



# IOWA

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## FFA ASSOCIATION

### **FLORICULTURE** **Career Development Event** **This is a Skills CDE**

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**AG SKILLS CAREER DEVELOPMENT EVENT  
GENERAL POLICIES, RULES, RESULTS AND STANDARDS**

**\*Violations of any of the following rules may be grounds for the disqualification of the participants.**

**I. Board Policies**

The following board policies (<http://www.iowaffa.com/ffaboardpolicies.aspx>) apply directly or in part to Skills CDEs:

- Board Policy #2: Changes in Judging Event Answer Keys
- Board Policy #3: Changes to Judging Event Results
- Board Policy #11: Substitution of Team Members
- Board Policy #25: Advancement of Teams to National FFA Competition
- Board Policy #27: Use of Electronic Storage/Transmission Devices

**II. Eligibly of Chapters and Participants**

1. Each state event is open to all FFA chapters in good standing with the Iowa FFA Association. (Exception: Soils Career Development Event is open to the top five teams from each district competition.)
2. Local FFA advisors or their designee entering teams in the state event must register their intent to have a team on Iowa FFA On-Line (<http://anfmp01.dmac.edu/fmi/webd#>) by the due dates and registration fees listed below:
  - a. Before 14 days prior to the event No Charge
  - b. Between 14 days prior and day of the event \$50.00An invoice will be sent to the chapter for the appropriate entry fees at the end of the season.
3. A chapter may enter a separate team in each event held on a particular day. However, no member may participate in more than one Ag Skills Career Development Event on a particular day.
4. After an FFA Advisor registers the chapter's intent to enter a team, the names of the team members are expected to be entered on the Iowa FFA On-Line (<http://anfmp01.dmac.edu/fmi/webd#>) by noon three days prior to the event. Any member not listed on Iowa FFA On-Line will need to be registered as an FFA member using the National FFA MyFFA Account (<https://www.ffa.org>). Changes to online entries may be made the day of the event. State and National FFA Dues will be invoiced in accordance with Iowa FFA Association policies and by-laws.
5. A participant, at the time of his/her participation in the state event and selection as a national team member, must:
  - a. Be a current bona fide dues paying FFA member in good standing with the local chapter, state FFA Association and the National FFA Organization at the time of the career development event in which he/she participates.
  - b. Be a middle school or high school FFA member, (a graduating senior is considered eligible to compete in state and national career development events up to and including their first national convention following graduation). Middle school refers to students in grades 7-8 and high school refers to students in grades 9-12.
  - c. Have been enrolled in high school Agricultural Education during the current/most recent school year with the following exceptions: Meats, Livestock, Dairy Cattle and Milk Quality & Products-must have been enrolled the previous school year or be in grades 8-12 for the current year.
  - d. Currently be an active FFA member of the chapter making entry into the event.
6. A member may not participate in both a state 4-H and state FFA Career Development Event when said events are held on the same day.
7. Participation in one Ag Skills Career Development Event of its type will not exclude an active FFA member from participating in the future Ag Skills Career Development Event, if the participant still qualifies as a middle school or high school FFA member (Rule 5b) providing he/she was not on a state championship FFA CDE team or a national FFA participant in the said event.
8. No student may participate in more than one Career Development Event each year at the national level.

9. For the Soils Career Development Event, each district FFA advisor must email all results including a list of participants for each of the top five teams to the State FFA Executive Director within one business day of the district event.

### **III. Event Room Conditions**

10. Accommodations for participants can be made upon request of the FFA Advisor. The accommodation form must be submitted no less than 14 days prior to the respective event.
11. Any communication, verbal or non-verbal between participants during a career development event will be sufficient cause to eliminate the team member involved from the career development event. The only exception to this would be communication between team members during the team activity portion of a given career development event.
12. Any assistance given to a team member from any source other than the career development event officials or assistants will be sufficient cause to eliminate the team from the career development event.
13. No extra FFA members or other persons are permitted to view the state event until the completion of the event. The only people allowed in the event area during the event are participants and designated event workers. Observers and FFA advisors who are not working with the event will not be permitted in the event area while the event is in progress. The following are exceptions to this rule: the presentation portions of the Marketing Plan CDE and Ag Communications CDE at the Iowa FFA Leadership Conference.

### **IV. Participant Assignments**

14. Each participant will be given an individual ID number by which he/she will be designated throughout the event. Contestant badges with identification numbers may be issued.
15. Teams will be divided into groups for individual activities. When possible, groups will be assigned to avoid having two participants on the same team in the same group.
16. Each participant will work on an individual basis throughout the event except during the FFA chapter team activity. Each team will submit one score card or product per team for the team activity.

### **V. Equipment and Dress Code**

17. Participants are urged to bring and use clipboards during events to facilitate the holding of placing and grading cards. The clipboards are to be clean and free of markings. A few sheets of blank paper will be permitted for taking notes and recording results.
18. Calculators may be used with the Career Development Events. They must be battery or solar operated, non-programmable and silent, unless otherwise listed in the specific Career Development Event rules.
19. Items needed for specific phases of a Career Development Event will be noted under their specific rules.
20. Participants are expected to observe the National FFA Code of Ethics and the Proper Use of the FFA Jacket during the career development events found in the Official FFA Manual (<https://www.ffa.org/about/who-we-are/official-manual>).
21. Official FFA dress is expected for all participants when appropriate. If official dress is not appropriate, official casual dress should be worn. Official casual dress shall consist of 1) FFA t-shirt or polo shirt and 2) khaki or nice denim pants or shorts.

### **VI. Event Results**

22. In the event that ALL participants' scores are incorrect the board reserves the right to correct the results.
23. Each FFA advisor will receive the judging cards, score cards, answer sheets and results following a career development event and the presentation of awards. FFA advisors are not permitted to pick up event packets until after the awards presentation.

### **VII. AFNR Career Cluster Content Standards**

AFNR Content Standards are specifically outlined within each respective Skills CDE.

# Floriculture

**2020 Chairperson: Adam Crews, Letts**

**Coordinator:** TBA, Kirkwood Community College

**Committee Personnel:** Dave Tometich, Muscatine; Louis Beck, Retired; Dana Weeda, Denison; Louise Fleming, Vinton

**Scoring Coordinator:** TBD

## **I. Overview**

The purpose of this event is to stimulate the study and interest in production and retailing of flowers, plants, and foliage through the Agricultural Education curriculum.

- A. Identify floriculture and bedding plant materials.
- B. Identify and treat unhealthy plants due to pest, nutritional, mechanical or chemical injury.
- C. Understand the biological and scientific principles and develop the skills underlying propagation, growth requirements, growing techniques, harvesting, marketing and maintenance of established floriculture plants.
- D. Understand principles and develop skills of floral design.
- E. Understand and demonstrate the use of safety procedures and practices in floriculture operations.
- F. Identify and select appropriate supplies and equipment for the flower shop and greenhouse.
- G. Operate and maintain appropriate equipment for floriculture operations.
- H. Understand and demonstrate interpersonal skills prerequisite to successful employment in the floriculture industry.
- I. Understand and demonstrate proper sales and service skills.
- J. Maintain records and proper reports that are accurate and legible

## **II. AFNR Content Standards**

**ABS.02. Standard:** Utilize appropriate management planning principles in AFNR business enterprises.

**ABS.02.03. Indicator:** Apply appropriate management skills to organize a business.

**ABS.04. Standard:** Apply generally accepted accounting principles and skills to manage cash budgets, credit budgets and credit for AFNR businesses.

**ABS.04.01. Indicator:** Use accounting fundamentals to accomplish dependable bookkeeping and fiscal management.

**PS.01. Standard:** Apply knowledge of plant classification, plant anatomy and plant physiology to the production and management of plants.

**PS.01.02. Indicator:** Apply knowledge of plant anatomy and the functions of plant structures to activities associated with plant systems.

**PS.01.03. Indicator:** Apply knowledge of plant physiology and energy conversion to plant systems.

**PS.02. Standard:** Prepare and implement a plant management plan that addresses the influence of environmental factors, nutrients and soil on plant growth.

**PS.02.01. Indicator:** Determine the influence of environmental factors on plant growth.

**PS.02.02. Indicator:** Prepare growing media for use in plant systems.

**PS.02.03. Indicator:** Develop and implement a fertilization plan for specific plants or crops.

**PS.03. Standard:** Propagate, culture and harvest plants.

**PS.03.02. Indicator:** Develop and implement a plant management plan for crop production.

**PS.03.03. Indicator:** Develop and implement a plan for integrated pest management.

**PS.03.04. Indicator:** Apply principles and practices of sustainable agriculture to plant production.

**PS.04. Standard:** Employ elements of design to enhance an environment.

**PS.04.01. Indicator:** Create designs using plants.

### **III. Event Rules**

- A. Each school shall enter a team composed of three or four participants, with the top three scores counting for the team score. Team members must all be members of the same chapter.
- B. Each participant will participate in all phases of the event.
- C. Under no circumstances will any participant be allowed to touch or handle in any way any specimen in the identification phase of the event. Any infraction of this policy will be sufficient cause to eliminate the team from the event.
- D. No team members or advisors are to observe materials in the horticulture greenhouse at the Career Development Event site during the three weeks prior to the event date.
- E. Participants shall report to the chair of the event at the event site between 8:15 a.m. and 8:45 a.m. on event day.
- F. Answer sheets and other written materials will be furnished for each event phase.
- G. All plant materials will be furnished for the event.
- H. A special effort will be made not to use test questions or establish situations, which might be termed as controversial. In developing the event, special efforts will be made to use materials, which are generally accepted nationwide.
- I. Exhibits will be left out following the event for viewing and photographing by FFA chapter advisors and others.

### **IV. Event Format**

- A. Phase I -- General Knowledge Test (100 points) – 20 minutes  
Twenty-five (25) objective type multiple choice questions will be written that cover the areas of the floriculture industry reflected in the events objectives. This phase of the event will test participants' knowledge and understanding of basic biological and scientific principles of production and marketing flowers and foliage plants. Each participant will be allowed 20 minutes to complete this phase of the event. Each answer has a value of four (4) points.
- B. Phase II – Plant Identification (120 points) – 20 minutes  
Thirty (30) specimens will be displayed for participants to identify by their common names. Each specimen will be designated by a number. Each plant will be worth four points. All plant specimens will come from the official Floral Identification List for this contest on Form A.
- C. Phase III- Floral Design/Corsage (70 points) – 20 minutes  
This practicum is designed to evaluate the participants' ability to create and package a Floral Corsage. The type of corsage and information about the corsage will be announced by the event assistant in charge at the beginning of the practicum. All plants and non-plant materials needed to construct and package the corsage will be provided. Information about the floral corsage scoring is attached at the end of the rules. Form B will be used to evaluate the floral design product.
- D. Phase IV- Floral Production and Management (60 points) – 20 minutes  
Participants will answer 12 multiple-choice questions that could be arranged into five scenarios. Scenarios will be related to floricultural propagation, production, and/or management practices and could include their ability to read and interpret chemical labels. The production practices participants will need to know are plant cultural requirements based mainly on light, temperature, water, nutrient and media characteristics, but may also include disease and insect identification and treatment. The propagation practices presented will include selection of plants, the technique used and the methods of propagation and could include equipment identification used for growing and propagation.
  1. Floral Production and Management Resource List
    - a. Nutritional and Environmental Disorders
      - i. Poor soil drainage
      - ii. Overwatering damage
      - iii. Insufficient water damage
      - iv. Inadequate lighting
      - v. Too much lighting

- vi. Improper temperature
- vii. Iron deficiency
- viii. Nitrogen deficiency
- ix. Phosphorus deficiency
- x. Salt Damage
- b. Insects and Pests
  - i. Snails
  - ii. Slugs
  - iii. Whiteflies
  - iv. Aphids
  - v. Leaf miner
  - vi. Spider mites
  - vii. Mealy bugs
  - viii. Leafhopper
  - ix. Spittlebug
  - x. Scale
- c. Diseases
  - i. Powdery Mildew
  - ii. Leaf Spot
  - iii. Root Rot
  - iv. Damping Off
- d. Pesticide use and application could include:
  - i. Assessing the request or problem presented
  - ii. Reviewing alternate procedures or courses of action based on individual knowledge or reference information provided
  - iii. Deciding on a solution

E. Phase V – Problem-Solving/Decision-Making (60 points) – 20 minutes

Participants will solve twelve (12) problems related to the various aspects of the floriculture industry. Each problem will be worth 5 points. Each question will describe the situation associated with a problem and list four possible solutions. The participant must decide on the ONE BEST possible solution to the question.

These problems could be math-like problems associated from all other practicum areas: completing a price sheet for a corsage or flower arrangement to find quantities used, costs of quantities, tax, labor, final sale price, etc. Problems could also include fertilizer rates, propagation amounts, watering rates, mulching needs, chemical mixes, amounts, and rates, as well as any other calculations used in the floriculture industry. All materials and information necessary to solve the question will be available to the participant as she or he solves it.

F. Phase VI – Team Event (100 points) – 40 minutes (all team members working together)

Each team will perform a task normally performed in some phase of the floriculture industry that requires teamwork. The task will be **filling a sales order** for the industry, which will be design based. The team will be evaluated on their ability to interpret and carry out a sales order in a cooperative manner. Teams will be required to complete various floral designs from the following list, to be announced that day. Participants will NOT have to complete all of these on event day.

- |                      |                                    |
|----------------------|------------------------------------|
| 1. Bud Vase          | 6. One Sided Arrangement           |
| 2. Vase Arrangements | 7. Floral Halo                     |
| 3. Wreath            | 8. Funeral Bouquet                 |
| 4. Table Centerpiece | 9. Bridal Bouquet                  |
| 5. Boutonniere       | 10. Arrangement with Keepsake item |

The practicum will be evaluated using the rubric as included as Form C. Teams will be allowed a total of 40 minutes for this phase of the event.

## V. Event Resources

- A. Introductory Horticulture, 8<sup>th</sup> Edition, Reiley and Shry, Delmar/Cengage Learning, [www.cengage.com](http://www.cengage.com), ISBN-10: 9781435480391, 1435480392.
- B. Horticulture “Principles and Practice”, 4<sup>th</sup> edition, Pearson Prentice Hall, Upper Saddle River, New Jersey 07458.
- C. Iowa Core Manual: A Study for Commercial Pesticide Applicators and Handlers, Iowa State University Extension, 1999.
- D. Iowa Commercial Pesticide Applicators Manual. Category 3 (Ornamental, Turf, Greenhouse Pest Management) Iowa State University Extension, March 2003.
- E. National FFA Floriculture Career Development Event Rules and Resources

### **The following equipment should be brought by each school for use in this CDE:**

Floral Knives  
Wire Cutters  
Scissors  
Calculators  
Clipboards  
Pencils

## VI. Scoring and Ranking of Teams and Individuals

<u>Phases</u>		<u>Score</u>
General Knowledge Test	25 questions x 4 points	100
Plant Identification	30 questions x 4 points	120
Floral Design/Corsage		70
Floral Production and Management	5 scenarios, 12 questions x 5 points	60
Problem Solving	12 problems x 5 points	60
<b>Total Individual Points</b>		<b>410</b>
<b>Top 3 Participants Total Score Possible</b>		<b>1230</b>
Team Event		100
<b>Total Team Score Possible</b>		<b>1330</b>

- A. Team scores will be the sum of the scores of the three (3) top team members. The total of the possible points is 1,330.
- B. To determine the individual and team winners, the participants will be ranked based on the total score for all five (5) activity areas.
- C. If there is a tie in the total point score of an individual or team it shall be broken:
  - 1. first by the score on problem-solving activities;
  - 2. second on the score for general knowledge questions; and
  - 3. third on the total score for practicums.
- D. Teams will be ranked into groups: “Gold,” “Silver,” or “Bronze.” Teams which violate any rule will also receive a “Participation” rating.

**VII. Awards**

<b>Awards Sponsored through the Iowa FFA Foundation</b>	
Champion Team	Cash Award for travel to National Convention
Reserve Champion Team	Plaque
Top 10 Teams	Rosettes
Members of Top 10 Teams	Rosettes
Top 10 Individuals	Rosettes
1st and 2nd Place Individuals	Plaques
Top Team/Individual	Plaques
General Knowledge Test	
Problem Solving/Decision Making	
Identification of Plant Materials	
Floral Design/Corsage	
Floral Production and Management	
Top Team - Team Activity	Plaque
All Teams/Individuals	Certificates

**All awards subject to available sponsorship.**

**VIII. Event Materials**

- A. Floral Identification List
- B. Corsage Practicum Scorecard
- C. Team Event Practicum Scorecard



# Floriculture Identification

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- |   |   |
|---|---|
| 11 - Silver Vase Bromeliad/ <i>Aechmea fasciata</i>                         | 36 - Garden Gladiolus/ <i>Gladiolus x hortulanus</i>      |
| 12 - Ageratum/ <i>Ageratum houstonianum</i>                                 | 37 - Gerbera Daisy/ <i>Gerbera jamesonii</i>              |
| 13- Peruvian lily/ <i>Alstroemeria aurantiaca</i>                           | 38 - Baby's Breath/ <i>Gypsophila elegans</i> cv.         |
| 14 - Snapdragon/ <i>Antirrhinum majus</i>                                   | 39 - English ivy/ <i>Hedera helix</i>                     |
| 15 - Norfolk Island Pine/ <i>Araucarie heterophylla</i>                     | 40 - Sunflower/ <i>Helianthus annus</i>                   |
| 16 - Sprenger's Asparagus Fern/ <i>Asparagus densiflorus</i><br>'Sprengeri' | 41 - Florist Hydrangea/ <i>Hydrangea macrophylla</i> cv.  |
| 17 - Wax Begonia/ <i>Begonia x semperflorens</i> – cultorum cv.             | 42 - Impatiens/ <i>Impatiens hybrid</i> cv                |
| 18 - Octopus Plant/ <i>Schefflera arboricola</i>                            | 43 - Kalanchoe/ <i>Kalanchoe blossfeldiana</i>            |
| 19 - Fancy Leaved Caladium/ <i>Caladium x hortulanum</i>                    | 44 - Liatris/ <i>Liatris spicata</i>                      |
| 20 - Madagascar periwinkle/ <i>Catharanthus roseus</i>                      | 45 - Asiatic or Oriental Lily/ <i>Lilum hybridum</i> cv.  |
| 21 - Parlor Palm/ <i>Chamaedorea elegans</i>                                | 46 - Statice/ <i>Limonium sinatum</i>                     |
| 22 - Cockscomb/ <i>Celosia cristata</i>                                     | 47 - Sweet Alyssum/ <i>Lobularia maritima</i>             |
| 23 - Spider Plant/ <i>Chlorophytum comosum</i>                              | 48 - Prayer Plant/ <i>Maranta leuconeura</i>              |
| 24 - Florist's Chrysanthemum/ <i>Chrysanthemum x morfolium</i>              | 49 - Flowering Stock/ <i>Mitthiola incana</i> cv.         |
| 25 - Croton/ <i>Codiaeum variegatum pictum</i>                              | 50 - Boston Fern/ <i>Nephrolepis exaltata</i>             |
| 26 - Coleus/ <i>Solenostemon scutellariodes</i>                             | 51 - Zonal Geranium/ <i>Pelargonium x hortorum</i>        |
| 27 - Jade Plant/ <i>Crassula argentea</i>                                   | 52 - Common Garden Petunia/ <i>Petunia x hybrida</i>      |
| 28 - Florist's Cyclamen/ <i>Cyclamen x persicum</i> cv.                     | 53 - Heartleaf Philodendrom/ <i>Philodendron scandens</i> |
| 29 - Carnation/ <i>Dianthus caryophyllus</i>                                | 54 - Aluminum Plant/ <i>Pilea cadierei</i>                |
| 30 - Red Edged Dracana/ <i>Dracena cincta</i>                               | 55 - Florist Azalea/ <i>Rhododendron simsii</i> cv.       |
| 31 - Golden Pothos, Devil's Ivy/ <i>Epipremnum aureum</i>                   | 56 - Leatherleaf fern/ <i>Rumohra adiantiformis</i>       |
| 32 - Poinsettia/ <i>Euphorbia pulcherrima</i>                               | 57 - African Violet/ <i>Saintpaulia ionantha</i>          |
| 33 - Benjamin Fig/ <i>Ficus benamina</i>                                    | 58 - Salvia/ <i>Salvia splendens</i>                      |
| 34 - Rubber Plant/ <i>Ficus elastica</i>                                    | 59 - Snake Plant/ <i>Sansevieria trifasciata</i>          |
| 35 - Freesia/ <i>Freesia x hybrida</i>                                      | 60 - Dusty Miller/ <i>Senecio cineraria</i>               |
|   | 61 - Nephthytis/ <i>Syngonium podophyllum</i>             |
|   | 62 - Marigold/ <i>Tagetes</i> species                     |

<b>CORSAGE PRACTICUM SCORECARD---Form B</b>					
	<b>Possible Points</b>	<b>Needs Improvement</b>	<b>Good</b>	<b>Excellent</b>	<b>Participant Points</b>
Quality of Wiring and Taping	10	0-3	4-7	8-10	
Line	10	0-3	4-7	8-10	
Proportion of Flowers Used	10	0-3	4-7	8-10	
Strong Focal Area	5	0-2	3-4	5	
Filler and Foliage Usage	5	0-2	3-4	5	
Bow	10	0-3	4-7	8-10	
Correct use of products (pins, width of ribbon, placement of flowers)	5	0-2	3-4	5	
Packaging	3	0-1	2	3	
Overall Salability and Quality	12	0-4	5-9	10-12	
<b>Total Points</b>	<b>70</b>				

<b>TEAM EVENT PRACTICUM SCORECARD—Form C</b>					
	<b>Points Possible</b>	<b>Needs Improvement</b>	<b>Good</b>	<b>Excellent</b>	<b>Team Member Score</b>
<b><u>Teamwork and Planning</u></b>					
Member Participation in Planning and Carrying out of Activity	15	0-5	6-11	12-15	
Materials were Organized Prior to Commencing Activity	15	0-5	6-11	12-15	
Members had all necessary equipment with them	10	0-3	4-7	8-10	
<b><u>Quality of Activity Product</u></b>					
Accuracy of Customer Order	25	0-10	11-24	20-25	
Mechanics of Design	15	0-5	6-11	12-15	
Attractiveness	20	0-7	8-15	16-20	
<b>Total Score</b>	<b>100</b>				