

NURSERY/LANDSCAPE

4 Member Team

IMPORTANT NOTE

Please thoroughly read the General CDE Rules Section at the beginning of this handbook for complete rules and procedures that are relevant to State FFA Career Development Events.

I. 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), as well as related production and landscaping products, equipment and services including design.

II. OBJECTIVES

- A. Nursery/Landscape Principles: To apply nursery and landscape principles and practices as they impact residential, commercial, public and recreational applications.
- B. Plant Materials: To demonstrate the ability to identify, select and utilize nursery and landscape plants, landscape materials, and turfgrasses commonly used in the United States.
- C. Plant Disorders: To demonstrate the ability to identify unhealthy plant conditions due to pests, nutritional/physiological disorders and mechanical/chemical injury.
- D. Cultural Practices: To demonstrate knowledge of the principles and skills involved in propagation, growth requirements, growing techniques, harvesting, sustainability, marketing and maintenance of landscape plants.
- E. Design and Construction: To demonstrate knowledge of the principles and techniques of landscape design and construction.
- F. Supplies and Equipment: To demonstrate the ability to identify, select, use and maintain appropriate supplies and equipment for nursery and landscape operations, including equipment and procedures in mechanization and automation.
- G. Safety: To demonstrate knowledge of safety practices in nursery and landscape operations.
- H. Interpersonal Relations: To demonstrate skills in oral and written business communications.
- I. Marketing: To demonstrate an understanding of marketing principles as well as proper sales and service skills.
- J. Records and Reports: To demonstrate the ability to prepare accurate and legible records and reports and to interpret business documents.

III. EVENT RULES

- A. 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.
- B. 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.

- C. Any participant in possession of an electronic device in the event area is subject to disqualification.

IV. EVENT FORMAT

A. Team Make-Up

Each school may enter only one team, consisting of 4 members, in this event, and only those schools without a team may enter up to three individuals to compete for individual awards. Only those students who are competing will be allowed to participate in the event. The score for a team will consist of a total of all four members.

B. Equipment

1. No personal tools or supplies, except for pencils and pens, may be brought to the event unless specified in the event description.
2. The contest superintendent will supply clipboards, sample scan sheets for marking, identification lists, and official scan sheet to be turned in.

C. Event Schedule

1. **Each contestant shall complete the event in the time allotted:**
 - a. General Knowledge
 - b. Identification of Plants, Pests/Disorders/Beneficial Insects, Equipment and Supplies (30 seconds at each station)
 1. Plant Identification
 2. Pests/Disorders/Beneficial Insects Identification (ID of diseases, insects and related pests, physiological problems, weeds, and beneficial insects)
 3. Equipment and Supplies Identification
 - c. Practicum (Each participant will participate in both of the activities)

D. General Knowledge (150 points)

1. This portion of the event will consist of 50 questions addressing content from *Introduction to Horticulture--Third Edition*, published by the Oklahoma Department of Career and Technology Education.
2. Each question is worth 3 points.
3. Questions may be of the multiple choice, true-false, and/or matching format(s).
4. Questions may or may not be written exactly as they are in the core. Although the exam will cover “general horticulture” knowledge, it will focus on nursery/landscape knowledge.

E. Plant Identification (125 points)

1. Each contestant will be required to identify 25 specimens (5 points each) from the Nursery/Landscape Identification list.
2. Contestants will receive an ID Card listing all possible specimens as shown on the attached list.
3. Contestants must place the ID number, representing the appropriate name, next to the number of the specimen to be identified.
4. Duplicate specimens may be used and may be represented by whole plants, stem cuttings, flowers, and/or a leaf or stem sample.

F. Plant Pests/Disorders/Beneficial Insects Identification (45 points)

1. Each contestant will be required to identify 15 specimens (3 points each) from the attached list.
2. Duplicate specimens may be used and may be represented by the actual organism (insect, fruiting bodies from pathogenic fungi, or weeds for example) and/or by symptoms on plant parts such as leaves, stems or roots.
3. When a problem is presented with an affected plant, a “Disorder” label will be with the item to designate identification of the problem rather than the plant.

G. Equipment and Supplies Identification (30 points)

1. Each contestant will be required to identify 10 pieces of equipment (3 points each) from the attached list.

H. Practicum (25 points each, 50 points total)

1. All contestants will participate in all practicums. Each practicum activity will consist of a hands-on task and/or up to twenty-five questions about the practicum activity.

This year’s two practicum activities are as follows:

1. Judging — This portion of the contest will consist of judging two classes of four like specimens of balled and burlapped shrubs or trees, containerized shrubs or trees, groundcovers, or bedding plants. Plants will be placed without reasons being given.
2. Equipment Maintenance — Tools from the list in Phase 3, a part for a tool, and/or an operating manual will be presented with answer choices of possible maintenance needs, corrective actions, and/or operating specifications. Examples of possible choices are low oil, uneven height setting, blade needs sharpening, incorrect gas:oil ratio provided, or replace broken handle. Equipment will be placed to allow observing all components in the answer choices without handling the item. If handling should be required, allowance for this will be stated with the answer choice. Students have 10 minutes to complete this phase.

General Knowledge150 Plant
Identification125
Plant Disorder Identification45 Equipment and
Supplies Identification30 Practicums
.....50 (25 each)

<u>Total Points</u>	
Individual.....	400
Team	
	1600

V. 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. Phase 2 – Identification Section
2. Phase 3 –Written Exam

VI. REFERENCES

Introduction to Horticulture--Third Edition, published by the Oklahoma Department of Career and Technology Education

Be sure to check out OSU's Department of Horticulture and Landscape Architecture FFA CDE website at <http://www.hortla.okstate.edu/research-and-outreach/programs/youth/nursery-CDE> for additional FFA-CDE information, including sample exams and photos for identification.

Always consult OCES Fact Sheets, accessible from the web address above, for the most up-to-date information.

VII. SUPPLEMENTAL MATERIALS AND FORMS

Nursery/Landscape CDE Materials <http://shopffa.org/products/129/CDE/>

Oklahoma State Nursery/Landscape FFA CDE Plant ID Card

Oklahoma State Nursery/Landscape FFA CDE Pests, Disorders and Beneficial Insect Card

Oklahoma State Nursery/Landscape FFA CDE Equipment and Supplies

Card Universal Form C #705C-1

National Contest Resources <https://www.ffa.org/participate/cdes/nursery-landscape>

Nursery/Landscape Plant Identification 2017-2021

1. *Abelia x grandiflora* / Glossy Abelia
2. *Acer palmatum* cv. / Japanese Maple
3. *Acer platanoides* cv. / Norway Maple
4. *Acer rubrum* cv. / Red Maple
5. *Acer saccharum* cv. / Sugar Maple
6. *Ajuga reptans* cv. / Carpet Bugle
7. *Amelanchier arborea* / Downy Serviceberry
8. *Antirrhinum majus* cv. / Snapdragon
9. *Aquilegia x hybrida* cv. / Columbine
10. *Astilbe x hybrida* cv. / Astilbe
11. *Begonia semperflorens-cultorum* / Wax Begonia
12. *Berberis x mentorensis* / Mentor Barberry
13. *Betula nigra* / River Birch
14. *Brassaia actinophylla* / Schefflera, Octopus Tree
15. *Buxus microphylla* cv. / Littleleaf Boxwood
16. *Camellia japonica* cv. / Common Camellia
17. *Cedrus atlantica* 'Glauca' / Blue Atlas Cedar
18. *Cercis canadensis* / Redbud
19. *Chaenomeles speciosa* cv. / Japanese (Flowering) Quince
20. *Clematis* hybrids / Clematis
21. *Cornus florida* cv. / Flowering Dogwood
22. *Cotoneaster dammeri* / Bearberry Cotoneaster
23. *Cotoneaster divaricatus* / Spreading Cotoneaster
24. *Crataegus phaenopyrum* / Washington Hawthorn
25. *Cynodon dactylon* cv. / Bermudagrass
26. *Echinacea purpurea* / Purple Coneflower
27. *Euonymus alatus* / Winged Euonymus
28. *Euonymus fortunei* cv. / Wintercreeper
29. *Festuca* spp. and cv. / Fescue
30. *Forsythia x intermedia* cv. / Border Forsythia
31. *Fraxinus americana* cv. / White Ash
32. *Gaillardia aristata* cv. / Common Blanketflower
33. *Gardenia jasminoides* 'Fortuniana' / Common Gardenia
34. *Ginkgo biloba* / Ginkgo, Maidenhair Tree
35. *Gleditsia triacanthos* f. *inermis* cv. / Thornless Honeylocust
36. *Hedera helix* cv. / English Ivy
37. *Hemerocallis* spp. and cv. / Day lily
38. *Hosta x hybrida* cv. / Plantain Lily
39. *Hydrangea quercifolia* / Oakleaf Hydrangea
40. *Hydrangea macrophylla* / Bigleaf Hydrangea
41. *Ilex cornuta* cv. / Chinese Holly
42. *Ilex crenata* cv. / Japanese Holly
43. *Ilex x meserveae* cv. / Meserve Holly
44. *Impatiens* hybrid cv. / Impatiens
45. *Iris x germanica florentina* cv. / Bearded Iris
46. *Juniperus chinensis* cv. / Chinese Juniper
47. *Juniperus horizontalis* cv. / Creeping Juniper
48. *Lagerstroemia indica* cv. / Crapemyrtle
49. *Leucanthemum x superbum* cv. / Shasta Daisy
50. *Liquidambar styraciflua* / Sweet Gum
51. *Liriodendron tulipifera* / Tuliptree
52. *Liriope* spp. cv. / Lily-Turf
53. *Lonicera japonica* 'Halliana' / Hall's Japanese Honeysuckle
54. *Magnolia grandiflora* cv. / Southern Magnolia
55. *Magnolia x soulangiana* cv. / Chinese (Saucer) Magnolia
56. *Mahonia aquifolium* cv. / Oregon Grapeholly
57. *Malus* spp. and cv. / Flowering Crabapple
58. *Nandina domestica* / Heavenly Bamboo
59. *Narcissus pseudonarcissus* cv. / Daffodil
60. *Nyssa sylvatica* / Sour (Black) Gum
61. *Pachysandra terminalis* / Japanese Spurge
62. *Paeonia* hybrid cv. / Peony
63. *Parthenocissus tricuspidata* / Boston Ivy
64. *Pelargonium x hortorum* cv. / Zonal Geranium
65. *Pennisetum ruppelia* / Fountain Grass
66. *Petunia x hybrida* cv. / Petunia
67. *Picea pungens* cv. / Colorado (Blue) Spruce
68. *Pieris japonica* / Lily-of-the-Valley Bush
69. *Pinus mugo* / Mugo Pine
70. *Pinus sylvestris* / Scotch Pine
71. *Pinus thunbergiana* / Japanese Black Pine
72. *Platanus x acerifolia* / London Planetree
73. *Poa pratensis* cv. / Kentucky Bluegrass
74. *Podocarpus macrophyllus* / Southern Yew
75. *Prunus laurocerasus* cv. / Cherry Laurel
76. *Pyracantha coccinea* cv. / Firethorn
77. *Quercus alba* / White Oak
78. *Quercus palustris* / Pin Oak
79. *Quercus rubra* / Red Oak
80. *Rhododendron catawbiense* / Catawba Hybrid
Rhododendron
81. *Rhododendron* hybrid / Exbury Hybrid Azalea
82. *Rosa* spp. Class Hybrid Tea cv. / Hybrid Tea Rose
83. *Salvia nemorosa* cv. / Meadow Sage
84. *Sedum* spp. / Sedum
85. *Solenostemon scutellarioides* / Coleus
86. *Spiraea x bumalda* / Bumalda Spirea
87. *Syringa vulgaris* cv. / Common Lilac
88. *Tagetes* spp. cv. / Marigold
89. *Taxodium distichum* / Bald Cypress
90. *Taxus* spp. and cv. / Yew
91. *Thuja occidentalis* cv. / American Arborvitae
92. *Tilia cordata* / Littleleaf Linden
93. *Tulipa* spp. cv. / Tulip
94. *Verbena x hybrida* cv. / Garden Verbena
95. *Viburnum x burkwoodii* / Burkwood Viburnum
96. *Viburnum trilobum* / American Cranberrybush Viburnum
97. *Vinca minor* cv. / Periwinkle
98. *Viola x wittrockiana* cv. / Pansy
99. *Wisteria sinensis* cv. / Chinese Wisteria
100. *Yucca filamentosa* / Adam's Needle

**OKLAHOMA STATE NURSERY/LANDSCAPE FFA-CDE
2017-2021 PESTS, DISORDERS AND BENEFICIAL INSECT IDENTIFICATION**

Diseases

101 Anthracnose	106 Cedar-Apple Rust
102 Apple Scab	107 Crown Gall
103 Black Spot	108 Fireblight
104 Botrytis	109 Powdery Mildew
105 Canker	110 Root Rot

Insects and Related Pests

111 Aphid	116 Scale
112 Bagworm	117 Snail/Slug
113 Borer	118 Spider Mite
114 Leafhopper	119 Whitefly
115 Leaf Miner	120 White Grub

Physiological Problems

121 Frost/Freeze Injury	125 Pot-bound Roots
122 Iron Deficiency	126 String Trimmer Injury
123 Leaf Scorch (drought/winter burn)	127 2,4-D Injury
124 Nitrogen Deficiency	

Weeds

128 Annual Bluegrass	134 Henbit
129 Broadleaf Plantain	135 Nutsedge
130 Buckhorn Plantain	136 Oxalis
131 Chickweed	137 Purslane
132 Crabgrass	138 Clovers
133 Dandelion	

Beneficial Insects

139 Lacewing	142 Praying Mantis
140 Lady Beetle	143 Spider
141 Paper Wasp	

**OKLAHOMA STATE NURSERY/LANDSCAPE FFA-CDE
2017-2021 EQUIPMENT AND SUPPLIES IDENTIFICATION**

201	Anvil-and-blade pruner	229	Hoe	257	Pruning saw
202	Ball cart (B&B truck)	230	Hook-and-blade pruners	258	Pump sprayer
203	Bark mulch	231	Hose-end repair fitting	259	Quick coupler
204	Bow saw	232	Hose-end sprayer	260	Quick coupler head adapter
205	Broadcast (cyclone) spreader	233	Hose-end washer	261	Reel mower
206	Bubbler head, irrigation	234	Hose repair coupling	262	Resin-coated fertilizer
207	Bulb planter	235	Impact sprinkler	263	Rotary mower
208	Bunker rake	236	Irrigation ring tool	264	Rototiller
209	Burlap	237	Landscape fabric	265	Round point shovel
210	Chain saw	238	Leaf rake	266	Scoop shovel
211	Compressed air sprayer	239	Loppers	267	Shade fabric
212	Core aerifier	240	Mattock	268	Sharpening stone
213	Cut-off machine	241	Measuring wheel	269	Siphon proportioner
214	Drip emitter, irrigation	242	Mist nozzle (mist bed)	270	Soaker hose
215	Dry-lock wall block	243	Mower blade balancer	271	Soil sampling tube
216	Edger (power or hand)	244	Nursery container	272	Solenoid valve
217	Edging	245	Oscillating sprinkler	273	Spade
218	Erosion netting	246	Peat moss	274	Sphagnum moss
219	Fertilizer injector	247	Pick axe	275	Square point (flat) shovel
220	Fertilizer tablet	248	Planting/earth/soil auger	276	String trimmer
221	Garden (spading) fork	249	Pole pruner	277	Thatch rake
222	Garden (bow) rake	250	Polyethylene pipe	278	Tree caliper
223	Grafting band	251	Pop-up irrigation head	279	Tree wrap
224	Grafting knife	252	Post-hole digger	280	Trowel
225	Granular fertilizer	253	Pot-in-pot units	281	Vertical mower
226	Gravity (drop) spreader	254	Power blower	282	Water breaker
227	Ground/pelleted limestone	255	Power hedge trimmer	283	Wire tree basket
228	Hedge shears	256	Propagation mat		

HOW TO GET HERE

