

Nursery and Landscape CDE

Rev. Nov 2016

Purpose

The purpose of the FFA Nursery/Landscape Career Development Event is to promote career interest, encourage proficiency development and recognize excellence in participants of the event which includes all aspects of the industry to produce, market, utilize and maintain landscape plants (woody and herbaceous plants and turf grasses), as well as related production and landscaping products, equipment and services including design.

Eligibility

This event is held during the Delaware State Fair. It is open to all high school FFA chapters and FFA members in good standing. Members that have participated in a previous national event or previous state winning teams in this area are ineligible.

A middle school division is also available.

Event Procedures

- A. Each team will be comprised of four team members. All four individual scores will be used to determine the final team score.
- B. This CDE will take place the first Thursday of the Delaware State Fair in the Centre Ice Rink, Registration begins at 8:30 am, with judging to begin at 9:00 am.
- C. Students are required to wear an FFA shirt, jeans, and closed toed shoes for this event.
- D. Coaches may accompany participants to the event site, but must then leave the area at the start of the event. At the conclusion of all event components, the superintendent will announce when participants and coaches may enter the competition area to review the materials and organization
- E. Under no circumstances will any participant be allowed to touch or handle plant materials or other specimens during the event except as expressly permitted in certain practicums.
- F. Any participant in possession of an electronic device in the event area is subject to disqualification.
- G. Each participant must have the following individual tools:
 - A clean clipboard
 - At least two No. 2 pencils
 - A ball-point pen
 - A calculator (Calculators used in this event should be battery operated, nonprogrammable and silent with large keys and large displays. Calculators may have only these functions: addition, subtraction, multiplication, division, equals, percent, square root, +/- key and one memory register. No other calculators are allowed to be used during the event.)
 - An architect's scale
 - An engineer's scale
 - Additional items allowed but not required include the following: a pocket-sized dictionary or electronic speller and a personal hand pruner or knife.

G. Materials provided by the state:

- Individual folder with scantron
- Two pieces of scrap paper

Event Format

1. Team Skills Challenge - 100 team points
Students will be given 3 scenarios from the list of 17, announced at the June DAAE meeting. The National FFA rubric will be used in scoring the team challenge.

This phase is designed to evaluate the team's ability to apply nursery/landscape knowledge and skills by completing a variety of hands-on and problem solving activities. Teams will be given a list of tasks which may be accomplished individually, in pairs or more as determined by the team members according to the skills, experience and preferences of each team member. After completing their tasks, team members may then assist other team members as time allows. Both objective questions and qualitative evaluations may be included in the task scoring. Some examples of activities include the following:

- Equipment specifications, maintenance and repair.
- Lawn care procedures and equipment operation.
- Hardscape procedures, e.g. pavers or retaining wall installation, irrigation pipe assembly.
- Chemical handling procedures, e.g. fertilizer or pesticide equipment calibration and application.
- Preparing business records, reports or invoices.
- Plant material quality in nursery grading and pruning maintenance.
- Written material problem solving.

Scoring of the separate tasks will be based on correct answers for objective questions or on criteria appropriate for the task recorded by a judge. Example criteria for a possible qualitative task in riding mower operation (one team member) might include: equipment checked, engine started, proper handling and speed in covering marked course, equipment properly shut down. All task scores will be converted to percentage scores recorded on the "Team Skills Challenge" scorecard with team points earned as the average percentage of all tasks assigned.

B. Individual Events

1. General Knowledge Examination—150 points
The objective, multiple choice questions will be prepared to evaluate the participants knowledge and understanding of basic horticultural principles in producing, marketing, using and maintaining landscape plants and turf and will be created using the last 3 years of National FFA Nursery and Landscape CDE Tests. Participants will record their answers on a scan form.

2. Identification of Plants, Pests, Disorders, Equipment and Supplies—150 points

Participants will identify items selected from the provided list covering the following categories:

- Plant Materials
- Pests and Disorders
- Equipment and Supplies

Plants to identify will be presented as intact, live specimens. Equipment may be either an intact item or photograph. Pest and disorder items may be presented as an intact specimen, photograph, or preserved specimen (herbarium sheet, insect mount, etc)

When a problem must be presented with an affected plant, a “disorder” label will be with the item to designate identification of the problem rather than the plant.

Each specimen will be designated by a station number. When the participant identifies the item, its name is then located on the identification list. The participant then records the number by that name on a scan form at the respective station number.

Each participant will be provided a copy of the list at the event site. No specimens or items may be touched or handled in any way.

3. Landscape Estimating– 100 points

This practicum is designed to evaluate participant knowledge of and ability in:

- Evaluating a landscape design
- Reading a landscape drawing
- Measuring and calculating materials needed to execute a landscape plan
- Evaluating factors that affect profitability of a landscape business.

A landscape drawing and scratch paper will be provided to the participants. There will be objective questions about the landscape plan. Participants will record their answers using a scan form. The questions will be taken from the previous 3 years of drawings from National Convention..

Scoring

Participant scores are the sum of the nine individual phases of the event, and team scores are the sum of the four team members scores plus the group portion of the team activity and team challenge. Possible points are as follows:

High School	Individual	Team
Examination	150	600
Identification	150	600
Landscape Estimation	100	400
Team Skills		100
Totals	400	1700

Tiebreakers

If needed in the case of tied individual or team total scores, final placings will be determined by comparing, in order, scores for the following:

1. Total of Identification
2. Total of Landscape Estimation
3. Written Exam

Awards

Awards will be presented to individuals and team based upon their rankings at the Delaware State Fair FFA Awards Breakfast. The first place team will represent Delaware at National FFA Convention, the second place team will represent Delaware at Big E.

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 CORE CATALOG

- Nursery/Landscape CDE materials: <http://shop.ffa.org>
- CDE Q&A’s: [FFA.org](http://ffa.org)

GENERAL REFERENCES

- Introduction to Horticulture. Current edition. Charles B. Schroeder, Eddie Dean Seagle, Lorrie M. Felton, John M. Ruter, William Terry Kell, and Gerard Krewer. Prentice-Hall, Inc., Englewood Cliffs, NJ. ISBN 0130364134
- Introductory Horticulture. Current edition. H. Edward Reiley and Carroll L. Shry, Jr. Clifton Park, NY: Delmar Cengage Learning. ISBN 9781435480391

- Ornamental Horticulture. Current edition. Jack Ingels. Delmar Publishers Inc., Albany, NY. ISBN-13: 9781435498167

- Introduction to Plant and Soil Science and Technology. Current edition. Ronald J. Biondo and Jasper S. Lee. Prentice-Hall, Inc., Englewood Cliffs, NJ. ISBN 0813432162

LANDSCAPE

- Landscaping Principles and Practices. Current edition. Jack Ingels. Delmar Publishers Inc., Albany, NY. ISBN 13: 9781428376410

- Landscaping Construction. Current edition. David Sauter. Delmar Publishers Inc., Albany, NY. ISBN 143549718X

- Introduction to Landscaping: Design, Construction, and Maintenance. Current edition. Ronald J. Biondo and Charles B. Schroeder. Prentice-Hall, Inc., Englewood Cliffs, NJ. ISBN 0133626385

- Landscape Training Manuals for Installation, Irrigation, and Maintenance Technicians. Current edition . National Association of Landscape Professionals, 950 Herndon Pkwy, Suite 450, Herndon, VA 20170 <http://www.landscapetechnician.net>

TURF

- Turfgrass Science and Management. Current edition. Robert D. Emmons. Delmar Publishers Inc., Albany, NY. ISBN 10: 1418013307

- Turfgrass Management. Current edition. A.J. Turgeon. Prentice-Hall, Inc. Boston. ISBN 0137074352

NURSERY

- Plant Propagation: Principles and Practices. Current edition. Hudson T. Hartmann, Fred T. Davies, Jr., Dale E. Kester, and Robert L. Genieve. Prentice Hall, Boston. ISBN 0135014492

- American Standard for Nursery Stock. Current edition. American Association of Nurserymen, Inc., 1250 I St., NE, Suite 500, Washington, DC. (available as a pdf file free to nonmembers at http://americanhort.org/documents/ANSI_Nursery_Stock_Standards_AmericanHort_2014.pdf)

SECONDARY REFERENCES

- Practical Horticulture. Current edition. Laura W. Rice and Robert P. Rice. Prentice-Hall, Inc., Englewood Cliffs, NJ. ISBN 0135038669

- Landscape Design: A Practical Approach. Current edition. Leroy G. Hannebaum. PrenticeHall, Inc., Upper Saddle River, NJ. ISBN 0130105813

- Manual of Woody Landscape Plants. Current edition. Michael A. Dirr. Stipes Publishing Co., Champaign, IL. ISBN 978-1-58874-868-3

- A Field Guide to Woody Landscape Plants of the Southeast. Current edition. Rex Bishop. Tea Olive Productions. Marietta, GA. ISBN 097253430X

- Nursery Management: Administration and Culture. Current edition. Harold Davidson, Roy Mecklenburg, and Curtis Peterson. PrenticeHall, Upper Saddle River, NJ. ISBN 0138579962
- Landscape Plants, Their Identification, Culture, and Use. Current edition. Ferrell M. Bridwell. Delmar Thomson Learning, Albany, NY. ISBN 0766836347
- Know It and Grow It III: A Guide to the Identification and Use of Landscape Plants. Current edition. Carl E. Whitcomb. Lacebark, Inc. Stillwater, OK. ISBN 0961310910
- Manual of Herbaceous Ornamental Plants. Current edition. Steven M. Still. Stipes Publishing Co., Champaign, IL. ISBN 0-87563-433-8.
- Herbaceous Perennial Plants: A Treatise on Their Identification, Culture, and Garden Attributes. Current edition. Allan M. Armitage, Stipes Publishing Co., Champaign, IL. ISBN 978-1-58874-868-3.
- Landscape Construction Procedures, Techniques, and Design. Current edition. Floyd Giles. Stipes Publishing Co., Champaign, IL. ISBN 0875638848
- The Turf Problem Solver: Case Studies and Solutions for Environmental, Cultural, and Pest Problems. Current edition. A.J. Turgeon and J.M. Vargas, Jr. J. Wiley, Hoboken, NJ. ISBN 9780471736196.

TRADE PERIODICALS

- American Nurseryman. American Nurserymen Publishing Co., Chicago, IL. <http://www.amerinnursery.com/>
- Grounds Maintenance. Primedia, Overland Park, KS., www.grounds-mag.com/
- Turf Magazine, plus several other on-line titles. Moose River Media LLC. www.turfmagazine.com/
- Interiorscape.com: A Forum for Interior Plantscape Professionals. www.interiorscape.com/

INDUSTRY CATALOGS

Many horticultural supply company catalogs can be utilized for reference support on tools, equipment and supplies that may not be illustrated in other sources.

- A.M. Leonard, Inc., 665 Spiker Road, Piqua, OH 45356 (513/773-2697 or <http://www.amleo.com/index1.html>)
- Hummert International, 4500 Earth City Expressway, Earth City, Mo. 63045, 800-325-3055 /phone <https://www.hummert.com>

WEBSITES AND PROBLEM SAMPLES

Visit the National FFA website at <http://www.ffa.org> for information on career development events, access to prior-year event materials and links to additional study aids. Additional links and resources will be included as they are developed or identified, along with the following links of the CDE sponsors:

- <http://www.stihlusa.com/information/>
- <http://www.kubota.com>
- <http://www.arysta-na.com>
- <http://www.treefund.org>
- <https://www.landscapeprofessionals.org/>