

FLORICULTURE

3 or 4 Member Team

I. PURPOSE

The purpose of this 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: Principles and Elements of 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 scan sheet and their own sharpened pencils for the event. They may bring a clean manila folder to protect their scan sheet. A pencil sharpener may not be available in each event room.
2. Team members may use their own battery-operated non-programmable calculators. Team members are not permitted to share calculators between teammates or among any other contestants.
3. No allowance will be made for malfunctioning or inoperable calculators. Electrical outlets will not be available for charging batteries, etc.
4. The "Universal Form C" scan sheet will be used for this CDE.
5. Blank paper will be made available by the contest provider.

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 30 minutes.
 - d. 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. Contest materials will be left 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 160 plants/tools/pests/diseases listed on the Texas 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.
3. A plant specimen may consist of any part of the plant. The plant must be the exact plant listed on the Texas Floriculture list.
4. Plants to be identified will be presented as intact, live specimens. Tools may be

either an intact item or high quality photograph. Photograph should be a minimum of 8.5" x 10" in size. Pest and diseases may be presented as an intact specimen, photograph or preserved specimen (herbarium sheet, insect mount).

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.
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 (300 points)

1. Contestants place six classes that are selected from the Placing Classes List.
2. All plants in a class will be from the same species or cultivar.
3. Some classes may contain cut flowers, greenery or container grown plants.
4. There will be classes from each of the following types:
 - a. 1 class of line flowers.
 - b. 1 class of form flowers.
 - c. 1 class of mass flowers.
 - d. 1 class of blooming container plants.
 - e. 1 class of foliage container plants.
 - f. 1 class of floral designs.
5. Classes will consist of four items per placing class.
6. Cut flower classes will consist of a minimum of three to a maximum of seven stems for container.
7. Classes will be designated by number and class name.
8. Contestants are given five minutes to evaluate each class.
9. 50 points are given for each correctly placed class.
10. Floral designs will be labeled by type (symmetrical, asymmetrical, round or crescent).

F. 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.

G. 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 alternate as noted:
 - a. 2012 Pricing and calculating a bill of materials *and* Facility safety
 - *i.e. calculating the retail and wholesale cost for a design*
 - *i.e. A student in the lab is using a chemical to clean buckets. What is the highest level of toxicity that might be noted on the label? a) caution, b) danger, c) warning*
 - b. 2013 Pricing and calculating a bill of materials *and* Evaluating the color wheel/ color schemes
 - *i.e. Chandler used maroon carnations, pink daisy poms, and a white filler. What color scheme does this represent? a) monochromatic, b) analogous, c) triadic*
 - c. 2014 Pricing and calculating a bill of materials *and* Selection of cut flowers/care and handling

- *i.e. Lani is processing Asiatic lilies, which of the following is the most correct answer concerning care and handling of these flowers?*
 - *process as soon as possible and place in a cooler,*
 - *leave anthers on the flowers to ensure allow them to open and increase vase life,*
 - *remove foliage below the water line, re-cut stems and change water on the third day*
- d. 2015 Pricing and calculating a bill of materials *and* Wiring techniques–
- *i.e. Mia is making a daisy corsage for a baby shower; what wiring method should she use?*
a) hook b) hairpin c) piercing d) stitch
- e. 2016 Pricing and calculating a bill of materials *and* Assessing Interiorscaping
- *i.e. Which of the following statements is most correct about African violets and Gloxina?*
a) *both of plants require watering in their cups*
b) *both plants can be watered from the top,*
c) *both plants must be watered from the bottom using a saucer*
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.

III. SCORING

Identification of Plant Materials.....600 points
 Placing Classes..... 300 points
 General Knowledge Examination.....100 points
 Problem Solving.....100 points

Total Points

Individual.....1,100 points

Team..... 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. Advisors will match for the high award.

B. Ties for individual awards shall be broken by substituting the word “individual” wherever the word “team” appears above.

V. REFERENCES

A. Some Materials Available from IMS: Printed materials

8942 Complete Set AgSc 362 – Horticultural Plant Production, IMS 8959 Complete Set AgSc 363 – Floral Design and Interior Landscape Management, IMS 8188 Complete Set AgSc 365 – Advanced Floral Design

VHS Videos/CD

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

9421NC Horticultura A to Z (CD-ROM) 9430NC Win 98 CD Floriculture CDE Placing

B. Other References (Not Available through IMS):

A Manual for Flower Judging. (1998) Prepared by Pi Alpha Xi National Honorary Society in Floriculture and Ornamental Horticulture. Available from the Department of Plant and Earth Sciences, c/o Dr. Terry Ferriss, University of Wisconsin – River Falls, 410 S. Third Street, River Falls, WI 54022-5001. (715) 425-3345.

Problem solving resources:

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

www.agriscience.delmar.com

Georgia Agriculture Curriculum Resource website: www.gaaged.org

Click on CDE's, CDE Exams On-line, Floriculture

C. Websites

Interiorscape Plants Database <<http://aggie-horticulture.tamu.edu/interiorscape/tamuhort.htm>

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

Additional Information

FLORICUTLURE PLACING CLASSES

- 1) One class of line flowers, which may include: *Antirrhinum majus* cv. – Snapdragon *Gladiolus x hortulanus* cv. – Gladiolus *Liatris spicata* – Liatris *Matthiola incana* – Stock *Mouccella laevis* cv. – Bells of Ireland
- 2) One class of form flowers, which may include: *Gerbera jamesonii* cv. – Gerbera *Lilium* cv. ‘Stargazer’ – Stargazer lily *Strelitzia reginae* cv. – Bird of paradise *Lilium* cv. ‘Asian’ – Asiatic lily
- 3) One class of mass flowers, which may include: *Chrysanthemum morifolium* cv. – Spider mum *Chrysanthemum morifolium* cv. – Daisy mum *Dianthus caryophyllus* cv. – Standard carnation *Rose* cv. - Rose
- 4) One class of blooming container plants, which may include: *Kalanchoe blossfeldiana* cv. – Kalanchoe *Rhododendron* cv. – Azalea *Saintpaulia ionantha* cv. – African violet *Chrysanthemum x monifolium* cv – Florist’s chrysanthemum
- 5) 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* ‘Decora’ – Rubber tree *Nephrolepis exaltata* cv. – Boston fern *Spathiphyllum spp.* – Spathiphyllum, Peace Lily
- 6) One class of floral designs, which may include the following design styles: Symmetrical triangle Asymmetrical triangle Crescent Round

FLORICULTURE PLANT/PEST/DISEASE/TOOL LIST

1. *Adiantum* spp. – Maidenhair Fern
2. *Aechmea* cv. – Bromeliad
3. *Agapanthus africanus* – African Lily
4. *Aglaonema commutatum* cv. – Aglaonema, Chinese Evergreen
5. *Alpinia purpurata* – Red Ginger
6. *Alstroemeria aurantiaca* – Alstroemeria, Peruvian Lily
7. *Antirrhinum majus* cv. – Snapdragon
8. *Araucaria heterophylla* – Norfolk Island Pine
9. *Asparagus densiflorus* ‘Myriocladus’ – Ming Fern
10. *Asparagus densiflorus* ‘Sprengeri’ – Sprengeri Fern
11. *Asparagus setaceus* – Plumosa Fern
12. *Asparagus setaceus* ‘Pyramidalis’ – Tree Fern
13. *Asplenium nidus* – Bird’s Nest Fern
14. *Beaucarnea recurvata* – Ponytail Palm
15. *Begonia x tuberhybrida* cv. – Tuberous Begonia
16. *Brassaia actinophylla* – Schefflera, Octopus Tree
17. *Calathea roseopicta* - Calathea
18. *Callistephus chinensis* hybrids – Chinese Aster
19. *Celosia argentea* cv. – Celosia, Cockscomb
20. *Chamaedorea elegans* – Parlor Palm, Commodore Palm
21. *Chamelaucium uncinatum* – Waxflower
22. *Chlorophytum comosum* var. – Spider Plant
23. *Chrysanthemum x monifolium* cv. – Florist’s Chrysanthemum

24. *Chrysanthemum x monifolium* cv. – Spider Chrysanthemum
25. *Codiaeum variegatum* cv. – Croton
26. *Consolida ambigua* cv. – Larkspur
27. *Cordyline terminalis* – Ti Plant
28. *Crassula argentea* – Jade Plant
29. *Cyclamen persicum* cv. – Florist's Cyclamen
30. *Cynara* spp. - Artichoke
31. *Dahlia* cv. - Dahlia
32. *Delphinium elatum* – Delphinium
33. *Dendrobium* spp. – Dendrobium Orchid
34. *Dianthus caryophyllus* cv. – Florists Carnation
35. *Dieffenbachia* spp. – Dumbcane
36. *Dizygotheca elegantissima* – False Aralia
37. *Dracaena deremensis* 'Janet Craig' – Green Corn Plant Dracaena
38. *Dracaena fragrans* 'Massangeana' – Corn Plant Dracaena
39. *Dracaena marginata* var. – Red-margined Dracaena
40. *Epipremnum aureum* cv. – Golden pothos, Devil's Ivy
41. *Erica carnea* – Spring Heather
42. *Eryngium planum* – Blue Thistle
43. *Eucalyptus* cv. – Eucalyptus
44. *Euphorbia milii* var. – Crown of Thorns
45. *Euphorbia pulchemima* cv. – Poinsettia
46. *Eustoma grandiflorum* – Lisianthus
47. *Ficus benjamina* 'Exotica' – Benjamin Fig, Weeping Fig
48. *Ficus elastica* 'Decora' – Rubber Tree
49. *Ficus lyrata* – Fiddleleaf Fig
50. *Forsythia x intermedia* – Forsythia
51. *Freesia x hybrida* – Freesia
52. *Galax urceolata* – Galax
53. *Gaultheria shallon* – Salal, Lemonleaf
54. *Gerbera jamesonii* cv. – Gerbera, Transvaal Daisy
55. *Gladiolus x hortulanus* cv. – Gladiolus
56. *Gypsophila elegans* v. – Baby's Breath
57. *Hedera helix* cv. – English Ivy
58. *Helianthus annuus* cv. – Sunflower
59. *Hippeastrum x hybridum* v. – Amaryllis
60. *Hoya carnosa* cv. – Wax Plant
61. *Hyacinthus orientalis* cv. – Hyacinth
62. *Hydrangea macrophylla* – Hydrangea
63. *Hypericum* spp. – Hypericum Berries
64. *Iris* spp. – Iris
65. *Kalanchoe blossfeldiana* cv. – Kalanchoe
66. *Liatris spicata* – Liatris
67. *Lilium* cv. 'Oriental' – Asiatic Lily
68. *Lilium* cv. 'Stargazer' – Stargazer Lily
69. *Lilium longiflorum* cv. – Trumpet Easter Lily
70. *Limonium ferulaceum* – Caspia, Misty Blue
71. *Limonium perezii* – Sea Lavender Statice
72. *Limonium sinuatum* cv. - Statice
73. *Maranta leuconeura* cv. – Prayer Plant
74. *Matthiola incana* – Stock
75. *Moluccella laevis* – Bells of Ireland

76. *Monstera deliciosa* – Split-leaf Philodendron
77. *Myrtus communis* – Myrtle
78. *Narcissus hybrid* – Daffodil
79. *Nephrolepis exaltata* cv. – Boston Fern
80. *Nephrolepis cordifolia* cv. – Flat Fern
81. *Pachystachys lutea* cv. – Shrimp Plant
82. *Paeonia lactiflora* cv. – Peony
83. *Pedilanthus tithymaloides* – Zigzag Plant
84. *Peperomia* cv. – Peperomia
85. *Phalaenopsis* cv. – Phalaenopsis, Butterfly Orchid
86. *Philodendron scandens oxycardium* – Heartleaf Philodendron
87. *Pittosporum tobira* cv. – Pittosporum, Mock Orange
88. *Plectranthus australis* - Swedish Ivy
89. *Polianthes tuberosa* - Turberose
90. *Protea* cv. – Protea
91. *Ranunculus asiaticus* - Ranunculus
92. *Rhododendron* cv. – Azalea
93. *Rosa* cv. – Hybrid Tea Rose
94. *Rumohra adiantiformis* – Leatherleaf Fern
95. *Ruscus hypoglossum* – Italian Ruscus
96. *Ruscus hypophyllum* – Israeli Ruscus, Butcher's Broom Ruscus
97. *Saintpaulia ionantha* cv. – African Violet
98. *Salix discolor* cv. – Pussy Willow
99. *Salix matsudana* cv. – Curly Willow
100. *Sansevieria trifasciata* cv. – Sansevieria, Snake Plant
101. *Schlumbergera truncata* cv. – Thanksgiving cactus
102. *Solidago canadensis* – Solidago, Goldenrod
103. *Spathiphyllum spp.* – Spathiphyllum, Peace Lily
104. *Stephanotis floribunda* – Stephanotis, Bridal Wreath
105. *Strelitzia reginae* - Bird of Paradise
106. *Syngonium podophyllum* – Nephthytis
107. *Tulipa* cv. – Tulip
108. *Viburnum opulus* cv. - *Viburnum*
109. *Xerophyllum tenax* – Bear Grass
110. *Zantedeschia aethiopica* – Calla
111. *Zebrina pendula* cv. – Wandering Jew

Pests

112. Aphid - adult stage
113. Fungus Gnat - adult stage
114. Leaf Miner - adult stage
115. Mealybug - adult stage
116. Scale - adult stage
117. Snail/Slug - adult stage
118. Spider Mite - adult stage
119. Thrip - adult stage
120. Whitefly - adult stage

Diseases

121. Anthracnose - damage
122. Black Spot – damage
123. Botrytis – damage
124. Damping Off - damage
125. Mosaic Virus – damage
126. Powdery Mildew – damage

Tools

127. Anchor Tape
128. Cardette/Card Holder
129. Casket Saddle
130. Chenille Stems
131. Water Tubes
132. Water Picks
133. Wire Cutter
134. Wrist Corsage Holder
135. Greening Pins
136. Floral Tape
137. Pick Machine & Metal Picks
138. Nosegay Holder
139. Wet Floral Foam (Oasis)
140. Floral Knife
141. Florist Wire
142. Enclosure Card
143. Tulle
144. #3 Ribbon
145. #9 Ribbon
146. #40 Ribbon
147. Styrofoam
148. Stem Cutter
149. Sheet Moss
150. Wire Easel
151. Wooden Pick
152. Dixon Pin
153. Polyfoil
154. Cellophane
155. Corsage Pin
156. Boutonniere Pin
157. Pin Holder (Frog)
158. Glue Gun
159. Candle Pick/Holder
160. Dry Foam