

Floriculture

Middle School Division

FFA

Purpose and Overview

Revised:11/24

The Floriculture CDE is designed to promote the study of and interest in production and retailing of flowers, plants and foliage through the agricultural education curriculum. It typically is held at the Delaware FFA State Convention.

Objectives

- Identify plants, plant materials, supplies and equipment utilized in the floriculture industry.
- Demonstrate an understanding of the biological and scientific principles of plant growth and development.
- Develop the skills underlying propagation, variety development, growth requirements, growing techniques, harvesting, marketing and maintenance of established floriculture plants.
- Identify and recommend solutions for plant disorders.
- Demonstrate the use of elements and principles of design and develop related skills.
- Evaluate marketable floral products for quality and cultural perfection in the retail industry.
- Identify, select, operate and maintain appropriate supplies and equipment for floriculture production, design and marketing.
- Demonstrate the use of safety procedures and practices in floriculture operations.
- Understand the operation, management and maintenance of facilities for floriculture operations.
- Demonstrate interpersonal skills necessary for successful employment in the floriculture industry.
- Demonstrate proper sales and customer service skills.
- Demonstrate general business practices appropriate to the floriculture industry.
- Effectively work together as a team.

Eligibility

Students that are an active member of a chartered Delaware FFA Middle School Chapter may participate; however, members who have participated in a previous state winning team are ineligible. All students competing must have a Delaware FFA Waiver form completed and signed for Floriculture.

Event Procedure

- A. Each team will be comprised of up to four members. All four scores will be used to determine total team score.
- B. Participants must wear FFA Official Dress for this event.
- C. Under no circumstances will any participant be allowed to touch or handle plant material during the event except during the corsage construction and flower arrangement.
- D. Any communication between participants during the event will be sufficient cause to eliminate the team from the event. The exception to this is the team activity.
- E. Any participant caught cheating during the event will be expelled from the event.
- F. All participants are expected to be prompt at their stations throughout the event.
- G. The event chair will assign the participants to groups so that when possible, no two participants from the same school will be in the same group, except for the team activity.
- H. No team, participant, or coach will be permitted into the event facilities before or during the event, except for advisors helping to facilitate the running of the CDE.
- I. Any assistance given to a participant from any source during the event, other than a floriculture official, will be sufficient cause to eliminate the team from the event.
- J. All participants will be given an identification number by which they will be designated throughout the event.
- K. Participants will not be allowed to possess any personal electronic devices (i.e. cell phones, smart watches, air pods, etc.) other than those approved by event officials. Participants who possess personal electronic devices without prior approval of the event officials will be disqualified from the event.
- L. Students must use only the provided material and the required materials students must provide. Students should not bring hard goods (wire, ribbon, etc.).
- M. There will be a judges/volunteer training prior to the competition to acclimate judges to the rubrics and the flow of the event.

Event Format

This event will have three phases: identification of plant materials, body flower preparation and construction or floral arrangement, and the team activity of the general knowledge exam.

A. Materials students need to provide:

1. Two sharpened No. 2 pencils
2. Scissors
3. Floral Shears (no floral knives)

B. Team Activity - 100 points

1. General Knowledge Examination- 100 points Teams will answer 50 multiple choice questions that cover the areas of the floriculture industry reflected in the event objectives. This phase of the event will test participants' knowledge and understanding of basic biological and scientific principles of producing and marketing flowers, plants and foliage. Each team will be allowed 50 minutes to complete the exam. Each answer has a value of two points.

C. Individual Activities - 300 Points

1. Identification of plant materials and equipment (200 points)

Fifty specimens from the floriculture plant and equipment identification list will be displayed for participants to identify by technical and common names. A number will designate each specimen. Four points will be awarded for each specimen that is correctly identified. Each participant will be allowed 25 minutes to complete this phase of the event. ID will be completed using live specimens (as much as possible) in a rotation style. This is completely separate from high school. The set up of it could look like 5 tables with 10 plants per table, 5 minutes a table.

2. Live Floral Piece (a "Body Flower Piece" in odd years, a "Triangular Floral Arrangement" in even years)

A. Body Flower Piece (75 points) - odd years only

Individually, participants will prepare and construct a body flower piece. All plant and non-plant materials needed to construct it will be provided. Each participant will be allowed 45 minutes to complete the body flower piece. The body flower piece will be scored using the "Making and Packaging a Body Flower" grading rubric presented by the National FFA Floriculture CDE Handbook. Provided materials will be: pre-cut ribbon, focal flower, greens, filler, bag, wire, floral tape and pin.

B. Triangular Floral Arrangement (100 points) - even years only

Individually, participants will be given a set amount of floral supplies to construct a triangular arrangement. Members will be allotted 45 minutes to complete the arrangement. Scoring criteria are presented on the National FFA Floriculture 'Floral Arrangement Practicum' which will be recorded by a judge. Explanation of floral arrangement terms can be found on this scorecard. See High School Floriculture Score Sheet.

SCORING

<u>Phase</u>	<u>Individual Points</u>	<u>Team Points total</u>
ID	200 Points	800 Points possible
Live Floral	75 Points (Odd Years) 100 Points (Even Years)	300 Points Possible (Odd Years) 400 Points Possible (Even Years)
Team Activity	n/a	100 Points Possible
Total Possible:	275 Points (Odd Years) 300 Points (Even Years)	1200 Points Possible (Odd Years) 1300 Points Possible (Even Years)

Tie Breaker

Ties will be broken using the following procedure in this specific order, unless otherwise noted by the CDE Chair:

1. Individual tiebreakers will be settled in the following order: :

1. Highest "Live Floral Piece" practicum
2. Highest ID

2. Team tiebreakers will be settled in the following order:

1. Highest test score.
2. Highest total "Live Floral Piece."

Awards

Awards will be presented during a session at the Delaware FFA State Convention. In a team event, the top 3 individuals in the state will be recognized on stage. The winning team will be awarded a certificate.

References

This list of references is not intended to be all-inclusive.

- Other sources may be utilized, and teachers are encouraged to use the best instructional materials available. The following list contains references that may prove helpful during event preparation.
- Past CDE materials and other resources are available on FFA.org.
- Principal of Floral Design, Pat Diehl Scafe, James M. DePrince – Goodheart Wilcox Publisher. www.g-w.com
- The AIFD Guide to Floral Design: Terms, Techniques, and Traditions – The American Institute of Floral Design.
- Introduction to Horticulture Science and Technology. 5th edition, 2015. Schroeder, Seagle Felton, Ruter, Interstate Publishers, Inc.
- Introductory Horticulture. Carroll Shry, Edward Reiley. Eighth Edition.
- Greenhouse Operation and Management. Paul V. Nelson. Seventh Edition. (Specific reference for the disorders rotational practicum)
- Ball Publishing: Ball Redbook, Volume 1&2, 18th Edition.

Scantron

HORTICULTURE
CDE# 105482 /

Delaware FFA Floriculture CDE Scantron

Incorrect Marks Correct Mark

Team Number: _____ State: _____ Last Name: _____ First Name: _____

Grid for marking answers (A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z) for questions 1-24.

Place	Class	Points
1	1234	1243
2	1243	1243
3	1324	1324
4	1342	1342
5	1423	1423
6	1432	1432
7	2134	2134
8	2143	2143
9	2314	2314
10	2341	2341
11	2413	2413
12	2431	2431
13	3124	3124
14	3142	3142
15	3214	3214
16	3241	3241
17	3412	3412
18	3421	3421
19	4123	4123
20	4132	4132
21	4213	4213
22	4231	4231
23	4312	4312
24	4321	4321

Team Ind. 1.00
 TEAM ACTIVITY SCORE: _____
 ANNUAL PRACTICUM SCORE: _____
 ROTATIONAL PRACTICUM SCORE: _____

GENERAL KNOWLEDGE EXAM
50 QUESTIONS @ 4 PTS EACH 200 POINTS

Exam	Points
1	28
2	27
3	28
4	29
5	30
6	31
7	32
8	33
9	34
10	35
11	36
12	37
13	38
14	39
15	40
16	41
17	42
18	43
19	44
20	45
21	46
22	47
23	48
24	49
25	50

PROBLEM SOLVING
5 QUESTIONS @ 20 PTS EACH 100 POINTS

Exam	Points
1	20
2	20
3	20
4	20
5	20

Delaware FFA Floriculture CDE

IDENTIFICATION OF PLANT MATERIAL & EQUIPMENT

50 SPECIMENS @ 4 PTS EACH = 200 POINTS

DO NOT WRITE IN THIS SECTION

Number of Specimen	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
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	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

ID List & Rubrics

See [National Floriculture CDE Handbook](#) for originals if list/rubrics attached here don't print well.

Floriculture Plant Identification List

#	Botanical Name	Common Name
101	<i>Aechmea fasciata</i> cv.	Bromeliad
102	<i>Ageratum houstonianum</i>	Floss Flower
103	<i>Alocasia amazonica</i>	Amazon elephant ear
104	<i>Aloe vera</i>	Aloe plant
105	<i>Alstroemeria hybrid</i> cv.	Peruvian Lily
106	<i>Anemone coronaria</i>	Wind Flower
107	<i>Anethum graveolens</i> cv.	Dill
108	<i>Angelonia hybrid</i> cv.	Angelonia
109	<i>Anthurium x andraeanum</i> cv.	Flamingo Plant
110	<i>Antirrhinum majus</i> cv.	Snapdragon
111	<i>Aphelandra squarrosa</i> cv.	Zebra Plant
112	<i>Araucaria heterophylla</i>	Norfolk Island Pine
113	<i>Asparagus densiflorus</i>	Fox Tail Fern
114	<i>Aster Amellus</i>	Aster
115	<i>Astilbe hybrid</i> cv.	Astilbe
116	<i>Begonia x semperflorens - cultorum</i>	Wax Begonia
117	<i>Begonia x tuberhybrida</i> cv.	Tuberous Begonia
118	<i>Caladium x hortulanum</i> cv.	Caladium
119	<i>Calathea insignis</i>	Rattlesnake plant
120	<i>Calibrachoa hybrid</i> cv.	Million Bells
121	<i>Callistephus chinensis</i> cv.	China Aster
122	<i>Campanula hybrid</i> cv.	Bell Flower
123	<i>Canna x generalis</i> cv.	Canna
124	<i>Capsicum annuum</i>	Ornamental Pepper
125	<i>Celosia argentea</i> cv.	Cockscomb
126	<i>Centaurea cyanus</i>	Cornflower, Bachelor's Button
127	<i>Chamaedorea elegans</i>	Parlor Palm
128	<i>Chamelaucium uncinatum</i>	Waxflower
129	<i>Cholorophytum comosum</i> cv.	Spider Plant
130	<i>Chrysanthemum x morifolium</i>	Chrysanthemum
131	<i>Clematis hybrid</i> cv.	Clematis
132	<i>Codiaeum variegatum pictum</i>	Croton
133	<i>Colocasia esculenta</i>	Taro
134	<i>Cordyline fruticosa</i>	Ti Plant
135	<i>Crassula argentea</i>	Jade Plant
136	<i>Cycas revoluta</i> cv.	Sago Palm
137	<i>Cyclamen x persicum</i> cv.	Cyclamen
138	<i>Cymbidium</i> cv.	Cymbidium Orchid
139	<i>Cymbopogon</i> cv.	Lemongrass (herb)
140	<i>Dahlia hybrid</i> cv.	Dahlia
141	<i>Delosperma</i>	Ice Plant
142	<i>Delphinium consolida</i> cv.	Larkspur
143	<i>Dendrobium</i> cv.	Dendrobium Orchid
144	<i>Dianthus caryophyllus</i> cv.	Carnation
145	<i>Dracaena Marginata</i>	Red Edge Dracaena
146	<i>Echinocactus</i> cv.	Barrel Cactus
147	<i>Epipremnum aureum</i> cv.	Golden Pothos
148	<i>Erica carnea</i> cv.	Winter Heath

#	Botanical Name	Common Name
149	<i>Eucalyptus polyanthemos</i>	Silver Dollar Eucalyptus
150	<i>Euphorbia pulcherrima</i> cv.	Poinsettia
151	<i>Eustoma grandiflorum</i>	Lisianthus Prairie gentian
152	<i>Exacum affine</i>	Persian Violet
153	<i>Ficus benjamina</i> cv	Benjamin Fig
154	<i>Ficus elastica</i> cv	Rubber Plant
155	<i>Ficus lyrata</i>	Fiddle Leaf Fig
156	<i>Fragaria x ananassa</i> cv.	Strawberry Plant
157	<i>Freesia x hybrida</i>	Freesia
158	<i>Gardenia jasminoides</i>	Gardenia
159	<i>Gerbera jamesonii</i>	Gerbera Daisy
160	<i>Gladiolus x hortulanus</i> cv.	Gladiolus
161	<i>Gomphrena hybrid</i> cv.	Globe Amaranths
162	<i>Gypsophila elegans</i> cv.	Baby's Breath
163	<i>Hedera helix</i> cv.	English Ivy
164	<i>Helianthus annuus</i>	Sunflower
165	<i>Heemerocallis</i> cv.	Daylily
166	<i>Hibiscus</i> spp.	Hibiscus
167	<i>Hippeastrum hybrid</i> cv.	Amaryllis
168	<i>Hosta</i> cv.	Hosta Plantain Lily
169	<i>Hoya carnosa</i>	Wax Plant
170	<i>Hyacinthus orientalis</i> cv.	Hyacinth
171	<i>Hydrangea macrophylla</i>	Big Leaf Hydrangea
172	<i>Hypoestes phyllostachya</i>	Polka-Dot plant
173	<i>Impatiens hawkeri</i>	New Guinea Impatiens
174	<i>Impomoea batatas</i> cv.	Sweet potato vine
175	<i>Iris x xiphium</i> cv.	Dutch Iris
176	<i>Justica brandegeana</i>	Shrimp Plant
177	<i>Kalanchoe x blossfeldiana</i> cv.	Kalanchoe
178	<i>Leucanthemum x superbum</i>	Shasta Daisy
179	<i>Liatris spicata</i>	Blazing stars
180	<i>Lilium hybrid</i> cv.	Asiatic or Oriental Lily
181	<i>Limonium sinuatum</i>	Statice
182	<i>Lobularia maritima</i>	Alyssum
183	<i>Mandevilla</i> spp.	Rock Trumpet
184	<i>Maranta leuconeura</i>	Prayer Plant
185	<i>Matthiola incana</i> cv.	Stock
186	<i>Monstera deliciosa</i>	Split Leaf Philodendron
187	<i>Narcissus hybrid</i> cv.	Daffodil or Narcissus
188	<i>Nephrolepis exaltata</i> cv.	Boston Fern
189	<i>Ocimum basilicum</i> cv.	Basil
190	<i>Opuntia</i> cv.	Cactus
191	<i>Paeonia</i> cv.	Peony
192	<i>Paphiopedilum hybrid</i> cv.	Ladyslipper Orchid
193	<i>Pelargonium peltatum</i> cv.	Ivy Geranium
194	<i>Pelargonium x hortorum</i> cv.	Zonal Geranium
195	<i>Pentas hybrid</i> cv.	Pentas star flower
196	<i>Peperomia</i> sp.	Peperomia

#	Botanical Name	Common Name
197	<i>Petroselinum crispum</i> cv.	Parsley
198	<i>Petunia x hybrida</i> cv.	Petunia
199	<i>Phalaenopsis</i> cv.	Moth Orchid
200	<i>Philodendron scandens oxycardium</i>	Heartleaf Philodendron
201	<i>Pilea cadierei</i>	Aluminum Plant
202	<i>Portulaca oleracea</i> cv.	Portulaca/ Moss rose
203	<i>Primula malacoides</i> cv.	Primrose
204	<i>Protea</i> sp.	Protea
205	<i>Ranunculus hybrid</i> cv.	Ranunculus/ Buttercups
206	<i>Rhododendron simsii</i> cv.	Azalea
207	<i>Rumohra adiantiformis</i>	Leatherleaf Fern
208	<i>Saintpaulia ionantha</i> cv.	African Violet
209	<i>Salvia splendens</i> cv.	Salvia
210	<i>Sansevieria trifasciata</i> cv.	Snake Plant
211	<i>Schefflera arboricola</i>	Dwarf Schefflera
212	<i>Schlumbergera bridgesii</i>	Christmas Cactus
213	<i>Sempervivum hybrid</i> cv.	Hens and Chicks

#	Botanical Name	Common Name
214	<i>Senecio cineraria</i>	Dusty Miller
215	<i>Senecio rowleyanus</i>	String of Pearls
216	<i>Solenostemon scutellarioides</i>	Coleus
217	<i>Solidago hybrid</i> cv.	Solidago
218	<i>Spathiphyllum</i>	Peace Lily
219	<i>Stephanotis floribunda</i>	Stephanotis
220	<i>Strelitzia reginae</i>	Bird of Paradise
221	<i>Syngonium podophyllum</i>	Arrowhead plant
222	<i>Tagetes species</i> cv.	Marigold
223	<i>Tillandsia spp.</i>	Air Plant
224	<i>Tradescantia zebrina</i>	Inch Plant
225	<i>Tulipa</i> cv.	Tulip
226	<i>Verbena hybrid</i> cv.	Verbena
227	<i>Viola x wittrockiana</i> cv.	Pansy
228	<i>Zantedeschia hybrid</i> cv.	Calla Lily
229	<i>Zinnia</i> cv.	Zinnia
230		

Floriculture Equipment and Supply Identification List

301	#100 Ribbon (satin, sheer, wired)
302	#3 Ribbon (satin, sheer, wired)
303	#40 Ribbon (satin, sheer, wired)
304	#9 Ribbon (satin, sheer, wired)
305	18-Gauge floral wire
306	28-Gauge floral wire
307	Anvil-and-blade pruner
308	Backflow preventer
309	Bouquet sleeve
310	Bulb planter
311	Cardette
312	Cell pack containers
313	Ceramic container
314	Chemical resistant gloves
315	Chenille stem
316	Coconut coir
317	Compressed air sprayer
318	Corsage box
319	Corsage pin
320	Corsage snips
321	Drip emitter, irrigation
322	Dry foam
323	Dust mask
324	Duster
325	Ellepot propagation cubes
326	Enclosure card
327	Fern greening pins
328	Fertilizer injectors
329	Floral adhesive
330	Floral foam
331	Floral knife
332	Floral preservative
333	Floral stem tape

334	Fogger
335	Gas mask
336	Glass vase
337	Glue gun
338	Glue pan
339	Glue sticks
340	Granular fertilizer
341	Greenhouse thermostat
342	Hanging basket
343	Hearing protection
344	Hook-and-blade pruners (bypass pruners)
345	Hose punch
346	Hose repair coupling
347	Hose-end repair fitting
348	Hose-end sprayer
349	Hose-end washer
350	Impulse sprinkler
351	Drip Irrigation tape
352	Irrigation timer
353	Mist nozzle (mist bed)
354	Nosegay holder
355	Nursery container
356	Oscillating sprinkler
357	Peat moss
358	Peat pots
359	Pest strips
360	pH testing meter
361	Polyethylene film
362	Polyethylene pipe
363	Pot covers
364	Propagation mat
365	Propagation trays
366	PVC (polyvinylchloride) pipe
367	PVC pipe cutter

368	Resin-coated fertilizer
369	Respirator
370	Ribbon shears
371	Rice hulls
372	Rockwool propagation cubes
373	Rose and stem flower stripper
374	Safety goggles
375	Sand
376	Scoop shovel
377	Shade fabric
378	Sharpening stone
379	Sheet moss
380	Siphon injector
381	Soil moisture meter
382	Solenoid valve
383	Spaghetti tubing (1/4" diameter or less)
384	Spanish moss
385	Sphagnum moss
386	Spray suit
387	Square point (flat) shovel
388	Styrofoam
389	Surestik cling
390	Tulle
391	Vermiculite
392	Water breaker
393	Water picks
394	Water soluble fertilizer
395	Water tubes
396	Waterproof container tape
397	Wire cutter
398	Wooden pick
399	Wrist corsage holder

