieffenbachia spp. Dracaena Marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Gerbera Daisy Gladiolus Globe Amaranth Globe Amaranth Gloxinia Heart-Leaf Philodendron Hederaceum Impatiens Dianthus chinensis Dieffenbachia spp.		Coreopsis, Tickseed	Coreopsis spp.
Dianthus Dianthus Dieffenbachia Dieffenbachia spp. Dracaena Marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gladiolus Gladiolus Globe Amaranth Globe Amaranth Gloxinia Heart-Leaf Philodendron Holly Fern Impatiens Dianthus chinensis Dieffenbachia spp. Dracaena marginata Cuphea hyssopifolia Cuphea hyssopifolia Guphea hyssopifolia Gerbera jamesonii Gladiolus hortulanus Globe Amaranth Gomphrena globosa Fhilodendron hederaceum Philodendron hederaceum Impatiens		Daylily	Hemerocallis spp.
Dieffenbachia Dieffenbachia spp. Dracaena Marginata Dracaena marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Gladiolus hortulanus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Dendrobium Orchids	Dendrobium spp.
Dracaena Marginata English Ivy Hedera helix False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gladiolus Gladiolus Globe Amaranth Gloxinia Gloxinia Heart-Leaf Philodendron Holly Fern Impatiens Impatiens Dracaena marginata Cuphea hyssopifolia Cuphea hyssopifolia Guphea hyssopifolia Gerbera jamesonii Gladiolus hortulanus Globe Amaranth Gomphrena globosa Fhilodendron hederaceum Philodendron hederaceum Impatiens spp.		Dianthus	Dianthus chinensis
English Ivy False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gladiolus Gladiolus Globe Amaranth Gloxinia Gloxinia Heart-Leaf Philodendron Holly Fern Impatiens Hedera helix Cuphea hyssopifolia Cuphea hyssopifolia Gladiolus hortorum Anticorum Formalish fortulanus Gladiolus hortulanus Glomphrena globosa Sinningia speciosa Philodendron hederaceum Philodendron hederaceum		Dieffenbachia	Dieffenbachia spp.
False Heather, Mexican Heather Geranium Pelargonium × hortorum Gerbera Daisy Gladiolus Gladiolus Globe Amaranth Gloxinia Gloxinia Heart-Leaf Philodendron Holly Fern Impatiens Cuphea hyssopifolia Caphea hyssopifolia Pelargonium × hortorum Gerbera jamesonii Gladiolus hortulanus Gomphrena globosa Sinningia speciosa Philodendron hederaceum Philodendron hederaceum Impatiens spp.		Dracaena Marginata	Dracaena marginata
Heather Geranium Pelargonium × hortorum Gerbera Daisy Gerbera jamesonii Gladiolus Gladiolus Gladiolus hortulanus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		English Ivy	Hedera helix
Gerbera Daisy Gerbera jamesonii Gladiolus Gladiolus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.			Cuphea hyssopifolia
Gladiolus Gladiolus Globe Amaranth Gomphrena globosa Gloxinia Sinningia speciosa Heart-Leaf Philodendron Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens		Geranium	Pelargonium × hortorum
Globe Amaranth Gloxinia Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Gerbera Daisy	Gerbera jamesonii
Gloxinia Gloxinia Sinningia speciosa Heart-Leaf Philodendron hederaceum Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Gladiolus	Gladiolus hortulanus
Heart-Leaf Philodendron hederaceum Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Globe Amaranth	Gomphrena globosa
Philodendron Holly Fern Cyrtomium falcatum Impatiens Impatiens spp.		Gloxinia	Sinningia speciosa
Impatiens Impatiens spp.			Philodendron hederaceum
		Holly Fern	Cyrtomium falcatum
Jade Plant Crassula ovata		Impatiens	Impatiens spp.
		Jade Plant	Crassula ovata

Specimen #	Common Name	Botanical Name
	Lily of the Nile	Agapanthus praecox
	Marigold	Tagetes spp.
	Moth Orchid	Phalaenopsis spp.
	Neanthe Bella Palm, Parlor Palm	Chamaedorea elegans
	Peace Lily, Spathiphyllum	Spathiphyllum spp.
	Pentas	Pentas lanceolata
	Peperomia	Peperomia spp.
	Periwinkle, Vinca	Catharanthus roseus
	Poinsettia	Euphorbia pulcherrima
	Pothos	Epipremnum aureum
	Salvia	Salvia spp.
	Sansevieria	Sansevieria spp.
	Spider Plant	Chlorophytum comosum
	Stokes Aster	Stokesia laevis
	Torenia, Wishbone Flower	Torenia fournieri
	Verbena	Verbenia hybrida
	Wax Plant	Hoya carnosa
	Weeping Fig	Ficus benjamina
	Zebra Plant	Aphelandra squarrosa
	Zinnia	Zinnia elegans

Table 4. Ornamentals (Woody Plants, Vines, Groundcovers and Ornamental Grasses)

Specimen #	Common Name	Botanical Name
	Allamanda	Allamanda schottii
	American Holly	llex opaca
	Anise	Illicium parviflorum
	Azalea	Rhododendron spp.
	Baldcypress	Taxodium distichum
	Beautyberry	Callicarpa americana
	Black Olive	Bucida buceras
	Bougainvillea	Bougainvillea spp.
	Burford Holly	llex cornuta 'Burfordii'
	Cabbage Palm	Sabal palmetto
	Camellia	Camellia spp.
	Carissa, Natal Plum	Carissa macrocarpa
	Cherokee Bean	Erythrina herbacea
	Chinese Elm	Ulmus parvifolia
	Chinese Fringe Bush	Loropetalum chinense
	Coontie	Zamia floridana
	Coral Honeysuckle	Lonicera sempervirens
	Crapemyrtle	Lagerstroemia indica
	Croton	Codiaeum variegatum
	Dogwood	Cornus florida
	Fakahatchee Grass, Gamma Grass	Tripsacum floridanum
	Feijoa, Pineapple Guava	Acca sellowiana
	Glossy Abelia	Abelia × grandiflora
	Hibiscus	Hibiscus rosa – sinensis
	Indian Hawthorn	Rhaphiolepis indica
	Ixora	lxora coccinea
	Ligustrum, Japanese Privet	Ligustrum japonicum
	Liriope, Border Grass	Liriope muscari
	Live Oak	Quercus virginiana
	Loblolly Bay	Gordonia lasianthus

Specimen #	Common Name	Botanical Name
	Mondo Grass, Monkey Grass	Ophiopogon japonicus
	Muhly Grass	Muhlenbergia capillaris
	Pfitzer Juniper	Juniperus chinensis f. pfitzerana
	Pindo Palm	Butia capitata
	Pine	Pinus spp.
	Pittosporum	Pittosporum tobira
	Podocarpus	Podocarpus macrophyllus
	Red Maple	Acer rubrum
	Redbud	Cercis canadensis
	River Birch	Betula nigra
	Royal Poinciana	Delonix regia
	Sago Palm	Cycas revoluta
	Sea Grape	Coccoloba uvifera
	Shore Juniper	Juniperus conferta
	Shumard Oak	Quercus shumardii
	Southern Magnolia	Magnolia grandiflora
	Sweet Gum	Liquidambar styraciflua
	Sycamore	Platanus occidentalis
	Wax Myrtle	Myrica cerifera
	Yaupon Holly	llex vomitoria

Table 5. Judging Sheet

JUDGING: Eight classes of horticultural plants or produce will be judged as follows:

A. Two classes of flowers and foliage plants. B. Two classes of fruits and nuts. C. Two classes of ornamentals. D. Two classes of vegetables. **DIRECTIONS:** There are 8 classes with 4 specimens in each class. The specimens are lettered A through D from left to right. When you have decided on the placing of a particular class, mark that placing opposite the appropriate class under the heading "Placing". Examples might be: CBDA, ADCB, BACD, etc. Be sure to judge all 8 classes.

LASS	PRODUCT	PLACING	SCORE
ASS 1			
ASS 2			
ASS 3			
ASS 4			
ASS 5			
ASS 6			
ASS 7			
ASS 8			