



Georgia FFA Association

Floriculture CDE - Senior Division

I. OVERVIEW

The Floriculture Career Development Event tests the participant's knowledge and skill in various aspects of the industry. The team event includes identification of plant materials and disorders, as well as a hands-on problem solving and written exam involving the production, use of plant material and their maintenance, related products, equipment and services.

II. PURPOSE

To stimulate career interest, encourage proficiency development, and recognize excellence in students of floriculture production and maintenance through the agriculture education curriculum.

III. ELIGIBILITY

This event is open to students in grades 9-12 who are agricultural education students and are paid members of a chartered FFA chapter. Each member of the team must be a member of the chapter registering them, and each student's name must appear on the chapter's FFA roster at least 10 days prior to competition above the chapter level.

IV. SPECIAL NEEDS REQUEST

To report any special needs or request special services for a student to compete in a Career Development Event or FFA Award area (Area or State level), it is the responsibility of the FFA advisor to provide a detailed and specific request and explanation in writing. Requests should include written documentation from the school system verifying the IEP and need being requested. Written requests must be submitted to the CDE Superintendent prior to registering for the CDE/event (at least 3 weeks prior to the date of competition).

V. RULES

1. Each Chapter may enter one team at the regional competition. **Team Make-up:** A team representing a chapter will consist of four members. With a four member team, **all four** individual scores will be added to determine the team score.
2. Under no circumstances will any participant be allowed to touch or handle plant materials or other specimens during the event.
3. It is highly recommended that students wear official dress as outlined in the official FFA manual.
4. Neither coaches nor teachers may enter the competition area until the event superintendent announces the end of the event and areas are open to be reviewed.
5. Each participant must have the following tools: clean clipboard, 2 pencils, hand lens, and a non-programmable calculator. At the state level, additional tools may be required for team and growing procedure activities, tools needed will be announced by the CDE Superintendent prior to the event. The calculator **MAY ONLY** have these functions: addition, subtraction, multiplication, division, equals, percent, square root, +/- key and one memory register. No graphing or programmable calculators will be allowed.
6. Swapping or sharing tools (calculators, scales, clipboards, etc.) with other participants will only be permitted at the discretion/permission of the CDE Superintendent.
7. This event will follow the general procedure established for all Georgia FFA career development events.
8. The State FFA executive committee and their appointees will be in charge of this event.
9. The top two teams from each area will advance to state competition.



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VI. EVENT FORMAT

Area Event:

The career development event will be conducted in FOUR PHASES as follows:

	<u>Points</u>
Identification of Plants, Tools and Materials: Twenty-five specimens from the Georgia Floriculture Plant List and Horticulture Tool and Materials List will be displayed for contestants to identify. Ten points will be awarded for each correct answer, and participants have 25 minutes to complete this event phase.	250
General Knowledge: The general knowledge section will consist of twenty-five questions covering all areas of the floriculture industry. Ten points will be awarded for each correct answer, and participants have 25 minutes to complete this phase.	250
Problem Solving: This phase will consist of five problem solving questions. Twenty points will be awarded for each correct answer, and participants have 20 minutes to complete this phase. The problem solving questions will concentrate on a designated areas: <ol style="list-style-type: none">1. Media Volume2. Area and Volume3. Chemical and fertilizer application4. Irrigation5. Pricing	100
Disorder Identification: Contestants will be required to identify plant disorders including diseases, insects, weeds, and nutritional disorders and specify, if requested, those pesticides or other treatments necessary to remedy the problem. Items for this phase of the career development event will be selected from the Disorders List. Ten points will be awarded for each correct answer, and participants have 20 minutes to complete this event phase.	100
Total Points per Individual	700



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State Event:

The career development event will be conducted in SIX PHASES as follows:

	<u>Points</u>
Identification of Plants, Tools and Materials: Twenty-five specimens from the Georgia Floriculture Plant List and Horticulture Tool and Materials List will be displayed for contestants to identify. Ten points will be awarded for each correct answer, and participants have 25 minutes to complete this event phase.	250
General Knowledge: The general knowledge section will consist of twenty-five (25) questions covering all areas of the floriculture industry. Ten points will be awarded for each correct answer, and participants have 25 minutes to complete this phase.	250
Problem Solving: This phase will consist of five problem solving questions. Twenty points will be awarded for each correct answer, and participants have 20 minutes to complete this phase. The problem solving questions will concentrate on a designated areas: <ol style="list-style-type: none">1. Media Volume2. Area and Volume3. Chemical and fertilizer application4. Irrigation5. Pricing	100
Disorder Identification: Contestants will be required to identify plant disorders including diseases, insects, weeds, and nutritional disorders and specify, if requested, those pesticides or other treatments necessary to remedy the problem. Items for this phase of the career development event will be selected from the Disorders List. Ten points will be awarded for each correct answer, and participants have 20 minutes to complete this event phase.	100
Growing Procedures <u>One of the following events</u> will be completed at the state level only on an individual basis. Twenty minutes will be allowed for this section including questions from the judges.	100
Potting of Young Plants (Plugs or Liners) - Participants will be asked to plant young plants in the pots provided. Each participant will be given a group of young plants from which to select their transplants from; an appropriate pot or pots; potting medium at the correct moisture level, ID stake and a marking pencil. Scoring criteria are presented on the plant potting practicum scorecard to be recorded by a judge.	
Asexual Propagation of Plants - Each participant will be provided the parent plant materials and all other materials needed to propagate plants asexually. Using the available materials, participants will take cuttings from the plant before them and stick them in rooting media labeled correctly. Participants should sanitize all equipment and use appropriately in a safe manner. Scoring criteria are presented on the asexual plant propagation scorecard to be recorded by a judge.	



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Pinching Plants - A plant will be placed before each participant. The participant will be given instructions as to what they are to do to the plant by the event assistant in charge of the practicum. Participants will be judged on the procedures they follow in pinching the plant. Scoring criteria are presented on the pinching plant scorecard which will be recorded by a judge.

Team Activity (300 points)

Each team will perform an assignment routinely performed in some phase of the floriculture industry that requires teamwork. Prior to the event, the Floriculture Career Development Event committee will select a theme and series of floriculture industry assignments that span the breadth of the industry from production to design. These tasks will be described in situational terms for presentation to each team. Forty-five minutes will be allowed for completing the activity. There will be an additional fifteen minutes for preparation and clean up. All materials needed to complete the assignment will be provided.

The type of assignments that may be used in this phase of the event are but are not limited to:

- Prepare floral products for an event.
- Prepare and pack floral products for shipping and updating inventory.
- Create a floral product display.
- Create a greenhouse production and task schedule to meet the needs of a given customer

Scoring criteria for the team preparation and presentation are on the team activity scorecard which will be recorded by a judge.

VII. SCORING

Participant scores are the sum of the four phases of the event, and team scores are the sum of **all four** member scores.

Possible points are as follows:

<u>Phase</u>	<u>Member Possible Points</u>	<u>Team Possible Points</u>
Identification of Plant Materials	250	1000
General Knowledge	250	1000
Problem Solving	100	400
Disorder Identification	100	400
Growing Procedures (state only)	100	400
Team Activity (state only)		300
Total	800	3500



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VIII. TIE BREAKERS

In the case of tie, individual or team scores will determine the final placing by comparing, in order, scores for the following:

1. Written Exam
2. Plant Identification
3. Team Activity
4. Disorders
5. Problem Solving
6. Growing Procedures

IX. AWARDS

Awards shall be determined each year by the Board of Trustees of the Georgia FFA Foundation. This event is made possible through the Georgia FFA Foundation as a special project of an industry sponsor or from the Foundation general fund. Minimum awards will recognize the first place individual in each area, and the first and second individuals at the state level.

X. REFERENCES

Floriculture: From Greenhouse Production to Floral Design, Interstate
Horticulture Today, Goodheart Wilcox
Introductory Horticulture. Delmar

XI. ADDITIONAL RESOURCES

Websites:

www.gaaged.org – Past written exams, practicum and interactive plant identification quiz available.

AG-GH-01.461 (General Horticulture & Plant Science Curriculum)

AG-FL 01.461 (General Floriculture Curriculum)

www.ffa.org – a sample of national written exam and links to additional study aids

includes resources on plant and disorder identification, landscape drawing practicum, and FFA Supply Service for ordering prior copies of National General Knowledge Test.

www.extension.uga.edu - cooperative extension service website with many horticulture links of information



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Plant Identification

201. African Violet / *Saintpaulia ionantha*
202. Ageratum / *Ageratum mexicanum*
203. Aglaonema / *Aglaonema* cv
204. Alstromeria / *Alstromeria aurantiaca*
205. Aluminum plant / *Pilea cadierei*
206. Alyssum / *Lobularia maritima*
207. Amaryllis / *Hippeastrum* hybrids
208. Anthurium / *Anthurium* cv.s
209. Asiatic (Garden) Lily / *Lilium* x hybridum cv.
210. Azalea / *Rhododendron*
211. Benjamin Fig / *Ficus benjamina* 'Exotica'
212. Boston Fern / *Nephrolepis exaltata*
213. Bromeliad, Silver Vase / *Aechmea fasciata* cv.
214. Cactus / *Opuntia* tribe cv.
215. Caladium / *Caladium* x hortulanum
216. Calla Lily / *Zantedeschia* hybrid cv.
217. Camellia / *Camellia japonica* cv.
218. Canna Lily / *Canna* x generalis
219. Cattleya Orchid / *Cattleya* hybrids
220. Celosia (Cockscomb) / *Celosia cristata*
221. Chrysanthemum / *Chrysanthemum* x morifolium
222. Clematis / *Clematis Jackmanii* Group cv.
223. Coleus / *Solenostemon scutellarioides*
224. Corn Plant *Dracaena* / *Dracaena fragrans* 'Massangeana'
225. Cutleaf Philodendron / *Monstera deliciosa*
226. Croton / *Codiaeum variegatum pictum* cv.
227. Crown of thorns / *Euphorbia milii splendens*
228. Cyclamen / *Cyclamen* x persicum
229. Cymbidium Orchid / *Cymbidium* cv.s
230. Daffodil / *Narcissus pseudo-narcissus*
231. Dendrobium Orchid / *Dendrobium* x hybrid cv.
232. Dumbcane / *Dieffenbachia* cv
233. Dusty Miller / *Senecio cineraria*
234. Dutch Iris / *Iris* x xiphium
235. Dwarf Schefflera / *Heptapleurum arboricola*
236. Emerald Ripple Peperomia / *Peperomia caperata*
237. English Ivy / *Hedera helix*
238. Eucalyptus / *Eucalyptus polyanthemos*
239. Flowering Stock / *Matthiola incana* cv.
240. Gardenia / *Gardenia jasminoides* 'Fortuniana'
241. Geranium / *Pelargonium* x hortorum
242. Gerbera Daisy / *Gerbera jamesonii*
243. Gloxinia / *Sinningia speciosa*
244. Grape Ivy / *Cissus rhombifolia*
245. Heartleaf Philodendron / *Philodendron oxycardium*
246. Hens and Chickens / *Echeveria* cv.
247. Hyacinth / *Hyacinthus orientalis*
248. Hybrid Tea Rose / *Rosa* hybrid, Class Hybrid Tea
249. Hydrangea / *Hydrangea macrophylla*
250. Impatiens / *Impatiens* hybrids
251. Ivy Leaf Geranium / *Pelargonium peltatum*
252. Jade Plant / *Crassula argentea*
253. Kalanchoe / *Kalanchoe* x blossfeldiana
254. Macho Fern / *Nephrolepis biserrata*
255. Marigold / *Tagetes* species
256. Million Bells / *Calibrachoa* hybrid cv.
257. Moth Orchid / *Phalaenopsis* cv.
258. Nephthytis / *Syngonium podophyllum*
259. Norfolk Island Pine / *Araucaria heterophylla*
260. Ornamental Pepper Plant / *Capsicum annuum*
261. Ornamental Sweet Potato / *Impomoea batatas* cv.
262. Pansy / *Viola* x wittrockiana
263. Parlor Palm / *Chamaedorea elegans*
264. Peace Lily / *Spathiphyllum* species
265. Pentas / *Pentas* hybrid cv.
266. Peperomia / *Peperomia obtusifolia*
267. Petunia / *Petunia* x hybrida
268. Plumosa Asparagus Fern / *Asparagus setaceus*
269. Poinsettia / *Euphorbia.pulcherrima* cv
270. Portulaca / *Portulaca orleracea* cv.
271. Pothos / *Epipremnum aurens*
272. Prayer Plant / *Maranta leuconeura kerchoviana*
273. Primrose / *Primula* x polyanthus cv.
274. Red Edge Dracaena / *Dracaena cincta*
275. Rubber Plant / *Ficus elastica*
276. Salvia / *Salvia splendens*
277. Shrimp Plant / *Justicia brandegeana*
278. Snake Plant / *Sansevieria trifasciata*
279. Snapdragon / *Antirrhinum majus*
280. Spider Plant / *Chlorophytum comosum*
281. Sprengeri Fern / *Asparagus spengeri*
282. Swedish Ivy/ *Plectranthus australis*
283. Thanksgiving Cactus / *Schlumbergia truncata*
284. Tulip / *Tulip* cv.s
285. Vinca (Periwinkle) / *Catharanthus roseus*
286. Verbena / *Verbena* x hybrida
287. Wandering Jew / *Zebrina pendula*
288. Wax Begonia / *Begonia* x semperflorens
289. Zebra Plant / *Aphelandra squarrosa*
290. Zinnia / *Zinnia elegans*



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Horticulture Tools and Materials Identification List

Revised June 2018

- 301. bypass pruner
- 302. bark medium
- 303. bulb planter
- 304. cell pack container
- 305. coconut coir/liner
- 306. compressed air sprayer
- 307. drip emitter, irrigation
- 308. dry foam
- 309. floral foam
- 310. ground limestone
- 311. hose-end repair fitting
- 312. hose-end sprayer
- 313. hose-end washer
- 314. hose repair coupling
- 315. irrigation timer
- 316. mist nozzle (mist bed)
- 317. peat moss
- 318. perlite
- 319. pest strips
- 320. pH testing meter
- 321. polyethylene film
- 322. polyethylene pipe
- 323. propagation mat
- 324. propagation tray
- 325. resin-coated fertilizer
- 326. respirator
- 327. safety goggles/glasses
- 328. sand
- 329. shade fabric
- 330. sheet moss
- 331. siphon proportioner
- 332. soil moisture meter
- 333. solenoid valve
- 334. spaghetti tubing (¼" diameter or less)
- 335. sphagnum moss
- 336. spray suit
- 337. styrofoam
- 338. tape measure
- 339. vermiculite
- 340. water breaker
- 341. water soluble fertilizer



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Floriculture Disorders Identification List

Revised June 2018

201. Aphid
202. Bermudagrass
203. Black Spot
204. Botrytis
205. Cold Temperature (Freeze)
206. Cold Water Damage
207. Crabgrass
208. Damping Off
209. Edema
210. Fungus Gnat
211. Insufficient water damage (Wilt)
212. Iron Deficiency
213. Leaf Miner
214. Mealy Bug
215. Nitrogen deficiency
216. Nutgrass
217. Oxalis
218. Phosphorus deficiency
219. Powdery Mildew
220. Rust
221. Scale
222. Slug
223. Spider Mite
224. Thrip
225. Whitefly
226. Apply complete fertilizer
227. Apply Fungicide
228. Apply Herbicide
229. Apply Insecticide
230. Apply Miticide/Acaricide
231. Apply Molluscicide Bait



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Asexual Plant Propagation Rubric

100 points

Student Name _____

Chapter Name _____

	Excellent	Good	Needs Improvement	Member Score
Proper sanitation and equipment use	4-5 points	2-3 points	0-1 points	
Selection of cuttings	4-5 points	2-3 points	0-1 points	
Making cuttings	5-6 points	3-4 points	0-2 points	
Preparation of cuttings for sticking in growing media	5-6 points	3-4 points	0-2 points	
Use of rooting hormone	4-5 points	2-3 points	0-1 points	
Selection of growing media	5-6 points	3-4 points	0-2 points	
Sticking of cuttings in growing media	5-6 points	3-4 points	0-2 points	
Cuttings labeled correctly	4-5 points	2-3 points	0-1 points	
Response to questions	5-6 points	3-4 points	0-2 points	
Total Score: 50x2				

Judge's Name _____

Judge's Signature _____

Date _____



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Pinching Plants Rubric

Student Name _____

Chapter Name _____

	Excellent	Good	Needs Improvement	Member Score
Selection of plant part to pinch	8-10	4-7	0-3	
Use of proper procedures in making pinches	8-10	4-7	0-3	
Made proper pinches	8-10	4-7	0-3	
Overall effect of making pinches	8-10	4-7	0-3	
Answered questions correctly	8-10	4-7	0-3	
Total Score: 50x2				

Judge's Name _____

Judge's Signature _____

Date _____



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Potting of Young Plants Practicum Rubric

100 points

Student Name _____

Chapter Name _____

	Excellent	Good	Needs Improvement	Member Score
Selection of plugs or liners	5-6 points	3-4 points	0-2 points	
Proper planting depth	6-8 points	3-6 points	0-2 points	
Labeling of plant/pot	5-6 points	3-4 points	0-2 points	
Correct growing medium level in pot	5-6 points	3-4 points	0-2 points	
Plug or liner arrangement and angle	5-6 points	3-4 points	0-2 points	
Firmness of growing medium	5-6 points	3-4 points	0-2 points	
General appearance (free from handling damage)	5-6 points	3-4 points	0-2 points	
Response to questions	5-6 points	3-4 points	0-2 points	
Total Possible:			50x2	

Judge's Name _____

Judge's Signature _____

Date _____



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Team Activity Rubric

Chapter Name _____

Indicator	Very strong evidence skill is present 5-4 points	Moderate evidence that skill is not present 3-2 points	Strong evidence skill is not present 1-0 points	Points Earned	Weight	Total Score
Established team leadership role	One member seemed to assume leadership and others cooperated.	One member seemed to assume leadership..	No leadership role(s) were established.		X 5	
Member participation in planning activity	All members participated in discussion before work began.	Limited member discussion occurred before work began.	No member discussion occurred before work began.		X 10	
Developed a work- able plan	Duties were assigned and all had equal parts.	Duties were assigned and all had near equal parts.	Duties were not assigned and participation varied.		X10	
Membership responsibilities were outlined and assigned	Responsibilities were assigned with interaction between members.	Responsibilities were assigned with little interaction.	Responsibilities were not verbally assigned.		X5	
Material was organized prior to commencing activity	Material was organized and distributed.	Most material was organized.	Material was left as presented until needed.		X 5	
Member participation in carrying out activity functions	All members participated with leadership pro- vided.	All members participated.	One or more members had almost no participation.		X 5	
Followed proper procedures in carrying out activity	All activities resulted in completed product.	Most activities resulted in completed product.	Some activities resulted in completed product.		X 10	
Quality of activity product	Products exceed minimum industry standard.	Products meet minimum industry standards.	Products below industry standard.		X 10	
300 Points Possible						

Judges Name Print _____ Judges Signature _____