

4-H AND FFA FLORICULTURE CONTEST RESOURCE

I. PURPOSE

The purpose of the Floriculture Contest is to stimulate the study of, and interest in, the production and retailing of cut flowers, plants and foliage through the agricultural education curriculum. The event requires students to identify plant materials, tools, and pests common to the industry, demonstrate knowledge and understanding of scientific principles and management practices applied in the industry via a written exam, make observations, draw conclusions, and utilize higher order thinking skills in problem solving situations. This event has ties to the following agricultural science curriculum: Floral Design, Horticulture Science and Practicum in Agriculture, Food and Natural Sciences.

II. EVENT FORMAT

A. Team Make-up Three or four individuals per school form a team. All members will be scored, and the top three scores will count towards the team total.

B. Equipment

1. Team members must provide their own sharpened pencils for the event. A pencil sharpener may not be available in each event room.
2. Team members must provide their own compliant clipboard and/or clean folder with the following items: optional Texas FFA CDE drop sheet and/or 2 sheets of lined or unlined blank paper.
3. Team members may use their own battery-operated non-programmable calculators.
4. Team members are not permitted to share calculators between teammates or among any other contestants.
5. No allowance will be made for malfunctioning or inoperable calculators. Electrical outlets will not be available for charging batteries, etc.
6. The "Universal Form C" scan sheet will be used for this Contest.

C. Event Schedule

1. Each contestant shall complete the event in the time allotted:
 - a. The identification of plant materials/pests/diseases/tools must be completed in 60 minutes. The identification section will be divided into two (30 minute) rotations.
 - b. The problem solving section must be completed in 30 minutes.
 - c. The placing classes must be completed in 15 minutes. The contestants will be able to work within the placing classes at their own pace during the 15 minutes.
 - d. The keep/cull section must be completed in 15 minutes. The contestants will be able to work within the keep/cull sections at their own pace during the 15 minutes.
 - e. The written examination must be completed in 30 minutes.
2. Observers are not permitted in the event area while the event is in progress, but observers may be allowed in the area following the event.
3. Providers are encouraged to leave contest materials in place for one hour following the conclusion of the event to allow teachers and students adequate time for review.

D. Identification of Plants/Tools/Pests/Diseases (600 points)

1. 60 specimens will be selected from the 170 plants/tools/pests/diseases listed on the Texas FFA Floriculture list.
2. Specimens will be identified in two rotations, 25 plants and five pests/diseases/tools in each rotation, with 30 minutes to complete each rotation. All contestants will be allowed to work within the rotation, at their own pace. Contestants cannot return to a rotation, once it is timed out.

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3. A plant specimen may consist of any part of the plant commonly utilized in the floriculture industry for plant identification. The plant must be match the plant listed on the Texas FFA Floriculture CDE list.
4. Plants to be identified will be presented as intact, live specimens. Tools may be either intact items or high quality photographs. Pests and diseases may be presented as intact specimens, photographs or preserved specimens (herbarium sheet, insect mount). Photographs will be 8.5" x 11" in size.
5. When a pest or disease must be presented with an affected plant, a "Pest/Disease" label will be with the item to designate identification of the problem rather than the plant.
6. Each contestant will be supplied with a list of the plants, pests, diseases and tools. Contest providers will distribute this list to the contestants at the start of the contest, to insure equal access to the information throughout the event.
7. Each specimen will be designated with a number. Students bubble in the appropriate number in the space next to the specimen's name on the scan sheet.
8. 10 points are given for each correctly identified specimen.
9. Under no circumstances is any contestant allowed to touch or handle the photos or specimen used as part of the event. Any infraction of this policy is sufficient cause to eliminate the individual from the entire contest.

E. Placing Classes (150 points)

1. Contestants place three classes that are selected from the placing classes list.
2. All plants in a class will be from the same species or cultivar.
3. There will be classes from each of the following types:
 - a. 1 class of blooming container plants.
 - b. 1 class of foliage container plants.
 - c. 1 class of floral designs.
4. Classes will consist of four items per placing class.
5. Classes will be designated by number and class name.
6. 50 points are given for each correctly placed class.
7. Floral designs will be labeled by type (symmetrical, asymmetrical, round or horizontal/vertical line).

F. Cut Flower Keep/Cull Classes (150 points)

1. One class each of line, form and mass flowers (eight specimens per class/ three classes total)
2. The guidelines will follow *A Manual for Flower Judging* (See reference section) in determining the keep/cull classes.
3. Contestants should designate the four best plant specimens from the eight specimens presented, using visual appraisal. Students are not permitted to handle any plant specimen.
4. Event officials will assign a point value to each one of the individual plant specimens, within the class, with the greatest number of points assigned to the most desirable specimen and the least points assigned to the least desirable specimen. If the student selects the best four plant specimens, within the provided class full credit will be given (50 points). The selection of less desirable plant specimens will reduce the points awarded within each keep/cull class.

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One class of cut line flowers which may include:

- *Antirrhinum majus* cv. - Snapdragon
- *Delphinium elatum* - Delphinium
- *Gladiolus x hortulanus* cv. - Gladiolus
- *Consolida ambigua* cv. Larkspur
- *Liatris spicata* - Liatris
- *Matthiola incana* - Stock
- *Moluccella laevis* cv. - Bells of Ireland

One class of cut form flowers which may include:

- *Anthurium andraeanum* - Anthurium
- Bulbous Flowers - Iris, Daffodil, Tulip
- *Zantedeschia aethiopica* - Calla
- *Gerbera jamesonii* cv. - Gerbera
- *Lilium* cv.
- *Helianthus annuus* cv. - Sunflower
- *Protea* cv. - Protea

One class of cut mass flowers which may include:

- *Chrysanthemum morifolium* cv. - Standard Type
- *Dendranthema grandiflorum* cv. - Spray Type
- *Dianthus caryophyllus* cv. - Standard carnation
- Rose cv. - Rose
- *Eustoma grandiflorum* - Lisianthus
- *Alstroemeria aurantiaca* – Alstroemeria

G. General Knowledge Examination (100 points)

1. Contestants will complete a 50 question multiple choice exam.
2. Questions will be taken from a data bank of questions located on the Texas FFA website.
3. Contestants are given 30 minutes to complete the examination
4. Two points are awarded for each question answered correctly.

H. Problem Solving (100 points)

1. This practicum is designed to evaluate participant's knowledge and ability related to floricultural practices in the industry and selection, care and handling of interior plants in various settings. The practicums will be as noted:

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- Pricing and Calculating Specialty Designs (i.e. homecoming, holidays, corsages/boutonnieres); and
 - Assessing Interiorscaping Plants
2. Contestants will be provided a written scenario that they must assess to determine the correct answers.
 3. Contestants will complete 10 multiple-choice questions.
 4. Contestants are given 30 minutes to complete the problem solving.
 5. 10 points are awarded for each question answered correctly.

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III. SCORING

Identification of Plant Materials	600 points
Placing Classes	150 points
Cut Flower Keep/Cull Classes	150 points
General Knowledge Exam	100 points
Problem Solving	100 points
TOTAL INDIVIDUAL POINTS	1,100 points
TOTAL TEAM POINTS	3,300 points

IV. TIEBREAKERS

A. Ties for team awards will be broken using the following criteria:

1. The team with the higher score in the identification section wins. If still tied:
2. The team with the higher score in the placing class of floral designs wins. If still tied:
3. The team with the higher score in the problem solving wins. If still tied:
4. The team with the highest alternate score wins. If still tied:
5. The team will be accompanied by their advisor and will meet with the contest officials who will conduct a coin toss to determine the higher placing team.

B. Ties for individual awards will be broken using the following criteria:

1. The individual with the higher score in the identification section wins. If still tied:
2. The individual with the higher score in the placing class of floral designs wins. If still tied:
3. The individual with the higher score in the problem solving wins. If still tied:
4. The individual will be accompanied by their advisor and will meet with the contest officials who will conduct a coin toss to determine the higher placing individual.

V. REFERENCES

Available from IMS, CEV and other resources:

Printed Materials

8942 Complete Set AgSc 362 – Horticultural Plant Production, IMS

8959 Complete Set AgSc 363 – Principles and Elements of Floral Design, IMS

8188 Complete Set AgSc 365 – Advanced Floral Design, IMS

Videos References

9531D Techniques in Flower Judging

9736 Competitive Flower Arranging

9841 Horticulture Plant Identification – Floral, CEV

9842 Horticulture Plant Identification – Foliage, CEV

9844 Practice Horticultural Plant Identification, CEV

Computer Software

9430NC - Floriculture CDE Placing Classes, IMS

Keep/Cull Cut Flower References: (Not Available through IMS)

A Manual for Flower Judging. (11th Edition) Prepared by Pi Alpha Xi is available from: ASHS, 1018 Duke Street, Alexandria, VA 22314; phone: 703.836.4606; fax: 703.836.2024; email: pax@ashs.org; Cost is \$12 each plus shipping.

Problem solving resources:

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Hunter, Norah T. *The Art of Floral Design*. Second edition (2000). Albany, New York: Delmar Publishers, Inc. www.agriscience.delmar.com

Scace, Pat Diehl., and James M. DelPrince. *Principles of Floral Design: An Illustrated Guide*. (2014). Tinley Park, IL: Goodheart-Willcox Company, Incorporated

<http://aggiehorticulture.tamu.edu/archives/parsons/publications/houseplant/houseplant.html>

Georgia Agriculture Curriculum Resource website: <http://www.gaaged.org/page.aspx?ID=76>

Other Websites: Interiorscape Plants Database

<http://aggiehorticulture.tamu.edu/databases/interiorscape>

National FFA website www.ffa.org

Texas FFA website (test bank questions) www.texasffa.org

Additional Information FLORICULTURE PLACING CLASSES

- 1) One class of blooming container plants, which may include:
 - Kalanchoe blossfeldiana cv. – Kalanchoe
 - Rhododendron cv. – Azalea
 - Saintpaulia ionantha cv. – African violet
 - Chrysanthemum x morifolium cv. – Florist’s chrysanthemum
 - Rosa cv. – Roses
 - Begonia tuberhybrida cv. – Tuberous begonias
 - Pelargonium x hortorum – Geraniums
- 2) One class of foliage container plants, which may include:
 - Epipremnum aureum cv. – Golden pothos, devil’s ivy
 - Ficus benjamina ‘Exotica’ – Benjamin fig, weeping fig
 - Ficus elastica – Rubber tree
 - Nephrolepis exaltata cv. – Boston fern
 - Spathiphyllum spp. – Spathiphyllum, Peace lily
 - Codiaeum variegatum cv. – Croton
 - Hedera helix cv. – English ivy
- 3) One class of floral designs, which may include the following design styles:
 - Symmetrical triangle
 - Asymmetrical triangle
 - Round
 - Horizontal or Vertical Line

FLORICULTURE ID LIST

Plants	
001	Adiantum spp. – Maidenhair Fern
002	Aechmea cv. – Bromeliad
003	Agapanthus africanus – African Lily
004	Aglaonema commutatum cv. – Aglaonema, Chinese Evergreen
005	Alpinia purpurata – Red Ginger
006	Alstroemeria aurantiaca – Alstroemeria, Peruvian Lily
007	Amaranthus sp. - Amaranthus, Amaranthus cv.
008	Ammi majus - Queen Anne’s Lace, Laceflower
009	Anthurium andraeanum - Anthurium
010	Antirrhinum majus cv. – Snapdragon
011	Araucaria heterophylla – Norfolk Island Pine
012	Asparagus densiflorus ‘Myriocladus’ – Ming Fern
013	Asparagus densiflorus ‘Sprengeri’ – Sprengeri Fern
014	Asparagus setaceus – Plumosa Fern
015	Asparagus setaceus ‘Pyramidalis’ – Tree Fern
016	Asplenium nidus – Bird’s Nest Fern
017	Beaucarnea recurvata – Ponytail Palm
018	Begonia x tuberhybrida cv. – Tuberous Begonia
019	Brassaia actinophylla – Schefflera, Octopus Tree
020	Calathea roseopicta - Calathea
021	Callistephus chinensis hybrids – Chinese Aster
022	Celosia argentea cv. – Celosia, Cockscomb
023	Chamaedorea elegans – Parlor Palm, Commodore Palm
024	Chamaelucium uncinatum – Waxflower
025	Chlorophytum comosum var. – Spider Plant
026	Chrysanthemum x morifolium cv. – Florist’s Chrysanthemum
027	Chrysanthemum x morifolium cv. – Spider Chrysanthemum
028	Codiaeum variegatum cv. – Croton
029	Consolida ambigua cv. – Larkspur
030	Cordyline terminalis – Ti Plant
031	Crassula argentea – Jade Plant
032	Cyclamen persicum cv. – Florist’s Cyclamen
033	Cymbidium cv. - Cymbidium orchid
034	Dahlia cv. - Dahlia
035	Delphinium elatum – Delphinium
036	Dendrobium spp. – Dendrobium Orchid
037	Dianthus caryophyllus cv. – Florist’s Carnation
038	Dieffenbachia spp. – Dumbcane
039	Dizygotheca elegantissima – False Aralia
040	Dracaena cv.
041	Dracaena marginata var. – Red-margined Dracaena
042	Echeveria elegans - Hens & Chickens
043	Epipremnum aureum cv. – Golden pothos, Devil’s Ivy
044	Erica carnea – Spring Heather
045	Eryngium planum – Blue Thistle
046	Eucalyptus cv. – Eucalyptus
047	Euphorbia milii var. – Crown of Thorns
048	Euphorbia pulcherrima cv. – Poinsettia
049	Eustoma grandiflorum – Lisianthus
050	Ficus benjamina ‘Exotica’ – Benjamin Fig, Weeping Fig
051	Ficus elastica ‘Decora’ – Rubber Tree
052	Ficus Lyrata – Fiddle Leaf Fig
053	Forsythia x intermedia – Forsythia
054	Freesia x hybrida – Freesia
055	Galax urceolata – Galax
056	Gaultheria shallon – Salal, Lemon Leaf
057	Gerbera jamesonii cv. – Gerbera, Transvaal Daisy
058	Gladiolus x hortulanus cv. – Gladiolus
059	Gypsophila elegans v. – Baby’s Breath
060	Hedera helix cv. – English Ivy
061	Helianthus annuus cv. – Sunflower
062	Hippeastrum x hybridum v. – Amaryllis
063	Hoya carnosa cv. – Wax Plant
064	Hyacinthus orientalis cv. – Hyacinth
065	Hydrangea macrophylla – Hydrangea
066	Hypericum spp. – Hypericum Berries
067	Iris spp. – Iris
068	Kalanchoe blossfeldiana cv. – Kalanchoe
069	Liatris spicata – Liatris
070	Lilium (Asiatic hybrids)
071	Lilium (Oriental hybrids)
072	Lilium cv. ‘Stargazer’ – Stargazer Lily
073	Lilium longiflorum cv. – Trumpet Easter Lily

Plants	
074	Limonium ferulaceum – Caspia, Misty Blue
075	Limonium sinuatum cv. - Statice
076	Maranta leuconeura cv. – Prayer Plant
077	Matthiola incana – Stock
078	Moluccella laevis – Bells of Ireland
079	Monstera deliciosa – Split-leaf Philodendron
080	Myrtus communis – Myrtle
081	Narcissus hybrid – Daffodil
082	Nephrolepis exaltata cv. – Boston Fern
083	Nephrolepis cordifolia cv. – Flat Fern
084	Pachystachys lutea – Shrimp Plant
085	Paeonia lactiflora cv. – Peony
086	Pedilanthus tithymaloides – Zigzag Plant
087	Pelargonium x hortorum - Zonal Geranium
088	Peperomia cv. – Peperomia
089	Phalaenopsis cv. – Phalaenopsis, Butterfly Orchid
090	Philodendron scandens oxycardium – Heartleaf Philodendron
091	Pittosporum tobira cv. – Pittosporum, Mock Orange
092	Plectranthus australis - Swedish Ivy
093	Polianthes tuberosa - Tuberose
094	Protea cv. – Protea
095	Ranunculus asiaticus - Ranunculus
096	Rhododendron cv. – Azalea
097	Rosa cv. – Hybrid Tea Rose
098	Rumohra adiantiformis – Leatherleaf Fern
099	Ruscus danae racemosa – Italian Ruscus
100	Ruscus hypophyllum – Israeli Ruscus, Butcher’s Broom Ruscus
101	Saintpaulia ionantha cv. – African Violet
102	Salix discolor cv. – Pussy Willow
103	Salix matsudana cv. – Curly Willow
104	Sansevieria trifasciata cv. – Sansevieria, Snake Plant
105	Schlumbergera truncata cv. – Thanksgiving cactus
106	Solidago canadensis – Solidago, Goldenrod
107	Spathiphyllum spp. – Spathiphyllum, Peace Lily
108	Stephanotis floribunda – Stephanotis, Bridal Wreath
109	Strelitzia reginae – Bird of Paradise
110	Syngonium podophyllum – Nephthytis
111	Tulipa cv. – Tulip
112	Xerophyllum tenax – Bear Grass
113	Zantedeschia aethiopica – Calla
114	Zamioculcas zamiifolia - ZZ plant
115	Zebrina pendula cv. – Wandering Jew
Pests	
116	Aphid - adult stage
117	Fungus Gnat - adult stage
118	Leaf Miner - adult stage damage
119	Mealybug - adult stage
120	Scale - adult stage
121	Snail/Slug - adult stage
122	Spider Mite - adult stage
123	Thrip - adult stage
124	Whitefly - adult stage
Diseases	
125	Anthraxnose - damage
126	Black Spot – damage
127	Botrytis – damage
128	Damping Off - damage
129	Mosaic Virus – damage
130	Powdery Mildew – damage
Tools	
131	#18 Florist's Wire
132	#24 Florist's Wire
133	#28 Florists Wire
134	#3 Ribbon
135	#9 Ribbon
136	#40 Ribbon
137	Anchor Tape
138	Boutonniere Pin
139	Bullion Wire
140	Candle Pick/Holder
141	Cardette/Card Holder
142	Casket Saddle
143	Cellophane

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Tools	
144	Chenille Stems
145	Corsage Pin
146	Dixon Pin
147	Dry Foam
148	Enclosure Card
149	Flat Aluminum Decorative Wire
150	Floral Knife
151	Floral Tape
152	Foam Bouquet Holder
153	Glue Gun
154	Greening Pins
155	Hyacinth Stake
156	Pick Machine & Metal Picks
157	Pin Holder (Frog)
158	Polyfoil
159	Sheet Moss
160	Spanish Moss
161	Stem Cutter
162	Styrofoam
163	Tulle
164	Water Picks
165	Water Tubes
166	Wet Floral Foam (Oasis)
167	Wire Cutter
168	Wire Easel
169	Wooden Pick
170	Wrist Corsage Holder