

OHIO CAREER DEVELOPMENT EVENTS  
FLORICULTURE

Effective August 1, 2004.

Purpose

The floriculture CDE is an educational activity designed as a practical method of teaching students to identify various horticulture plants, disorders, insects and diseases that affect the floriculture industry. The skills students learn in evaluating floriculture products gives them the opportunity to become better producers and consumers of these products. The written test and the practicum will truly test the student's ability to handle practical situations in the floriculture industry.

Date

State: Spring

Location

State: OSU/ATI

CDE Rules

1. Each school may enter an unlimited number of dues paid FFA members as participants, the top 4 scores will be considered the "team" and the top 3 scores will be the team score of record.
2. Under no circumstances will any contestant be permitted to touch or handle plant materials being used for identification purposes.
3. Any communication between contestants during the CDE will disqualify the contestant(s) from the CDE.
4. No team, team member, or team coach shall visit the CDE facilities to observe plant materials within a week of the event date. Any group or individual reported and proven to be doing this will be disqualified from the competition.
5. Any contestant caught cheating during the CDE will be disqualified.
6. Contestants must bring clipboards and number 2 pencils.
7. No cell phones, pagers, walkie talkies or any other communication device are allowed
8. No programmable calculators are allowed.

CDE Format

The CDE will have five phases including:

1. Plant Identification 35 specimens.( 35 common, 15 scientific)
2. Other Identification 50 specimens consisting of:  
Insects, diseases, weeds and disorders 20 specimens  
Supplies and equipment 25 specimens  
Floral pieces 5 specimens
3. Written Test 50 questions
4. Placing Classes 5 classes
5. Practicums 2 skills

Scoring Guide

1. Individual  
Plant Identification 75 points  
Other Identification 55 points  
Written Test 50 points  
Placing Classes 50 points  
Practicums 65 points  
Total Possible 295 points
2. Team  
295 points x 3 individuals  
= 885 Total Possible Points

Plant Identification (75 points, 50 minutes)

Fifty (35) specimens from the following list will be displayed for the contestants to identify by their common names. Contestants will also be responsible for identifying 15 of these specimens by their scientific names. The scorecard will be like the attached list of plant materials except the common names will be in alphabetical order. Scientific names from the flowering pot plant and foliage pot plant sections of this guide will also be listed in alphabetical order. All plants, cut flowers, live and dried floral materials will be tested for and alphabetically on the scorecard.

## Cut flowers

Common  
Acacia  
Yarrow  
Monkshood  
Agapanthus  
Allium  
Ginger  
Alstromeria  
Queen Anne's Lace  
Anemone  
Anthurium Flower  
Snapdragon  
Monte Casino Aster  
Astilbe  
Banksia  
Bouvardia  
China Aster  
Orchid Cattleya  
Cornflower  
Waxflower  
Larkspur  
Lily of the Valley  
Orchid cymbidium  
Delphinium  
Orchid dendrobium  
Chrysanthemum Spray  
Chrysanthemum Standard  
Carnation  
Carnation (miniature)  
Heather  
Lisianthus  
Forsythia  
Freesia  
Gardenia  
Gerbera  
Gladiolus  
Gladiolus Miniture  
Gypsophila  
Sunflower  
Heliconia  
Hydrangea  
Iris  
Leptospermum

## OCF (Short List)

Botanical  
*Acacia dealbata*  
*Achillea filipendulina*  
*Acontium napellus*  
*Agapanthus africanus*  
*Allium species*  
*Alpinia purpuata*  
*Alstroemeria hybrids*  
*Ammi majus*  
*Anemone coronatra*  
*Anthruium andareanum*  
*Anthirrhinum majus*  
*Aster ericodies*  
*Astilbe hybrids*  
*Banksia prionotes*  
*Bouvardia species*  
*Callistephus chinensis*  
*Cattleya species*  
*Centaurea cyanus*  
*Chamelaucium uncinatum*  
*Consolida ambigua*  
*Convallaria majalis*  
*Cymbidium species*  
*Delphinium elatum*  
*Dendrobium species*  
*Dentranthemum x grandiflorum*  
*Dentranthemum x grandiflorum*  
*Dianthus caryophyllus*  
*Dianthus caryophyllus nana*  
*Erica species*  
*Eustoma grandiflorum*  
*Forsythia x intermedia*  
*Freesia hybrids*  
*Gardenia augusta*  
*Gerbera jamesonii*  
*Gladiolus hybrids*  
*Gladiolus X colvilli*  
*Gypsophila paniculata*  
*Helianthus annuus*  
*Heliconia species*  
*Hydrangea macrophylla*  
*Iris hybrids*  
*Leptospermum species*

Pincushion Protea	<i>Leucospermum cordifolium</i>
Liatris	<i>Liatris spicata</i>
Lily Asiatic	<i>Lilium hybridum</i>
Lily Oriental	<i>Lilium hybridum</i>
Statice Caspia	<i>Limonium latifolium</i>
Statice Annual	<i>Limonium sinuatum</i>
Stock	<i>Matthiola incana</i>
Bells of Ireland	<i>Moluccella laevis</i>
Daffodil	<i>Narcissus pseudonarcissus</i>
Bells of Ireland	<i>Moluccella laevis</i>
Daffodil	<i>Narcissus pseudonarcissus</i>
Nerine Lily	<i>Nerine hybrids</i>
Oncidium Orchid	<i>Oncidium hybrids</i>
Star of Bethlehem	<i>Ornithogalum thyrsoides</i>
Orchid Phalaenopsis	<i>Phalaenopsis hybrids</i>
Pink Mink Protea	<i>Protea neriifolia</i>
Ranunculus	<i>Ranunculus asiaticus</i>
Rose Sweetheart	<i>Rosa hybrids</i>
Rose Spray	<i>Rosa hybrids</i>
Rose Standard	<i>Rosa hybrids</i>
Solidago (Golden Aster)	<i>Solidago species</i>
Solidaster	<i>Solidaster hybrids</i>
Stephanotis	<i>Stephanotis floribunda</i>
Bird -of- Paradise	<i>Strelitzia reginae</i>
Lilac	<i>Syringa vulgaris</i>
Tulip	<i>Tulipa hybrids</i>
Calla Lily	<i>Zantedeschia species</i>

### **Foliage Plant List**

Common	Botanical
Aluminum plant	<i>Pilea cadierei</i>
Arrowleaf (Nephtytis)	<i>Syngonium podophyllum</i>
Baby rubber plant	<i>Peperomia obtusifolia</i>
Boston fern	<i>Nephrolepis exalta</i>
Chinese evergreen	<i>Aglaonema speices</i>
Croton	<i>Codiaeum variegatum</i>
Dumbcane	<i>Diffenbachia species</i>
Grape ivy	<i>Cissus rhombifolia</i>
Hawaiian schefflera	<i>Schefflera arboricola</i>
Heart-leaf philodendron	<i>Philodendron scandens oxycardium</i>
Jade plant	<i>Crassula argentea</i>
Norfolk Island pine	<i>Araucaria heterophylla</i>
Parlor palm	<i>Chameaedorea speices</i>
Peace lily	<i>Spahtiphyllum hybrids</i>

Pothos	<i>Epipremnum aureum</i>
Prayer plant	<i>Maranta leuconeura erthroneura</i>
Red margined dracaena	<i>Dracaena cincta</i>
Rubber plant	<i>Ficus elastica</i>
Snake plant	<i>Sansevieria trifasciata</i>
Spider plant	<i>Chlorophytum comosum</i>
Wandering jew	<i>Tradescantia zebrina</i>
Weeping fig	<i>Ficus benjamina</i>

## Flowering Potted Plants Ohio FFA

Common	Botanical
African violet	<i>Saintpaulia ionantha</i>
Amaryllis	<i>Hippeastrum hybrids</i>
Azalea	<i>Rhododendron simsii hybrids</i>
Chrysanthemum	<i>Dendranthema X grandiflorum</i>
Cineraria	<i>Pericallis hybrida</i>
Crocus	<i>Crocus species</i>
Cyclamen	<i>Cyclamen persicum</i>
Easter lily	<i>Lilium longiflorum</i>
English primrose	<i>Primula vulgaris</i>
Gloxinia	<i>Sinningia speciosa</i>
Grape hyacinth	<i>Muscari species</i>
Holiday cactus	<i>Schlumbergera truncata</i>
Hyacinth	<i>Hyacinthus orientalis</i>
Hydrangea	<i>Hydrangea macrophylla</i>
Kalanchoe	<i>Kalanchoe blossfeldiana</i>
Paper white narcissus	<i>Narcissus tazetta 'Paper White'</i>
Persian violet	<i>Exacum affine</i>
Poinsettia	<i>Euphorbia pulcherrima</i>
Tulip	<i>Tulipa hybrids</i>

## Design Greens

Common	Botanical
Bear Grass	<i>Xerophyllum tenax</i>
Boxwood	<i>Buxus sempervirens</i>
Camellia Foliage	<i>Camellia japonica</i>
Cedar	<i>Cedrus species</i>
Croton	<i>Codiaeum variegatum</i>
Emerald Palm	<i>Chamaedorea species</i>
English Ivy	<i>Hedera helix</i>
Eucalyptus	<i>Eucalyptus species</i>
Galax	<i>Galax aphylla</i>
Hawaiian Ti	<i>Cordyline terminalis</i>
Holly	<i>Ilex aquifolium</i>
Horsetail	<i>Equisetum hyemale</i>
Huckleberry, Huck	<i>Vaccinium ovatum</i>
Italian Ruscus, Smilax Ruscus	<i>Ruscus aculeatus</i>

Leatherleaf, Bakerfern  
Myrtle  
Noble Fir  
Oregon Fern  
Pittosporum  
Plumousus  
Salal  
Scotch Broom  
Silver Fir  
Sprenger Asparagus Fern  
Tree Fern  
Silver Fir

*Rumohra adiantiformis*  
*Myrtus communis*  
*Abies procera*  
*Nephrolepis exaltata*  
*Pittosporumbira*  
*Asparagus Setaceus*  
*Gaultheria shallon*  
*Cytisus scoparius*  
*Abies alba*  
*Asparagus densiflours 'Sprengri'*  
*Asparagus pyramidalis*  
*Abies alba*

White Pine

*Pinus strobus*

## **Bedding Plants**

Ageratum  
Calabracoa  
Celosia  
Coleus  
Dusty miller  
Fuschia  
Geranium  
Impatiens  
Lobelia  
marigold  
new guinea impatiens  
non stop begonia  
osteospermum  
pansy  
petunia  
Petunia- wave  
portulaca  
salvia  
snapdragon  
Streptecarpis  
sweet alyssum  
Sweet potato vine  
verbena  
vinca- flowering  
vinca- trailing  
wax begonia  
zinnia

## **vegetables/Herbs**

**basil**  
**cabbage**  
**onion**  
**oregano**  
**pepper**  
**thyme**  
**tomato.**

## **Supplies and Equipment**

### **General Supplies**

bulb planter  
cell pack  
fertilizer injector  
flat  
floral preservative  
heating cable  
mechanical seeder  
perlite  
plug tray  
slow release fertilizer  
soiless media  
spaghetti tube  
sphagnum peat moss  
sprayer  
thermostat  
vermiculite  
water breaker

### **Florist Tools**

boutonniere pin  
casket saddle  
chenille stem  
chicken wire  
corsage pin  
corsage bag  
floral foam  
floral tape  
florist knife  
florist shears  
hyacinth stake  
paddle wire  
ribbon shears  
steel pick  
water tube  
waterproof tape  
waxed string  
wire easel  
wired wooden pick  
wristlet

### **Design containers**

centerpiece bowl  
compote  
bud vase  
ginger vase  
rose bowl

### **Container types**

azalea pot  
bulb pan  
hanging basket  
standard pot

## **Ribbon Sizes**

#3  
#9  
#40

## **Wires**

18 gauge  
24 gauge  
28 gauge

## **Floral arrangements and corsages**

cascading bouquet  
circular mound  
clutch bouquet  
colonial bouquet  
diagonal  
double end corsage  
equilateral triangle  
hogarth  
horizontal  
isosceles triangle  
right triangle  
vertical  
zig zag

## **Deficiencies**

nitrogen deficiency  
potassium deficiency  
phosphorus deficiency  
iron deficiency

## **Insects**

aphid  
fungus gnat  
mealybug  
2 spotted spider mite  
thrip  
whitefly  
scale

## **Diseases**

fungal leaf spot  
bacterial leaf spot  
bacterial stem rot  
root rot  
botrytis  
damping off  
powdery mildew

## Dried floral material

raffia  
sheet moss  
spanish moss  
wheat  
transparent oak  
eucalyptus

lotus pods  
german statice  
ting tings  
wheat

## Written Exam (45 minutes)

A written exam consisting of 25 true/false statements will administered to each contestant. Each question will be worth 1 point. Problem solving type questions may be incorporated into the exam.

## Placing Classes (50 points, 20 minutes)

Plants and flowers in each pot or container will be judged as a group and placed first, second, third, and fourth. Plants or flowers may not be touched or handled.

### 1. Cut flowers

four containers from one or more of the following groups will be judged.

- a. roses b. carnations c. standard chrysanthemums  
d. spray chrysanthemums

The following scale of points may be used as a basis of evaluation. \*Value in parentheses refers to max:  
Condition 25 Uniformity 10; freedom from bruise and blemish 5; substance 10)\*

Form 20-(Uniformity 5;immature or over mature 5; size and proportion 5)\*

tem and Foliage 20 (Uniformity 5; strength and/ or straightness 5; foliage quality 5; size and proportion 5)\*

Color 20 (Uniformity 5; intensity 5)\*

Size 15 (Uniformity 5; deduct point in relation to development and condition-oversized or undersized)\*

100 total

## 2. Flowering Potted Plants

Four plants from one or more of the following groups will be judged:

- a. Geranium  
b. Chrysanthemum  
c. African violet  
d. New Guinea Impatiens

The following scale of points may be used as a basis for evaluation.

Cultural perfection 40

Floriferousness (effect of floriferousness) 20

Size of plant 20

Color of bloom 10

Size of bloom 10

100 total

## 3. Foliage Plants.

Four plants from one or more of the following groups will be judged:

- a. Boston fern  
b. Dieffenbachia  
c. Philodendron  
d. English ivy  
e. Spathiphyllum  
f. Schefflera

The following scale of points may be used as a basis for evaluation.

Cultural perfection (health and vigor) 35 points

Size of plant 35 points

Form or symmetry 30 points

100 total

## Flower Arrangement

Four arrangements from one of the following classes will be judged:

- a. Circular mound
- b. Hogarth
- c. Horizontal
- d.. L-shaped
- e. Scalene triangle
- f. Symmetrical triangle
- g. Vertical

The following scale of points may be used as a basis for evaluation:

Design 50

Color 20

Mechanics 15

Condition 15

100 total

## Practicum

All contestants will complete a sales invoice described under Item A (32 points). On the day of the event, the event director will select one of the following four practicums - in which all contestants will participate.

The four additional practicums are:

Planting rooted chrysanthemum cuttings;

Decorating a potted chrysanthemum;

Making a corsage; and

Making a bud vase

Each student will be responsible for providing florist shears and a knife for making a corsage if this practicum is selected.

### 1. Sales Invoice (32 points, 5 minutes)

The contestant will be given a sample problem and a blank sales invoice upon arriving at the practicum site. The contestant will have seven minutes to complete the sales invoice. A current tax table will be provided.

### SAMPLE PROBLEM

Customer:

Mrs. Brenda Denlinger

428 Curry Ave.

Columbus, Ohio 43216

Phone 456-1213

Items Purchased:

One Sympathy Arrangement (no preference) at \$35.00

Occasion: Funeral

Recipient: Charles Davidson Services

Westland Funeral Home

Columbus, Ohio 43221-0990

Message: With Deepest Sympathy Mr. and Mrs. James Denlinger and Family

Date/Time of Viewing: 6 to 9 PM Monday

Customer will be billed

The customer called in the order by phone.

Connell's Flowers has a \$2.00 delivery charge within the city of Columbus.

### 2. Planting Rooted Chrysanthemum Cuttings

Cuttings - 33 points, 5 minutes

In this phase of the CDE, contestants will be given 10 rooted chrysanthemum cuttings from which to select five cuttings to plant in a 6 1/2 inch azalea pot. Appropriate potting mix, label, and pencil are provided for each contestant to use in completing this task. The time limit is five minutes.

#### BASIS FOR EVALUATION

Criteria #1-6, 5 points each and #7 worth 3 points= 33 points total

- 1 selection of uniform cuttings
- 2 filling pot with soil to proper depth
- 3 proper placement of cuttings
- 4 planting to proper depth

- 5 labeling of pot
- 6 watering of potted cuttings
- 7 general appearance (freedom from handling damage). 3 points

### 3. Decorating a Potted Chrysanthemum - 33 points, 6 minutes

In this phase of the event, the student will decorate a potted chrysanthemum using materials found at the event site. A potted chrysanthemum, florist wire, wire cutters, five different colors of wrap materials, five different colors of bow materials, scissors, and wood picks will be provided. Upon arriving at the practicum site, the student will read a card that will indicate a "holiday" situation that they must decorate the chrysanthemum for. A five minute time limit will be allotted for completion of this task. The finished product will be evaluated as follows:

- a. Remove all damaged or yellow foliage.
- b. Selection of foil for the pot. Foil should harmonize with the color of the blooms.
- c. Cut foil to proper length. Foil should extend 4" to 6" beyond the rim of pot.
- d. Properly fold and press the foil around the pot.
- e. Construct a #9 satin ribbon that will harmonize with the color of the flowers and foil.
- f. Width of the bow should be no wider than the width and span of the top pot to be decorated.
- g. Bow is firmly wired to a 6" wood pick.
- h. Select the most attractive side of the plant for placement of the bow (focal point).

### 4. Making a Corsage - 33 points, 10 minutes

In this phase of the event, the student will construct either a single or double flower corsage as per the instruction of the judge at the CDE site. When arriving at the practicum site, the student will find stems of flowers, foliage, floral tape, wire, ribbon, mist bottle, corsage pins, corsage bags and/or boxes, and accessories. Each student must provide their own floral shears and knife. A eight minute time limit will be allotted for completion of this task. The finished product will be evaluated as follows:

- a. Product is finished
- b. Design shape and style

- c. Harmony of materials
- d. Bow
- e. Mechanics
- f. Packaging
- g. Originality

### 5. Making a Bud Vase (33 Points, 7 min.)

In this phase of the event, the student will construct a bud vase with a bow, suitable for an office desk. When arriving at the practicum site, the student will find a bud vase, stems of the flowers, foliage, wire, ribbon and/or accessories. Each student must provide their own floral shears and cutting tool. A seven minute time limit will be allotted for completion of this task. The finished product will be evaluated as follows:

- a. Product is finished
- b. Design shape and style
- c. Harmony of materials
- d. Bow
- e. Mechanics
- f. Proportion
- g. Originality

A sample scorecard is located in this guide.

## References

The following references are available from the Ohio Ag Ed Curriculum Materials Service.

Books and Bulletins

A Manual for Flower Judging

Ball Pest and Disease Manual 2nd. edition

Tips on Growing Bedding Plants, 3rd. edition

The Introduction to Greenhouse Production, 2nd. edition, by Dr. Robert McMahonn, ATI

Floral Design and Marketing by Dr. Gary Anderson, ATI.

Slides Series

An Introduction to Greenhouse Work

Greenhouses and Related Structures  
Common Insects and Mites of Greenhouse Crops, Revised, 1985  
Managing Plant Health in the Greenhouse  
Diseases of Greenhouse Flower Crops  
Greenhouse Crops  
Pot "Mums"  
Poinsettia  
Easter Lilies.  
Geranium  
Bedding Plants  
Bedding Plant Equipment  
Crops for a Cool or Cold Greenhouse  
Foliage Plants  
Diagnosing Problems on Indoor Plants  
A General Health Guide for Indoor Plants  
Selecting and Using Pesticides on Indoor Plants  
Dried Materials  
Corsage Construction  
Silk Wedding Arrangements  
Floral Tributes  
Cut Florists Foliage and Branches  
Fresh Cut Florists Flowers  
Wedding Bouquets  
Wedding Decorations  
Computer Software  
Selecting House Plants  
Other References  
Ball Red Book, 16th edition, George J. Ball, Inc.  
The Commercial Greenhouse, 2nd. edition, James W. Boodley, Delmar Publishers  
Greenhouse Operation and Management, 5th edition, Paul

V. Nelson, Reston Publishing Company  
Bedding Plants IV, E. Jay Holcomb, Ball Publishing.8

### PRACTICUM A

#### SALES INVOICE SCORESHEET

Contestant Number \_\_\_\_\_

Contestant Name \_\_\_\_\_

School \_\_\_\_\_

Sales Score sheet values: 1.5 points per item= 30 points  
Neatness worth 2 points=32 points possible

1. Phone number

2. Date: month and day

3. Date/year

4. Customer name

5. Customer's street address

6. Customer's city, state, and zip code

7. Recipient's name

8. Recipient's address

9. Occasion

10. Message

11. Sender

12. Quantity

13. Description of Item

14. Price

15. Service charges

16. Tax

17. Phone/In store

18. Delivery date

19. Total price

20. Method of payment

21. Neatness

PRACTICUM B  
PLANTING CHRYSANTHEMUM CUTTINGS  
SCORECARD

Contestant Number \_\_\_\_\_

Contestant Name \_\_\_\_\_

School \_\_\_\_\_

Criteria #1-6 worth 5 points each, #7 worth 3 points each= 33 points possible

- 1 Selection of uniform cuttings
- 2 Filling pot with soil to proper depth
- 3 Proper placement of cuttings
- 4 Planting to proper depth
- 5 Labeling of pot
- 6 Watering of potted cutting
- 7 General appearance (freedom from handling damage)- 3 points

PRACTICUM C  
DECORATING A POTTED CHRYSANTHEMUM

Contestant Number \_\_\_\_\_

Contestant Name \_\_\_\_\_

School \_\_\_\_\_

(each listed below are worth 4 points each except the last one worth 1 point=33 points possible)

Removed all damaged or yellow foliage.

Selection of foil for pot. Foil harmonized with the color of the blooms.

Foil cut to proper length. Foil should extend 4" to 6" beyond the rim of the pot.

Properly folded and pressed the foil around the pot.

Constructed a #9 satin ribbon bow (no wider than the width of the pot) that harmonized with the color of the flowers and foil.

Bow firmly wired to a 6" wood pick.

Selected the most attractive side of the plant for placement of the bow (focal point).

Overall harmony and superior design (worth only 1 point).

PRACTICUM D  
MAKING A CORSAGE

Contestant Number \_\_\_\_\_

Contestant Name \_\_\_\_\_

School \_\_\_\_\_

Product is Finished 5 \_\_\_\_\_

Design Shape and Style 5 \_\_\_\_\_

Harmony of Materials 5 \_\_\_\_\_

Bow 5 \_\_\_\_\_

Mechanics 5 \_\_\_\_\_

Packaging 5 \_\_\_\_\_

Originality 3 \_\_\_\_\_

TOTAL POINTS (33) \_\_\_\_\_

PRACTICUM E

MAKING A BUD VASE

Contestant Number \_\_\_\_\_

Contestant Name \_\_\_\_\_

School \_\_\_\_\_

Product is Finished 5 \_\_\_\_\_

Design Shape and Style 5 \_\_\_\_\_

Harmony of Materials 5 \_\_\_\_\_

Bow 5 \_\_\_\_\_

Mechanics 5 \_\_\_\_\_

Proportion 5 \_\_\_\_\_

Originality 3 \_\_\_\_\_

TOTAL POINTS (33) \_\_\_\_\_