



## Nursery Landscape CDE

### Purpose

The Nursery Landscape Career Development Event stimulates career interest, encourages proficiency development, and recognizes excellence in nursery practices and landscaping through the agricultural education curriculum. The event includes all aspects of the industry in producing, marketing, utilizing, and maintaining landscape plants in addition to related products, equipment, and services.

Objectives of this event include:

- (1) identification of landscape plant material and plant disorders,
- (2) utilization of cultural practices such as growing techniques,
- (3) design and construction of landscapes, and
- (4) demonstration of effective written and oral communication skills.

### Sponsor

This event is currently sponsored by the North Carolina Nursery and Landscape Association and Wilkes Community College.

### Superintendent

The superintendent for this event is Dr. Jason Davis, State FFA Coordinator, Department of Agricultural and Human Sciences, NCSU Box 7654, Raleigh, NC 27695-7654 Phone: 919.513.0216 Fax: 919.513.3201 Email: jason\_davis@ncsu.edu

### Eligibility

This event is open to all FFA chapters and FFA members in good standing. FFA Members may not participate in a Career Development Event that leads to a state level event after July 1, following their high school/early college graduation. Members winning a previous state event in this area or that have participated in a previous national event in this area are ineligible. This event will be held during the North Carolina State FFA Convention.

**Teams shall consist of three or four members. Four scores will count towards the team total (A three-member team will earn a zero for the 4<sup>th</sup> score).** No alternates are allowed in state events. Any alternate found participating in a state event will result in total team disqualification.

The top three individuals in the regional event are eligible to participate in the state event as individuals regardless of their team placing.

The use or possession of cellular phones or any other mobile electronic communication device is prohibited during any state-level career development event. Any violation of this rule by any team member will result in total team disqualification.

FFA members participating in career development events that require the use of calculators may only use non programmable/graphing calculators that do not have the ability to communicate with other calculators. Calculators will be screened prior to the start of a CDE for acceptability. Students caught using data stored on a calculator or communicating with other calculators will result in a total team disqualification for the event.

Any member found cheating in any state-level career development event will result in total team disqualification for that event.

**The North Carolina FFA Association, in keeping with the FFA mission and purposes, does not permit the use of tobacco products, e-cigarettes, vapes, or Juuls at any FFA facility or at any FFA activity.**

At the North Carolina FFA State Convention, participation in more than one FFA CDE event is permitted as long as events are not being held concurrently and no special provisions are required to facilitate participation with the exception that parliamentary procedure and public speaking and parliamentary procedure and Creed speaking which



are held concurrently will allow dual participation and special provisions for flighting.

## State Career Development Event Participation

The appropriate numbers of teams based on event participation from each region are eligible to compete in the state career development event. The top three individuals in the regional event are eligible to participate in the state event as individuals regardless of their team placing. Teams and individuals advancing to state event participation must be certified by the regional FFA advisor.

## Dress Code

Participants are required to follow the North Carolina FFA Career Development Event Dress Code. Participants are allowed to wear long pants, an appropriate shirt with a collar or an appropriate high school or FFA t-shirt.

***The North Carolina FFA Association strives to promote a positive image at all Official FFA Events. The dress code policy was established to address the issue of appropriate attire at all Official FFA Events. Members should adhere to this policy for all events. A ten percent reduction will be applied to all individual scores from a chapter if a participant from that chapter violates the dress code during that career event.***

## Procedures for Administering the Event

The general knowledge test and the identification activity will be the same for both the Floriculture and Nursery/Landscape Events at the regional level. At the state level, the identification for both events will be the same. There will be separate written tests at the state-level for the events.

Under no circumstances will any participant be allowed to touch or handle plant materials during the identification portion of the event. Any infraction of this rule will be sufficient cause to give that individual a zero on that phase of the event.

Any communication between participants during the event that would constitute giving help to that individual would result in both individuals getting a zero on that phase of the event. If an individual is suspected of copying someone else's paper, the participant will be given a personal quiet warning and if cheating continues, the one copying would be given a zero on that phase of the event.

To facilitate the holding of the scorecards, participants are allowed and encouraged to bring and use clipboards. These should be submitted to an event official to determine that they are free of written materials that might help a participant in the event. Identification papers and tests will be different colored papers for each of the two horticulture events.

## Regional Event Set-Up

The host school will have the responsibility in setting up the career development event, choosing career development event officials, judges and materials according to the following:

### Part 1: Identification (250 points)

Twenty-five plants will be chosen from the current list of ID plants and each plant will be numbered. Each contestant will be assigned a plant to begin the identification portion of the contest. Each contestant will remain at each plant for one minute then progress on to the next plant. No contestant will be permitted to return to a plant for a second time. Each plant will be worth 10 points and no plant will be used twice. Event officials will grade papers. Grading will be done by giving 10 points for each plant correctly identified. If it is observed that a participant uses the same number on their paper twice, neither number will be counted correct. 25 minutes.

### Part 2: Knowledge test (250 points)

A written knowledge test will be made up by the state staff or the horticulture staff at N. C. State University consisting of 25 multiple choice questions. The same test will be used in both the Floriculture and Nursery/Landscape Events. The



answer to these questions must be available in at least one of the references on the event reference list. The contestants will be given 25 minutes to complete the test and each question will be valued at 10 points. Copies of written tests will not be made available to teachers until the summer following the events.

### Part 3: Practicum (50 points)

Each participant will be asked to measure the diameter of five trees suitable for sale in an established nursery. Each student will be given a caliper and a ruler to use in completing this practicum. A student will start at plant number one and proceed to plant number two at the end of the first minute. At the same time, a second participant will start at plant number one. Students will rotate in this manner so that one student finishes and another student starts at the end of each minute. Students will continue in this manner until all participants in a group have completed the practicum. The students will record their answers and event officials will grade the participant's work. Students may earn a maximum of ten points per plant for a total score of fifty points. (Reference: American Standards for Nursery Stock.)

### Scoring Regional Event

<i>Maximum Score</i>	550
Identification	250
Knowledge Test	250
Practicum	50

### State Event Set-Up

The FFA Executive Secretary or Horticulture consultant shall be responsible for setting up the event, choosing event officials, judges and materials according to the following:

#### Part 1: Identification (500 points)

Fifty plants will be chosen from the current list of ID plants and each plant will be numbered. Each participant will be assigned a plant to begin identification. Each participant will remain at each plant for one minute then progress on to the next

plant. No participant will be permitted to return to a plant a second time. Handling the plant will result in the student receiving a zero on plant ID. Grading will be done by giving 10 points for each plant correctly identified. It is observed that a contestant uses the same number on their ID paper twice, neither number will be counted correct resulting in a penalty for using the same number. Teachers will grade the papers but should not grade papers of their own team.

#### Part 2: Knowledge test (500 points)

A written test will be made up by the state staff or horticulture staff at North Carolina State University. The test will consist of 30 multiple choice questions the answers to which must be found in at least one of the references on the event reference list. The test will consist of 30 general horticulture questions and 20 questions specific to the area of nursery landscape. The participants will be given 50 minutes to complete the test and each question will be valued at 10 points. Event officials will grade the papers. Agricultural Education Teachers should not see or have a copy of the test until the summer. No question should be used two years consecutively. 50 Minutes.

#### Part 3: Practicum (100 points)

This test is to be made up by state staff or horticulture staff at North Carolina State University and will consist of ten landscape situations to answer or solve with multiple choice answers given. Each question is worth ten points. At least three and not more than five of these questions should involve reading to a scale, calculations such as square feet, cubic feet, cubic yards, square yards, a number of plants required or costs of items including tax and discount rates. If a ruler is required, it is to be provided by event officials. No participants will be given extra time. 30 Minutes.

#### Part 4: Problem Solving (100 points)

Each student will be given a 10 question multiple choice problem solving test concerning floral plants, products, or situations. Each question will be worth 10 points. Event officials will grade these



papers. Some examples of these types of questions are as follow:

**Example 1:**

The plant sitting before you has twenty numbered tags indicating a possible pruning cut. What are the five primary cuts?

- A. 2, 17, 14, 10, 6
- B. 1, 10, 20, 12, 19
- C. 4, 7, 13, 16, 2, 1
- D. 7, 12, 4, 18, 11

**Example 2:**

The student is presented with some type of pest (insect, weed, and disease). Sitting in front of the participant will be four pesticides or the pesticides labels. Which of the pesticides could be used to control or eliminate the pest?

- A. Use Roundup
- B. Use A Rest
- C. Use Methyl Bromide
- D. Use Talstar

**Official Caliper Rule**

From the American Standards of Nursery, “Caliper measurement of the trunk shall be taken six inches above the ground up to and including four-inch caliper size. If the caliper at six inches above the ground exceeds four inches, the caliper should be measured at 12 inches above the ground.”

**Scoring State Event**

<i>Maximum Score</i>	<i>1200</i>
Identification	500
Knowledge Test	500
Practicum	100
Problem Solving	100

**Procedure for Determining the State Event Winner When Scores are Tied**

In the event a tie score exists, apply the following methods in sequential order until the tie is broken:

1. Compare the alternate scores. The lowest team member score is the alternate score.

2. Compare the total team scores for the problem solving component and the higher scoring team is the winner.
3. If scores continue to be tied compare the total team scores for the Identification component and the higher scoring team is the winner.
4. If scores continue to be tied compare the total team score for the knowledge test and the higher scoring team is the winner.
5. If these methods fail to break the tie, co-winners will be declared and a run-off event will be held to determine which team will represent North Carolina at the National FFA Convention. The run-off event will follow the same rules as the state event.

**Special Note:** In the event a tie exists between first, second or third place teams on the regional level, the tied teams will be allowed to participate in the state event.

**State Awards**

The awards for the state event will be presented annually at the state FFA convention to include a team 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place plaque and a travel monetary award.

**National Career Development Event Participation**

State winning teams advancing to the national career development event will be automatically registered for the national event. It is the responsibility of the FFA Chapter Advisor to complete all necessary national certification and waiver forms and return them to the state FFA Coordinator by the assigned due date.

State winning CDE teams that choose not to participate at the national level should contact the state office by Sept. 1 prior to national convention. Teams that fail to inform the state office prior to Sept 1 will be ineligible to participate in that same CDE for the next year (chapters may appeal to the State FFA Board of Directors). Teams that do not compete at the National Convention will be required to pay back the cash travel award.



## References

Tests used in previous state events are available to instructors who wish to use them as instructional aids. Please use the appropriate form included in Section Four of the State Guide to FFA Activities to request these materials.

A Guide to Field Identification-Trees of North America, C. Frank Brockman, 168 Golden Press, New York.

American Standard For Nursery Stock, Published by the American Association of Nurserymen, Inc., 1986, 1250 I Street, Suite 500, Washington, D.C. 20005.

Floral Design and Marketing, Gary Anderson, The Ohio State University, 2120 Fyffe Road. Columbus. Ohio. 43210.

Landscape Plants of the Southeast, Halfacre, Gordon, The Sparks Press.

\*Carolina Lawns, Circular Ag-69, North Carolina Extension Service.

\*Horticulture Today, by Riedel and Driscoll, Goodheart Wilcox Publishers, 2017.

\*Introductory Horticulture, Third Edition, by Riley and Shry, Delmar Publishers, 1987.

\*Landscaping: Principles and Practices, Third Edition, by Ingels, Delmar Publishers, 1987.

\*Principles of Floral Design: An Illustrated Guide, by Scace and DelPrince, Goodheart Wilcox Publishers, 2015.

\*Working in Horticulture, by Moore and Richardson, Gregg/McGraw Hill Book Co., 1980. Activity Guide, Teacher's Manual.

\*These references will be used primarily as sources for test items. Others are for use by teachers primarily.

Official Plant Identification List  
NC FFA Floriculture & Nursery/Landscape Contests

Plant specimens will be numbered 1-25 for the Regional Contest and 1-50 for the State Contest. Contestant is to write the appropriate number in the space beside the name of the specimen.

Contestant Name \_\_\_\_\_ Contestant # \_\_\_\_\_ Score \_\_\_\_\_

_____ Abelia X grandiflora/Glossy Abelia	_____ Cornus kousa/Chinese Dogwood
_____ Acer palmatum/Japanese Maple	_____ Cotoneaster dammeri/Bearberry
_____ Acer platanoides/Norway Maple	_____ X Cupressocyparis leylandii/Leyland Cypress
_____ Acer rubrum/Red Maple	_____ Crassula ovata/Jade Plant
_____ Ageratum mexicanum/Ageratum	_____ Crocus sativus/Crocus
_____ Aglaonema commutatum/ Aglaonema	_____ Cyclamen X persicum cv./Cyclamen
_____ Ajuga reptans/Ajuga	_____ Dianthus caryophyllus cv./Carnation
_____ Alstroemeria aurantiaca/Peruvian Lily	_____ Dieffenbachia maculata/Dumbcane
_____ Antirrhinum majus cv./Snapdragon	_____ Dizygotheca elegantissima 'Castor/ False Aralia
_____ Anthurium x andraenum/Anthurium	
_____ Araucaria heterophylla/Norfolk Island Pine	_____ Dracaena cincta/Red Edge Dracaena
_____ Asparagus densiflorus 'Sprengerii'/ Sprenger Fern	_____ Dracaena deremensis 'Warneckii'/Warneckii Dracena
_____ Asparagus setaceus/Plume Asparagus Fern	_____ Dracaena fragrans "Massangeana"/Corn Plant
_____ Astilbe cv./Astilbe Hybrids	_____ Echeveria cv./Hens and Chickens
_____ Aucuba japonica/Japanese Aucuba	_____ Echinaceae purpurea/ Cone Flower
_____ Begonia X semperflorens-cultorum/ Wax Begonia	_____ Elaeagnus pungens/Thorny Elaeagnus
_____ Berberis thunbergii/Japanese Barberry	_____ Epipremnum aureum cv./Golden Pothos
_____ Betula nigra/River Birch	_____ Eucalyptus polyanthemus/Silver Dollar Gum
_____ Buddleia davidii/Butterfly Bush	_____ Euonymus alata/Winged Euonymus
_____ Buxus microphylla var. japonica/ Japanese Boxwood	_____ Euonymus japonica or 'Variegata'/ Evergreen Euonymus
_____ Buxus sempervirens/Common Boxwood	_____ Euphorbia pulcherrima cv./Poinsettia
_____ Caladium x hortuanum cv./Fancy Leaved <u>Caladium</u>	_____ Ficus benjamina/Weeping or Benjamin Fig
_____ Camellia japonica cv./Common Camellia	_____ Ficus elastica 'Decora'/Decora Rubber Plant
_____ Camellia sasanqua/Sasanqua Camellia	_____ Fittonia verschaffeltii/Nerve Plant
_____ Canna X generalis/Canna	_____ Forsythia X intermedia/Border Forsythia
_____ Catharanthus roseus/Madagascar Periwinkle	_____ Freesia x hybrid/Freesia
_____ Cattleya cv./Cattleya Orchid Hybrid	_____ Fuchsia X hybrida/Fuchsia
_____ Celosia argentea cv./Cockscomb	_____ Gardenia jasminoides/Gardenia
_____ Cercis canadensis/Eastern Red Bud - Judas Tree	_____ Gerbera jamesonii/Gerber Daisy
_____ Chamaecyparis pisifera "Gold Mop"	_____ Gibasis pellucida/Tahitian Bridal Veil
_____ Chamaedorea elegans/Parlor Palm	_____ Ginkgo biloba/Ginkgo
_____ Chlorophytum comosum cv./Spider Plant	_____ Gladiolus X hortulanus/Gladiolus
_____ Chrysanthemum morifolium or Dendranthema X grandiflora/Florist Chrysanthemum	_____ Gleditsia tricanthos var. inermis/ Thornless Honeylocust
_____ Chrysanthemum X superbum/Shasta Daisy	_____ Gynura aurantiaca/Velvet Plant
_____ Cissus rhombifolia "Mandaiana"/Grape Ivy	_____ Gypsophila elegans cv./Babys Breath
_____ Clematis X jackmanii/Clematis Hybrids	_____ Hedera helix/English ivy
_____ Codiaeum variegatum var. pictum/Croton	_____ Hemerocallis cv./Day Lily
_____ Coleus X hybridus/Coleus	_____ Hibiscus sp./Hibiscus
_____ Cornus florida/Flowering Dogwood	_____ Hippeastrum cv./Amaryllis
	_____ Hosta sp./Hosta
	_____ Hoya carnosa/Wax Plant
	_____ Hydrangea macrophylla/French Hydra

- \_\_\_\_\_ *Iberis sempervirens*/Evergreen Candytuft
- \_\_\_\_\_ *Ilex X attenuata* 'Fosteri'/Fosteri Holly
- \_\_\_\_\_ *Ilex X attenuata* 'Savannah'/Savannah Holly
- \_\_\_\_\_ *Ilex crenata* "Compacta"/Compacta Holly
- \_\_\_\_\_ *Ilex x* "Nellie R. Stevens"/Nellie R. Stevens holly
- \_\_\_\_\_ *Ilex crenata* 'Helleri'/Helleri Holly
- \_\_\_\_\_ *Ilex cornuta* "Carissa"/Carissa Holly
- \_\_\_\_\_ *Ilex vomitoria* 'Nana'/Dwarf Yaupon
- \_\_\_\_\_ *Impatiens*/Impatiens Cultivars and Hybrids
- \_\_\_\_\_ *Iris X germanica* var *florentina*/Bearded Iris
- \_\_\_\_\_ *Iris xiphium*/Dutch Iris
- \_\_\_\_\_ *Juniperus conferta*/Shore Juniper
- \_\_\_\_\_ *Juniperus horizontalis* 'Plumosa,' 'Bar Harbor,'  
or 'Wiltonii' /Creeping Juniper
- \_\_\_\_\_ *Kalanchoe blossfeldiana*/Kalanchoe
- \_\_\_\_\_ *Lagerstroemia indica* cv./Crape Myrtle
- \_\_\_\_\_ *Lantana l.*/Lantana
- \_\_\_\_\_ *Ligustrum japonicum* cv./Japanese Privet
- \_\_\_\_\_ *Limonium* spp.
- \_\_\_\_\_ *Liquidambar styraciflua*/Sweetgum
- \_\_\_\_\_ *Liriope muscari*/Liriope(Green or Variegated cv.)
- \_\_\_\_\_ *Loropetalum chinensis*/Chinese fringe flower
- \_\_\_\_\_ *Magnolia grandiflora*/Southern Magnolia
- \_\_\_\_\_ *Magnolia X soulangiana* cv./  
Saucer Magnolia
- \_\_\_\_\_ *Malus* sp. or cv./Flowering Crabapple
- \_\_\_\_\_ *Maranta leuconeura* var.*kerchoviana*/  
Prayer Plant
- \_\_\_\_\_ *Myrica cerifera*/Wax Myrtle
- \_\_\_\_\_ *Nandina domestica*/Heavenly Bamboo  
Or Dwarf Nandina
- \_\_\_\_\_ *Narcissus* spp.
- \_\_\_\_\_ *Nephrolepis exaltata* cv./Boston Fern
- \_\_\_\_\_ *Ophiopogon japonicus*/Mondo Grass
- \_\_\_\_\_ *Osmanthus* sp.
- \_\_\_\_\_ *Pachysandra terminalis*/Japanese Pachysandra
- \_\_\_\_\_ *Paeonia* sp./Peony
- \_\_\_\_\_ *Pelargonium X hortorum*/Geranium
- \_\_\_\_\_ *Pelargonium peltatum*/Ivy Leaf Geranium
- \_\_\_\_\_ *Pennisetum alopecuroides*/Fountain Grass
- \_\_\_\_\_ *Peperomia caperata* 'Emerald Ripple'/  
Emerald Ripple Peperomia
- \_\_\_\_\_ *Peperomia obtusifolia*/Peperomia
- \_\_\_\_\_ *Petunia hybrida*/Petunia
- \_\_\_\_\_ *Phalaenopsis* cv./ *Phalaenopsis* (Butterfly) Orchid
- \_\_\_\_\_ *Philodendron scandens* var. *oxycardium*/Parlor Ivy
- \_\_\_\_\_ *Picea abies*/Norway Spruce
- \_\_\_\_\_ *Pieris japonica*/Japanese Andromeda
- \_\_\_\_\_ *Pinus mugo* var. *mugo*/Mugo Pine
- \_\_\_\_\_ *Pinus strobus*/Eastern White Pine
- \_\_\_\_\_ *Platanus x acerifolia*/London Plane Tree
- \_\_\_\_\_ *Plectranthus australis*/Swedish Ivy
- \_\_\_\_\_ *Prunus laurocerasus* 'Zabeliana'/Zabel Cherry  
Laurel
- \_\_\_\_\_ *Prunus serrulata* 'Kwanzan'/Japanese  
Flowering Cherry
- \_\_\_\_\_ *Pyracantha coccinea*/ Scarlet Firethorn
- \_\_\_\_\_ *Pyrus calleryana* 'Bradford'/Bradford Pear
- \_\_\_\_\_ *Quercus falcata*/Southern Red Oak
- \_\_\_\_\_ *Quercus nigra*/Water Oak
- \_\_\_\_\_ *Quercus palustris*/Pin Oak
- \_\_\_\_\_ *Quercus phellos*/Willow Oak
- \_\_\_\_\_ *Raphiolepis indica*/Indian Hawthorn
- \_\_\_\_\_ *Rhododendron catawbiense*/Catawba  
Hybrid Rhododendron
- \_\_\_\_\_ *Rhododendron kiusianum* or *Rhododendron*  
*obtusum japonicum*/Azalea
- \_\_\_\_\_ *Rosa* spp.
- \_\_\_\_\_ *Rumohra adiantiformis*/Leatherleaf Fern
- \_\_\_\_\_ *Saintpaulia ionantha*/African Violet
- \_\_\_\_\_ *Salvia splendens*/Salvia
- \_\_\_\_\_ *Schefflera actinophylla*/Schefflera
- \_\_\_\_\_ *Schefflera arboricola*/Dwarf Schefflera
- \_\_\_\_\_ *Schlumbergera bridgesii*/Christmas Cactus
- \_\_\_\_\_ *Schlumbergera truncata*/Thanksgiving cactus
- \_\_\_\_\_ *Sedum spurium* cv./Sedum
- \_\_\_\_\_ *Spathiphyllum* cvs./Peace Lily
- \_\_\_\_\_ *Syngonium podophyllum*/Nephtytis or  
Arrowhead Vine
- \_\_\_\_\_ *Tagetes* species/Marigold
- \_\_\_\_\_ *Taxus cuspidata*/Japanese Yew
- \_\_\_\_\_ *Thuja occidentalis*/American Arborvitae
- \_\_\_\_\_ *Tradescantia zebrina*/Purple Wandering Jew
- \_\_\_\_\_ *Tsuga canadensis*/Canadian Hemlock
- \_\_\_\_\_ *Tulipa* spp.
- \_\_\_\_\_ *Verbena hybrida*/ Garden Verbena
- \_\_\_\_\_ *Viola X wittrockiana*/Pansy
- \_\_\_\_\_ *Zelkova serrata*/Zelkova
- \_\_\_\_\_ *Zinnia elegans*/Zinnia

## NURSERY LANDSCAPE PRACTICUM

Contestant # \_\_\_\_\_

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

Plant #	Measurement	Possible Points	Contestant Points
1		10	
2		10	
3		10	
4		10	
5		10	

Total Points \_\_\_\_\_

**NOTE:** When grading this scorecard, the contestant's answer is correct if it is within + or - 1/8" on trees up to 1" in diameter and = or - 1/4" on trees 1" to 3" in diameter.