

**West Tennessee FFA**

# Floriculture Handbook 2022

## Purpose

*The Tennessee FFA Floriculture Career Development Event is designed to create an interest in career preparation for all current and future aspects of the floriculture industry through leadership development and hands on technical skill development using industry standards which are delivered through the agriculture education curriculum.*

Floriculture is a discipline of horticulture concerned with the cultivation of flowering and ornamental plants for gardens and the floral industry.

The floriculture industry encompasses the following:

- Greenhouse and field production and management.
- Garden center and floral shop management.
- Floral design and management.

## Objectives

- Identify plant materials, supplies, and equipment utilized in the floriculture industry.
- Demonstrate an understanding of the biological and scientific principles and 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 principles of design and develop related skills.
- 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.
- Operate, manage and maintain 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.

## Event Rules

*Each team will be comprised of four members.*

- All four scores will be used to determine total team score.
- FFA Official Dress is NOT required for this event.
- Under no circumstances will any participant be allowed to touch or handle plant material during the event except when instructed by the event staff.
- 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.
- Any participant caught cheating during the event will be expelled from the event.
- All participants are expected to be prompt at their stations throughout the event. No provision will be made for tardiness, which will in most cases cause the late participant to lose event points.
- The event superintendent will assign the participants to group leaders who will escort them to various event staging sites. Participants must know their participant number and stay in their assigned group at all times or until told to change leaders by the event superintendent.
- 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.
- All participants will be given an identification number by which they will be designated throughout the event.
- Various computer applications may be utilized throughout the floriculture event.
- Any participant in possession of an electronic and/or communication device in the event area is subject to disqualification.

## Event Format

Materials students need to provide:

- Clear, transparent clipboard, free of notes
- Two sharpened No. 2 pencils
- Prepared résumé
- Floral cutters/clippers
- Ribbon shears
- Wire cutters
- Floral knife
- Calculator- Should be battery operated, non-programmable and non-scientific (basic five function only). No other calculators are allowed to be used during the event.
- Participants may also bring an apron, and/or a tool belt and towels.

### *TEAM ACTIVITY (800 POINTS)*

Each team will perform an assignment routinely performed in some phase of the floriculture industry that requires teamwork. Prior to the event, the Tennessee FFA 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.

## INDIVIDUAL ACTIVITIES

### *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.

### *GENERAL KNOWLEDGE EXAMINATION (200 POINTS)*

Participants will answer 50 multiple choice questions that cover all areas of the floriculture industry as reflected in the event objectives. The test will be made up of the previous five years National FFA Floriculture General Knowledge Exams located on [ffa.org](http://ffa.org). 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 participant will be allowed 50 minutes to complete the exam. Each answer has a value of four points.

#### Explanation of Floral Arrangement Terms

- **Design:** Category Interpretation: Design follows objective/ scenario given
- **Balance:** Physical and visual
- **Creativity:** Artistic inventiveness
- **Depth:** Placement of materials at different levels throughout the arrangement
- **Focal Emphasis:** Design has one area of design that attracts the eye to it
- **Line:** Movement
- **Mechanics:** Professional techniques and application
- **Scale:** Proportion
- **Unity:** Cohesiveness of design

### Nutritional and Environmental Disorders

- Cold temperature (freeze)
- Cold water damage
- Ethylene damage
- Insufficient water damage
- Iron deficiency
- Nitrogen deficiency
- Phosphorus deficiency

### Diseases

- Botrytis – Gray mold
- Damping-off
- Downy mildew
- Leaf spot (Black)
- Powdery mildew
- Root rot
- Rust
- Stem rot
- Tospovirus (INSV and TSWV)

### Insects and Pests

- Aphids
- Fungus gnats
- Leaf miner
- Leafhopper
- Mealybugs
- Scale
- Shore flies
- Snails/ Slugs
- Spider mites
- Thrips
- Whiteflies

## Scoring

PHASE	Individual Points	Team Points
Identification of Plant Material Equipment and Disorders.	200	800
General Knowledge Exam	200	800
Team Activity	0	800
Total	<b>400</b>	<b>2,400</b>

### TIEBREAKERS

#### INDIVIDUAL

If ties occur the following events will be used in order to determine award recipients:

1. Written Exam
2. Plant and Equipment Identification

#### TEAM

If ties occur the following events will be used in order to determine award recipients:

1. Team Activity

# References

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

- Old General Knowledge Exams located on [ffa.org](http://ffa.org)
- Other sources may be utilized, and teachers are encouraged to make use of the very best instructional materials available. The following list contains references that may prove helpful during event preparation.
- National FFA Core Catalog—Past CDE Q&A's (<http://shop.FFA.org/cde-qas-c1413.aspx>)
- Principal of Floral Design, Pat Diehl Scafe, James M. DelPrince – Goodheart Wilcox Publisher [www.g-w.com](http://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, Inter-state Publishers, Inc.
- Introductory Horticulture – Carroll Shry, Edward Reiley – Eight 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

## Floriculture Plant Identification List

101	Aechmea fasciata cv.	Silver Vase Bromeliad
102	Ageratum houstonianum	Ageratum
103	Alstroemeria hybrid cv.	Peruvian Lily
104	Anemone coronaria	Anemone
105	Anethum graveolens cv.	Dill
106	Angelonia hybrid cv.	Angelonia
107	Anthurium x andraeanum cv.	Flamingo Plant
108	Antirrhinum majus cv.	Snapdragon
109	Aphelandra squarrosa cv.	Zebra Plant
110	Araucaria heterophylla	Norfolk Island Pine
111	Asparagus densiflorus	Sprenger Fern
112	Aster pringlei	Monte Cassino Aster
113	Astilbe hybrid cv.	Astilbe
114	Begonia x semperflorens –cultorum	Wax Begonia
115	Begonia x tuberhybrida cv.	Tuberous Begonia
116	Caladium x hortulanum cv.	Caladium
117	Calibrachoa hybrid cv.	Million Bells
118	Callistephus chinensis cv.	China Aster
119	Campanula hybrid cv.	Campanula
120	Canna x generalis cv.	Garden Canna
121	Capsicum annum	Ornamental Pepper Plant
122	Catharanthus roseus	Periwinkle
123	Celosia argentea cv.	Cockscomb
124	Chamaedorea elegans	Parlor Palm
125	Chamelaucium uncinatum	Waxflower
126	Cholorophytum comosum cv.	Spider Plant
127	Chrysanthemum x morifolium	Florist's Chrysanthemum
128	Clematis hybrid cv.	Clematis
129	Codiaeum variegatum pictum	Croton
130	Crassula argentea	Jade Plant
131	Cycas revoluta cv.	Sago Palm
132	Cyclamen x persicum cv.	Florist's Cyclamen
133	Cymbidium cv.	Cymbidium Orchid
134	Cymbopogon cv.	Lemongrass (herb)
135	Dahlia hybrid cv.	Dahlia
136	Delphinium consolida cv.	Larkspur
137	Dendrobium cv.	Dendrobium Orchid
138	Dianthus caryophyllus cv.	Carnation
139	Dracaena cincta	Red Edge Dracaena

140	Echinocactus cv.	Barrel Cactus
141	Epipremnum aureum cv.	Golden Pothos
142	Erica carnea cv.	Spring Heather
143	Eucalyptus polyanthemos	Silver Dollar Eucalyptus
144	Euphorbia pulcherrima cv.	Poinsettia
145	Eustoma grandiflorum	Lisianthus
146	Exacum affine	Persian Violet
147	Ficus benjamina cv	Benjamin Fig
148	Ficus elastica cv	Rubber Plant
149	Fragaria x ananassa cv.	Strawberry Plant
150	Freesia x hybrida	Freesia
151	Gardenia jasminoides	Gardenia
152	Gerbera jamesonii	Gerbera Daisy
153	Gladiolus x hortulanus cv.	Garden Gladiolus
154	Gomphrena hybrid cv.	Globe Amaranths
155	Gypsophila elegans cv.	Baby's Breath
156	Hedera helix cv.	English Ivy
157	Helianthus annuus	Sunflower
158	Hemerocallis cv.	Daylily
159	Hippeastrum hybrid cv.	Amaryllis
160	Hosta cv.	Hosta
161	Hoya carnosa	Wax Plant
162	Hyacinthus orientalis cv.	Hyacinth
163	Hydrangea macrophylla	Big Leaf Hydrangea
164	Impatiens hybrid cv.	Impatiens
165	Impomoea batatas cv.	Ornamental Sweet Potato
166	Iris x xiphium cv.	Dutch Iris
167	Senecio cineraria	Dusty Miller
168	Justica brandegeana	Shrimp Plant
169	Kalanchoe x blossfeldiana cv.	Kalanchoe
170	Leucanthemum x superbum	Shasta Daisy
171	Leucospermum hybrid cv.	Pin Cushion Protea
172	Liatris spicata	Liatris
173	Lilium hybrid cv.	Asiatic or Oriental Lily
174	Limonium sinuatum	Statice
175	Lobularia maritima	Alyssum
176	Maranta leuconeura	Prayer Plant
177	Matthiola incana cv.	Stock
178	Monstera deliciosa	Split Leaf Philodendron

179	Narcissus hybrid cv.	<i>Daffodil or Narcissus</i>	200	Salvia splendens cv.	<i>Salvia</i>
180	Nephrolepis exaltata cv.	<i>Boston Fern</i>	201	Sansevieria trifasciata cv.	<i>Snake Plant</i>
181	Ocimum basilicum cv.	<i>Basil</i>	202	Schefflera arboricola	<i>Octopus Plant</i>
182	Opuntia cv.	<i>Cactus</i>	203	Schlumbergera bridgesii	<i>Christmas Cactus</i>
183	Paeonia cv.	<i>Peony</i>	204	Sempervivum hybrid cv.	<i>Hens and Chicks</i>
184	Paphiopedilum hybrid cv.	<i>Ladyslipper Orchid</i>	205	Senecio x hybridus cv.	<i>Cineraria</i>
185	Pelargonium x hortorum cv.	<i>Zonal Geranium</i>	206	Sinningia speciosa Fyiana Group cv.	<i>Florist Gloxinia</i>
186	Pelargonium peltatum cv.	<i>Ivy Geranium</i>	207	Solidago hybrid cv	<i>Solidago</i>
187	Pentas hybrid cv.	<i>Pentas</i>	208	Solenostemon scutellarioides	<i>Coleus</i>
188	Petroselinum crispum cv.	<i>Parsley</i>	209	Spathiphyllum	<i>Peace Lily</i>
189	Petunia x hybrida cv.	<i>Petunia</i>	210	Stephanotis floribunda	<i>Stephanotis</i>
190	Phalaenopsis cv.	<i>Moth Orchid</i>	211	Strelitzia reginae	<i>Bird of Paradise</i>
191	Philodendron scandens oxycardium	<i>Heartleaf Philodendron</i>	212	Syngonium podophyllum	<i>Nephtytis</i>
192	Pilea cadierei	<i>Aluminum Plant</i>	213	Tagetes species cv.	<i>Marigold</i>
193	Portulaca oleracea cv.	<i>Portulaca</i>	214	Tradescantia zebrine	<i>Wandering Jew</i>
194	Primula malacoides cv.	<i>Primrose</i>	215	Tulipa cv.	<i>Tulip</i>
195	Ranunculus hybrid cv.	<i>Ranunculus</i>	216	Verbena hybrid cv.	<i>Verbena</i>
196	Rhododendron simsii cv.	<i>Florist Azalea</i>	217	Vinca hybrid cv.	<i>Vinca</i>
197	Rosa hybrid cv	<i>Hybrid Tea Rose</i>	218	Viola x wittrockiana cv.	<i>Pansy</i>
198	Rumohra adiantiformis	<i>Leatherleaf Fern</i>	219	Zantedeschia hybrid cv.	<i>Calla Lily</i>
199	Saintpaulia ionantha cv.	<i>African Violet</i>	220	Zinnia cv.	<i>Zinnia</i>

## Floriculture equipment and supply identification list

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

335	Hearing protection
336	Glue pan
337	Glue sticks
338	Hook-and-blade pruners (bypass pruners)
339	Hose punch
340	Hose repair coupling
341	Hose-end repair fitting
342	Hose-end sprayer
343	Hose-end washer
344	Impulse sprinkler
345	Irrigation timer
346	Irrigation tape
347	Sphagetti tubing (1/4" diameter or less)
348	Nosegay holder
349	Ribbon shears
350	Sheet moss
351	Mist nozzle (mist bed)
352	Spanish moss
353	Nursery container
354	Oscillating sprinkler
355	Peat moss
356	Peat pots
357	pH testing meter
358	Fogger
359	Styrofoam
360	Surestik cling
361	Polyethylene film
362	Polyethylene pipe
363	Tulle
364	Water picks
365	Water tubes
366	Waterproof container tape
367	Propagation mat

368	Wire cutter
369	PVC (polyvinylchloride) pipe
370	Wooden pick
371	Resin-coated fertilizer
372	Respirator
373	Wrist corsage holder
374	PVC pipe cutter
375	Greenhouse thermostat
376	Safety goggles
377	Sand
378	Scoop shovel
379	Shade fabric
380	Sharpening stone
381	Siphon injector
382	Chemical resistant gloves
383	Soil moisture meter
384	Goggles
385	Solenoid valve
386	Pest strips
387	Propagation trays
388	Sphagnum moss
389	Spray suit
390	Square point (flat) shovel
391	Rockwool propagation cubes
392	Fertilizer injectors
393	Ellepot propagation cubes
394	Rice hulls
395	Pot covers
396	Rose and stem flower stripper
397	Backflow preventer
398	Vermiculite
399	Water breaker
400	Water soluble fertilizer

# Team Activity Rubric

NAME		MEMBER NUMBER	
CHAPTER	STATE	TEAM NUMBER	

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 10	
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 25	
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.		X 25	
Membership responsibilities were outlined and assigned	Responsibilities were assigned with interaction between members.	Responsibilities were assigned with little interaction.	Responsibilities were not verbally assigned.		X 10	
Material was organized prior to commencing activity	Material was organized and distributed.	Most material was organized.	Material was left as presented until needed.		X 10	
Member participation in carrying out activity functions	All members participated with leadership provided.	All members participated.	One or more members had almost no participation.		X 20	
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 25	
Quality of activity product	Products exceed minimum industry standard.	Products meet minimum industry standards.	Products below industry standard.		X 35	
TOTAL POINTS: 800						

JUDGE'S NAME	JUDGE'S SIGNATURE	DATE
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