

## Purpose

*The National 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 that are delivered through the agricultural 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 areas:

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

## 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 for use in the retail floral 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.

# Event Rules

Each team will be comprised of four members.

- All four scores will be used to determine the total team score.
- It is highly recommended that participants wear FFA Official Dress for this event. Participants may also bring an apron and/or a tool belt and towels.
- 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.
- 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:

- Clean clipboard, free of notes.
- Two sharpened No. 2 pencils.
- Floral cutters/clippers.
- Ribbon shears.
- Wire cutters.
- Calculator — Should be battery operated, non-programmable and non-scientific (basic five function only). No other calculators can be used during the event.
- All references to time limits are approximate. The committee reserves the right to adjust to the practicum and anticipated skill of the students

## 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 to test all areas of the floriculture industry as reflected in the event objectives including flowers and material from the wholesaler and how they are handled, stored, and used in the flower shop; knowledge of floral design (arrangement) and marketing of floral products from the floral shop as well as 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.

Test questions will come from the last five years of available National Floriculture CDE Tests. Each year the latest test will be added and the oldest test removed from the pool of questions to be used. National exams can be accessed at [FFA.org](http://FFA.org)

### *Problem-Solving/Decision-Making (200 points)*

Each participant will solve 10 problems related to the various aspects of the floriculture industry identified in the event objectives. Each problem will describe the situation or create the problem and list four possible solutions to the problem. The participant must decide on the best possible solution to the problem. All materials and information necessary to solve the problem will be available to the participant as he or she solves the problem. Each participant will be allowed 50 minutes to complete this phase of the event. Each correct solution has a value of 20 points.

*Annual Practicums (200 points)*-Each participant will complete **two** annual practicums:Floral arrangement & Growing procedures

### *Floral Arrangement (100 points)*

Make a \$55 retail priced floral arrangement in compliance with the scenario provided. (The \$55 cost will include tax as well as retail markup for fresh and hard goods and be within fifty cents either way of the \$55.) The event superintendent will announce the type of arrangement during the team orientation meeting. Using the materials provided, participants will be allowed 20 minutes to complete their arrangements and itemized bills. The event assistant at the beginning of the practicum will provide participants with the retail price of the flowers and foliage that they will use in their arrangements. The participant will determine the total arrangement cost using the pricing form provided plus 20% labor on their design. Retail cost of flowers and foliage given to the participant will be determined after polling florists to determine their current retail prices on the flowers and foliage used in the event. Scoring criteria are presented on the Floral Arrangement Practicum scorecard, which will be recorded by a judge.

#### **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

**Color:** harmonious use of color

### *Growing Procedures (100 points)*

One of the three activities listed below will be demonstrated on an annual basis. Ten minutes will be allowed for this section including questions from the judges. Seven (7) minutes to complete the assigned task, 1 minute for judges' questions, and 2 minutes for judges scoring.

**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; and ID stake and a marking pencil. Scoring criteria are presented on the Potting of Young Plants Practicum Rubric, which will 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 the correct media, best for rooting. Participants should sanitize all equipment and use it appropriately in a safe manner. Scoring criteria are presented on the Asexual Plant Propagation Rubric, which will be recorded by a judge.

**PINCHING PLANTS -** A plant will be placed before each participant. Participants will be judged on the procedures they follow in pinching the plant in compliance with the scenario provided. Scoring criteria are presented on the Pinching Plants Rubric, which will be recorded by a judge.

## Rotational Practicums (75 Points)

In addition to the **two** annual practicums, **ONE** practicum will be selected from the list below for each noted year.

### **MAKE AND PACKAGE A CORSAGE (75 POINTS)**

Each participant will make and package a \$25 retail priced corsage including 20% labor. The type of corsage and information about the corsage will be provided to the participants through a given scenario at the beginning of the practicum by the event assistant in charge. All plant and non-plant materials needed to construct and package the corsage will be provided. The selection of materials should be combined to create a floral display according to the acceptable retail purposes, using appropriate elements and principles of design. Each participant will be allowed 20 minutes to complete the construction of the corsage and complete an itemized listing of costs for the corsage constructed. Scoring criteria are presented on the Making and Packing a Corsage Rubric, which will be recorded by a judge.

### **❖ IDENTIFYING AND CONTROLLING PLANT DISORDERS (75 POINTS)**

Pest and disorder items may be presented as an intact specimen, photograph or preserved specimen (herbarium sheet, insect mount, etc.). Each specimen will be designated by a station number. The participant must identify the item and its classification (nutritional/environmental, insect/pest or disease). The participant must then determine the damage location as well as chemical and culture controls for the disorder. Each participant will identify 15 specimens total for this event.

No specimens or items may be touched or handled in any way. Fifteen (15) minutes will be allowed for this event. Refer to the Disorder Practicum Scorecard for additional details.

The plant disorders will come from the following list of disorders.

#### **Nutritional and environmental Disorder**

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

#### **Diseases**

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

#### **Insects and Pests**

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

- ❖ **HANDLING A HAZARDOUS SITUATION (75 POINTS)** Each participant will be presented with a hazardous situation that could develop in a floriculture business. The participant will be asked to explain how to resolve the problem. The participant will be evaluated on their understanding of the problem and procedures and practices followed in resolving the problem. Ten minutes will be allowed for this practicum. Scoring criteria are presented on the Hazardous Situation Rubric, which will be recorded by a judge.

## Scoring

Phase	Individual Points	Team Points
Plant and Equipment Identification	200	800
General knowledge	200	800
Problem solving	200	800
Annual practicums - 100 points each * Floral arrangement * Growing procedures	200	800
Rotational practicums – 1 selected * Make and Package a Corsage * Identifying/Controlling Plant Disorders * Handling a Hazardous Situation	75	300
<b>TOTAL</b>	<b>875</b>	<b>3,500</b>

### TIEBREAKERS

#### Individual

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

1. Written exam
2. Floral arrangement practicum

#### Team

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

1. Plant and equipment identification
2. Total score for Floral Arrangement Practicum

## Awards

Awards will be presented at an awards ceremony to individuals and/or teams based upon their rankings.

# Floriculture Plant Identification List

No.	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</i> hybrid cv.	Peruvian Lily
106	<i>Anemone coronaria</i>	Wind Flower
107	<i>Anethum graveolens</i> cv.	Dill
108	<i>Angelonia</i> hybrid 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</i> hybrid cv.	Astilbe
116	<i>Begonia x semperflorens</i> – cultorum	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</i> hybrid cv.	Million Bells
121	<i>Callistephus chinensis</i> cv.	China Aster
122	<i>Campanula</i> hybrid 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</i> hybrid 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
165	<i>Hemerocallis</i> cv.	Daylily
166	<i>Hibiscus</i> spp.	Hibiscus
167	<i>Hippeastrum</i> hybrid 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</i> hybrid 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</i> hybrid 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</i> hybrid cv.	Ladyslipper Orchid
193	<i>Pelargonium peltatum</i> cv.	Ivy Geranium
194	<i>Pelargonium x hortorum</i> cv.	Zonal Geranium
195	<i>Pentas</i> hybrid cv.	Pentas star flower
196	<i>Peperomia</i> sp.	Peperomia
197	<i>Petroselinum crispum</i> cv.	Parsley
198	<i>Petunia x hybrida</i> cv.	Petunia
199	<i>Phalaenopsis</i> cv. <i>Philodendron scandens</i>	Moth Orchid
200	<i>oxycardium</i>	Heartleaf Philodendron

136	<i>Cycas revoluta</i> cv.	Sago Palm	201	<i>Pilea cadierei</i>	Aluminum Plant
137	<i>Cyclamen x persicum</i> cv.	Cyclamen	202	<i>Portulaca oleracea</i> cv.	Portulaca/ Moss rose
138	<i>Cymbidium</i> cv.	Cymbidium Orchid	203	<i>Primula malacoides</i> cv.	Primrose
139	<i>Cymbopogon</i> cv.	Lemongrass (herb)	204	<i>Protea</i> sp.	Protea
					Ranunculus/
140	<i>Dahlia</i> hybrid cv.	Dahlia	205	<i>Ranunculus</i> hybrid cv.	Buttercups
141	<i>Delosperma</i>	Ice Plant	206	<i>Rhododendron simsii</i> cv.	Azalea
142	<i>Delphinium consolida</i> cv.	Larkspur	207	<i>Rumohra adiantiformis</i>	Leatherleaf Fern
143	<i>Dendrobium</i> cv.	Dendrobium Orchid	208	<i>Saintpaulia ionantha</i> cv.	African Violet
144	<i>Dianthus caryophyllus</i> cv.	Carnation	209	<i>Salvia splendens</i> cv.	Salvia
145	<i>Dracaena Marginata</i>	Red Edge Dracaena	210	<i>Sansevieria trifasciata</i> cv.	Snake Plant
146	<i>Echinocactus</i> cv.	Barrel Cactus	211	<i>Schefflera arboricola</i>	Dwarf Schefflera
147	<i>Epipremnum aureum</i> cv.	Golden Pothos	212	<i>Schlumbergera bridgesii</i>	Christmas Cactus
148	<i>Erica carnea</i> cv.	Winter Heath	213	<i>Sempervivum</i> hybrid cv.	Hens and Chicks
		Silver Dollar			
149	<i>Eucalyptus polyanthemos</i>	Eucalyptus	214	<i>Senecio cineraria</i>	Dusty Miller
150	<i>Euphorbia pulcherrima</i> cv.	Poinsettia	215	<i>Senecio rowleyanus</i>	String of Pearls
		Lisianthus Prairie		<i>Solenostemon</i>	
151	<i>Eustoma grandiflorum</i>	gentian	216	<i>scutellarioides</i>	Coleus
152	<i>Exacum affine</i>	Persian Violet	217	<i>Solidago</i> hybrid cv	Solidago
153	<i>Ficus benjamina</i> cv	Benjamin Fig	218	<i>Spathiphyllum</i>	Peace Lily
154	<i>Ficus elastica</i> cv	Rubber Plant	219	<i>Stephanotis floribunda</i>	Stephanotis
155	<i>Ficus lyrata</i>	Fiddle Leaf Fig	220	<i>Strelitzia reginae</i>	Bird of Paradise
156	<i>Fragaria x ananassa</i> cv.	Strawberry Plant	221	<i>Syngonium podophyllum</i>	Arrowhead plant
157	<i>Freesia x hybrida</i>	Freesia	222	<i>Tagetes species</i> cv.	Marigold
158	<i>Gardenia jasminoides</i>	Gardenia	223	<i>Tillandsia</i> spp.	Air Plant
159	<i>Gerbera jamesonii</i>	Gerbera Daisy	224	<i>Tradescantia zebrine</i>	Inch Plant
160	<i>Gladiolus x hortulanus</i> cv.	Gladiolus	225	<i>Tulipa</i> cv.	Tulip
161	<i>Gomphrena</i> hybrid cv.	Globe Amaranths	226	<i>Verbena</i> hybrid cv.	Verbena
162	<i>Gypsophila elegans</i> cv.	Baby's Breath	227	<i>Viola x wittrockiana</i> cv.	Pansy
163	<i>Hedera helix</i> cv.	English Ivy	228	<i>Zantedeschia</i> hybrid cv.	Calla Lily
164	<i>Helianthus annuus</i>	Sunflower	229	<i>Zinnia</i> cv.	Zinnia

# Floriculture Tool Identification List

No.	Item	No.	Item
301	#100 Ribbon (satin, sheer, wired)	350	Impulse sprinkler
302	#3 Ribbon (satin, sheer, wired)	351	Drip Irrigation tape
303	#40 Ribbon (satin, sheer, wired)	352	Irrigation timer
304	#9 Ribbon (satin, sheer, wired)	353	Mist nozzle (mist bed)
305	18-Gauge floral wire	354	Nosegay holder
306	28-Gauge floral wire	355	Nursery container
307	Anvil-and-blade pruner	356	Oscillating sprinkler
308	Backflow preventer	357	Peat moss
309	Bouquet sleeve	358	Peat pots
310	Bulb planter	359	Pest strips
311	Cardette	360	pH testing meter
312	Cell pack containers	361	Polyethylene film
313	Ceramic container	362	Polyethylene pipe
314	Chemical resistant gloves	363	Pot covers
315	Chenille stem	364	Propagation mat
316	Coconut coir	365	Propagation trays
317	Compressed air sprayer	366	PVC (polyvinyl chloride) pipe
318	Corsage box	367	PVC pipe cutter
319	Corsage pin	368	Resin-coated fertilizer
320	Corsage snips	369	Respirator
321	Drip emitter, irrigation	370	Ribbon shears
322	Dry foam	371	Rice hulls
323	Dust mask	372	Rockwool propagation cubes
324	Duster	373	Rose and stem flower stripper
325	Ellepot propagation cubes	374	Safety goggles
326	Enclosure card	375	Sand
327	Fern greening pins	376	Scoop shovel
328	Fertilizer injectors	377	Shade fabric
329	Floral adhesive	378	Sharpening stone
330	Floral foam	379	Sheet moss
331	Floral knife	380	Siphon injector
332	Floral preservative	381	Soil moisture meter
333	Floral stem tape	382	Solenoid valve
334	Fogger	383	Spaghetti tubing (1/4" diameter or less)
335	Gas mask	384	Spanish moss
336	Glass vase	385	Sphagnum moss
337	Glue gun	386	Spray suit
338	Glue pan	387	Square point (flat) shovel
339	Glue sticks	388	Styrofoam
340	Granular fertilizer	389	Surestik cling
341	Greenhouse thermostat	390	Tulle
342	Hanging basket	391	Vermiculite
343	Hearing protection	392	Water breaker
344	Hook-and-blade pruners (bypass pruners)	393	Water picks
345	Hose punch	394	Water soluble fertilizer
346	Hose repair coupling	395	Water tubes
		396	Waterproof container tape

- 347 Hose-end repair fitting
- 348 Hose-end sprayer
- 349 Hose-end washer

- 397 Wire cutter
- 398 Wooden pick
- 399 Wrist corsage holder

# Floral Arrangement Practicum Rubric (100 POINTS)

<b>Name</b>	<b>Member Number</b>	<b>Chapter/State</b>	<b>Team Number</b>
<b>Evaluator Name</b>	<b>Evaluator's Signature</b>	<b>Date</b>	

	Excellent	Good	Needs Improvement	Member Score
<b>Category interpretation</b>	<b>4-5 points</b> Design follows given scenario within provided parameters and correlates to the appropriate style, shape and design	<b>2-3 points</b> Design slightly followed given scenario but is somewhat lacking in appropriate style, shape, or design	<b>0-1 points</b> Design does not follow given scenario and/or lacks in following the given style, shape, or design	
<b>Balance</b>	<b>7-10 points</b> Design is both visually and physically balanced	<b>4-6 points</b> Design is slightly off balanced	<b>0-3 points</b> Design is not balanced visually or physically	
<b>Creativity</b>	<b>7-10 points</b> Design expresses advanced creative ability and advanced design techniques	<b>4-6 points</b> Design expresses some creative ability and minimal advanced design techniques	<b>0-3 points</b> Design lacks creative ability and Demonstrates limited design techniques	
<b>Depth</b>	<b>7-10 points</b> Placement of materials at different levels is evenly distributed throughout	<b>4-6 points</b> Placement of materials are somewhat distributed evenly	<b>0-3 points</b> Placement of items are not distributed evenly	
<b>Color</b>	<b>7-10 points</b> Color is used evenly/harmoniously throughout	<b>4-6 points</b> Color is used somewhat correctly	<b>0-3 points</b> Color is not used correctly	
<b>Focal emphasis</b>	<b>7-10 points</b> Design has one area of design that attracts the eye	<b>4-6 points</b> Design somewhat has a clear focal point	<b>0-3 points</b> Design does not have a clear focal point	
<b>Line/Rhythm</b>	<b>7-10 points</b> Design has a clear sense of movement created visually by the placement of floral materials	<b>4-6 points</b> Design has a somewhat clear sense of movement created visually by the placement of floral materials	<b>0-3 points</b> Design has no clear sense of movement created visually by the placement of floral materials	
<b>Mechanics</b>	<b>7-10 points</b> Techniques used to keep floral material secure and stable are hidden or done neatly	<b>4-6 points</b> Techniques used to keep floral material secure and stable are somewhat hidden or done neatly	<b>0-3 points</b> Techniques used to keep floral material secure and stable are not hidden or done neatly	
<b>Scale / Proportion</b>	<b>4-5 points</b> Design is, the correct size based on container given	<b>2-3 points</b> Design is slightly out of proportion	<b>0-3 points</b> Design is not in proportion with container given	
<b>Unity</b>	<b>4-5 points</b> All principles of designs are present and executed well	<b>2-3 points</b> Some principles of design are executed well	<b>0-1 points</b> None or few principles of design are executed well	
<b>Itemized list of costs (15 pts)</b>				
<b>Bill of Sale Completion</b>	<b>4-5 point</b> Bill of Sale is completed entirely a complete list of all items used	<b>2-3 points</b> Bill of Sale is not entirely complete or missing some items used in the design	<b>0-1 points</b> Bill of Sale is missing a lot of detail and/or missing several items used in the design	
<b>Individual Pricing and Quantity Used</b>	<b>4-5 points</b> All items used in the design are individual price and quantity totally accurate	<b>2-3 points</b> Some items added incorrectly, or quantity used listed incorrectly.	<b>0-1 points</b> Significant number of items added or listed incorrectly	

<b>Total Bill of Sale Pricing Accuracy</b>	<b>4-5 points</b> Overall bill is legible with labor calculated correctly, and total price is listed accurately within +/- \$0.50 of \$55.00	<b>2-3 points</b> Overall bill includes minor errors, includes parts that are difficult to read or final price slightly off target goal of \$55.00	<b>0-1 points</b> Overall bill includes major errors, difficult to read, or well off target goal of \$55.00.	
	<b>Total Score (100 possible points)</b>			

**Floral Arrangement Itemized List of Costs**

Evaluator Name: \_\_\_\_\_ Date: \_\_\_\_\_

Quantity	Flower/Foliage	Unit Cost	Total
TOTAL FLOWER/FOLIAGE MATERIAL COST			

Quantity	Material Used	Unit Cost	Total
TOTAL HARD GOODS COST			

Total Plant Material Cost	<input type="text"/>
Total Hardgood Cost	<input type="text"/>
Sub Total	<input type="text"/>
Labor 20%	<input type="text"/>
Total Arrangement Cost	<input type="text"/>

# Asexual Plant Propagation Rubric (100 POINTS)

Name	Member Number	Chapter/State	Team Number		
Evaluator Name	Evaluator's Signature	Date			
	Excellent	Good	Needs Improvement	Weight	Member Score
<b>Proper sanitation and equipment use</b>	<b>4-5 points</b> Thoroughly covering cutting instrument with a sterile solution	<b>2-3 points</b> Cleaning cutting instrument with solution	<b>0-1 point</b> No sanitation procedures followed or not followed properly	<b>(X2)</b>	
<b>Selection of cuttings</b>	<b>4-5 points</b> Small uniform terminal shoot cuttings	<b>2-3 points</b> Used some cuttings of the same size and type	<b>0-1 point</b> Too large nonterminal shoots, or not uniform in size	<b>(X2)</b>	
<b>Making cuttings</b>	<b>5-6 points</b> Straight, flush even cut of the basal end	<b>3-4 points</b> Some cuttings cut properly and some incorrectly cut	<b>0-2 points basal end</b> cut at angle or damaged	<b>(X2)</b>	
<b>Preparation of cuttings for sticking in growing media</b>	<b>5-6 points</b> Selected/ prepared cuttings that did not require further preparation	<b>3-4 points</b> Selected cuttings that required removal of damaged and/or unneeded foliage	<b>0-2 points</b> left damaged and/or unnecessary foliage on plant	<b>(X2)</b>	
<b>Use of rooting hormone</b>	<b>4-5 points</b> Poured correct amount of rooting hormone into separate container, applied Hormone & tapped off excess amount	<b>2-3 points</b> Too much or too little put in separate container, applied correctly but did not tap off extra hormone	<b>0-1 point</b> applied directly from source container and/or did not use rooting hormone	<b>(X2)</b>	
<b>Selection of growing media</b>	<b>5-6 points</b> Select best rooting medium for optimum rooting	<b>3-4 points</b> Select moderate but not best choice for optimum rooting	<b>0-2 points</b> selected incorrect rooting medium	<b>(X2)</b>	
<b>Sticking of cuttings in growing media</b>	<b>5-6 points</b> Creating a dibble in media prior to placing cutting, placing at proper depth, firming media correctly	<b>3-4 points</b> Correctly demonstrated at least 1 or 2 of the correct principles	<b>0-2 points</b> no prior hole made, planted too deep, or left unstable	<b>(X2)</b>	
<b>Cuttings labeled correctly</b>	<b>4-5 points</b> Labeled with date propagated, plant name, and cultivar	<b>2-3 points</b> Labeled with some but not all information required	<b>0-1 point</b> no label present or labeled with incorrect information	<b>(X2)</b>	

<b>Response to questions</b>	<b>5-6 points</b> Answered judges questions correctly	<b>3-4 points</b> Answered some questions correctly	<b>0-2 points</b> Did not or incorrectly answered questions	<b>(X2)</b>
<b>TOTAL SCORE (100 POINTS POSSIBLE)</b>				

## Pinching Plant Rubric (100 POINTS)

<b>Name</b>	<b>Member Number</b>	<b>Chapter/State</b>	<b>Team Number</b>
<b>Evaluator Name</b>	<b>Evaluator's Signature</b>	<b>Date</b>	

	<b>Excellent 8-10 points</b>	<b>Good 4-7 points</b>	<b>Needs Improvement 0-3 points</b>	<b>Weight</b>	<b>Member Score</b>
<b>Selection of plant part to pinch</b>	Followed given scenario to determine correct pinch	Some pinches were made in incorrect places on plant	Most all pinches were made on incorrect places	<b>(X2)</b>	
<b>Use of proper procedures in making pinches</b>	Used proper tools and/or techniques in making pinches	Used some but not all proper tools and/or techniques in making pinches	Used few or not any of proper tools and/or techniques in making pinches	<b>(X2)</b>	
<b>Made proper pinches</b>	Plant pinched correctly to get desired effect per instructions	Some pinches were too little or too much to get desired effect per instructions	Most or all of plant pinches would not allow the plant to reach desired effect per instructions	<b>(X2)</b>	
<b>Overall effect of making pinches</b>	The plant will reach desired outcome after pinching, no damage to plant parts left after pinch, and pinches correctly done	The plant will have some difficulty achieving desired outcome, some plant parts left have damage, and some pinches not done correctly	The plant will not be able to achieve desired outcome, much damage to plant part left, and most pinches not done correctly	<b>(X2)</b>	
<b>Answered questions correctly</b>	Answered questions correctly	Answered some questions correctly	Did not or incorrectly answered questions	<b>(X2)</b>	

**TOTAL SCORE (100 POINTS POSSIBLE)**

## Potting of Young Plants Practicum Rubric (100 POINTS)

<b>Name</b>	<b>Member Number</b>	<b>Chapter/State</b>	<b>Team Number</b>
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<b>Evaluator Name</b>	<b>Evaluator's Signature</b>	<b>Date</b>
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	Excellent	Good	Needs Improvement	Weight	Member Score
<b>Selection of plugs or liners</b>	<b>5-6 points</b> Plugs/liners are uniform in size and shape, correct number selected based on pot size provided	<b>3-4 points</b> Plugs/liners are somewhat uniform in size and shape, just slightly off in selecting the correct number	<b>0-2 points</b> Plugs/liners are not uniform in size and shape, correct number not selected based on pot size provided	<b>(x2)</b>	
<b>Proper planting depth</b>	<b>5-6 points</b> Hole is made prior to placing plant in soil, the entire root system is covered, leaving proper stem length visible	<b>3-6 points</b> minor amount of roots are showing, planted slightly too deep	<b>0-2 points</b> A large amount of roots are showing or plant stem is covered with soil	<b>(x2)</b>	
<b>Labeling of plant/pot</b>	<b>5-6 points</b> Labeled with date planted, plant name, and cultivar	<b>3-4 points</b> Labeled with some but not all information required	<b>0-2 points</b> no label present or labeled with incorrect information	<b>(x2)</b>	
<b>Correct growing medium level in pot</b>	<b>5-6 points</b> Growing media is filled to the inner lip of the pot, leaving enough room to water the plant	<b>3-4 points</b> Growing media is filled slightly too high or too low	<b>0-2 points</b> Growing media is left very low or completely fills up the pot	<b>(x2)</b>	
<b>Plug or liner arrangement and angle</b>	<b>5-6 points</b> Plugs/Liners evenly spaced for pot size given and plugs/liners planted in upright position	<b>3-4 points</b> plugs/liners planted slightly too close or too far apart, planting slightly tilting	<b>0-2 points</b> Plugs/liners not spaced correctly and not planted upright	<b>(x2)</b>	
<b>Firmness of growing medium</b>	<b>5-6 points</b> After planting, growing media is tapped/pressed firmly around each plant leaving the plant upright	<b>3-4 points</b> Growing media is left slightly loose or left slightly too firm restricting plant growth	<b>0-2 points</b> Growing media is not firmed after planting or left entirely too firm restricting plant growth	<b>(x2)</b>	
<b>General appearance (free from handling damage)</b>	<b>5-6 points</b> Final product presented to the judge with plants upright, pot clean, and in sellable condition	<b>3-4 points</b> Final product presented to the judge in slightly sellable condition	<b>0-2 points</b> Final product presented to judge in non-sellable condition	<b>(x2)</b>	

<b>Response to questions</b>	<b>5-6 points</b> Answered questions correctly	<b>3-4 points</b> Answered some questions correctly	<b>0-2 points</b> Did not or incorrectly answered questions	<b>(x2)</b>	
<b>TOTAL SCORE (100 POINTS POSSIBLE)</b>					

## Making and Packaging a Corsage Rubric (75 POINTS)

<b>Name</b>	<b>Member Number</b>	<b>Chapter/State</b>	<b>Team Number</b>
<b>Evaluator Name</b>	<b>Evaluator's Signature</b>	<b>Date</b>	

	Excellent	Good	Needs Improvement	Weight	Member Score
<b>Mechanical Application</b>	<b>11-15 points</b> Techniques used to keep floral material secure and stable are hidden or done neatly	<b>6-10 points</b> Techniques used to keep floral material secure and stable are somewhat hidden or done neatly	<b>0-5 points</b> Techniques used to keep floral material secure and stable are not hidden or done neatly	<b>(x2)</b>	
<b>Color</b>	<b>7-10 points</b> Color is used evenly/harmoniously throughout	<b>4-6 points</b> Color is used somewhat correctly	<b>0-3 points</b> Color is not used correctly	<b>(x2)</b>	
<b>Creativity</b>	<b>11-15 points</b> Design expresses a high level of creative ability and advanced design techniques.	<b>6-10 points</b> Design expresses some creative ability and minimal advanced design techniques	<b>0-3 points</b> Design lacks creative ability and demonstrated limited design techniques	<b>(x2)</b>	
<b>Balance</b>	<b>7-10 points</b> Design is physically and visually balanced	<b>4-6 points</b> Design is slightly off balance	<b>0-3 points</b> Design does not follow the principles of design regarding balance	<b>(x2)</b>	
<b>Design &amp; Category Interpretation</b>	<b>4-5 points</b> Design follows scenario given for an overall cohesive design	<b>2-3 points</b> Design somewhat follows scenario given and overall design is somewhat cohesive	<b>0-1 points</b> Design does not follow given scenario	<b>(x2)</b>	
<b>Bill of Sale Completion</b>	<b>7-10 points</b> Bill of Sale is completed entirely with a complete list of all items used	<b>5-8 points</b> Bill of Sale is not entirely complete or missing some items used in the design	<b>0-4 points</b> Bill of Sale is missing a lot of detail and/or missing several items used in the design	<b>(x2)</b>	

<b>Pricing Accuracy (accuracy of pricing identification)</b>	<b>7-10 points</b> All items used in the design are listed with correct price, totally accurately, labor calculated corrected, within	<b>4-6 points</b> Some items added incorrectly and/or final price slightly off target goal of \$25.00	<b>0-3 points</b> Significant number of items added incorrectly or way off target goal of \$25.00.	<b>(x2)</b>
<u>Quantity</u>	<u>Flower/Foliage</u>		<u>Unit Cost</u>	<u>Total</u>
TOTAL FLOWER/FOLIAGE MATERIAL COST				
<u>Quantity</u>	<u>Material Used</u>		<u>Unit Cost</u>	<u>Total</u>
TOTAL HARD GOODS COST				
	50 cents up or down of \$25.00			
<b>TOTAL SCORE (75 POINTS POSSIBLE)</b>				

## Corsage Itemized List of Costs

Name	Member Number	Chapter/State	Team Number
Evaluator Name	Evaluator's Signature	Date	

# Hazardous Situation Rubric (75 POINTS)

<b>Name</b>	<b>Member Number</b>	<b>Chapter/State</b>	<b>Team Number</b>
<b>Evaluator Name</b>	<b>Evaluator's Signature</b>	<b>Date</b>	

	Excellent 4-5 points	Good 2-3 points	Needs Improvement 0-1 points	Weight	Member Score
<b>Utilize proper personal safety precautions</b>	Was able to identify /demonstrate all proper PPE.	Missed only 1 piece of PPE	Did not know or excluded much of the PPE	X 4	
<b>Utilize proper safety procedures in clearing up the situation</b>	All necessary safety hazards including appropriate handling of materials and equipment discussed	Most necessary safety hazards including appropriate handling of materials and equipment discussed	Safety hazards and handling considerations not addressed	X 5	
<b>Proper disposal of problem materials</b>	Understood and demonstrated the procedures for disposal of the contaminant.	Understood and demonstrated most of the necessary procedures for disposal	Disposal procedures lacked completeness	X 4	
<b>Utilize proper follow-up procedures</b>	Provided follow-up procedures for contaminant and to address prevention.	Provided some follow-up procedures for contaminant and some to address prevention.	Follow up procedures and prevention were missing	X 20%	
				<b>Total Plant Material Cost</b>	
				<b>Total Hardgood Cost</b>	
				<b>Sub Total</b>	
				<b>Labor 20%</b>	
				<b>Total Arrangement Cost</b>	

<b>Total score (75 points possible)</b>	
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## **Disorder Practicum Scorecard** (75 points)

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**Name**

**Member Number**

**Chapter/State**

**Team Number**

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**Evaluator Name**

**Evaluator's Signature**

**Date**

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		Member Answer	Possible Points	Member Score
1.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
2.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
3.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
4.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
5.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
6.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
7.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
8.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	

		Member Answer	Possible Points	Member Score
9.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
10.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
11.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
12.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
13.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
14.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
15.	Classification #:		1	
	Identification #:		2	
	Chemical Control #:		1	
	Cultural/Biological Control #:		1	
<b>TOTAL POINTS</b>			<b>75</b>	

### CLASSIFICATION

- 1 Diseases
- 2 Insects/Pests /Mites
- 3 Nutritional/Environmental

### IDENTIFICATION

- 01 Aphids
- 02 Black Leaf Spot
- 03 Botrytis – Grey Mold
- 04 Cold Temperature (freeze)
- 05 Cold Water Damage
- 06 Damping-off
- 07 Downy Mildew
- 08 Ethylene Damage
- 09 Fungus Gnats
- 10 Insufficient Watering
- 11 Iron Deficiency
- 12 Leaf Miner
- 13 Leafhopper
- 14 Mealybugs
- 15 Nitrogen Deficiency
- 16 Phosphorus Deficiency
- 17 Powdery Mildew
- 18 Root Rot
- 19 Rust
- 20 Scale
- 21 Shore Flies
- 22 Snails/ Slugs
- 23 Spider Mites
- 24 Stem Rot
- 25 Thrips
- 26 Tospovirus (INSV and TSWV)
- 27 Whiteflies

### CHEMICAL CONTROL

- 1 Fungicide
- 2 Insecticide
- 3 Miticide
- 4 Molluscicide
- 5 No Treatment Listed

### CULTURAL CONTROL

- 1 Apply Complete Fertilizer
- 2 Correct/Adjust Temperature
- 3 Correct/Adjust Watering
- 4 Ladybird Beetles
- 5 Nematodes
- 6 Parasitic Wasps
- 7 Predatory Mites
- 8 Reduce Relative Humidity
- 9 No Treatment Listed

National FFA Organization | Career and Leadership Development Events **for West Virginia**

## Awards

Awards will be presented at an awards ceremony to individuals and/or teams based upon their rankings.

# References

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

- 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— Past CDE Q&A's, <https://www.ffa.org/resources/cde/questions-and-answers>
- 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. 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.
- FFA Resume Generator®, [resumegenerator.FFA.org](http://resumegenerator.FFA.org)