



# **Nursery/Landscape**





### **Purpose**

The purpose of the New Jersey 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.

### **Objectives**

Participants in the nursery/landscape CDE will be able to utilize the skills specific to each of the following categories:

- **Nursery/Landscape Principles:** Apply nursery and landscape principles and practices as they impact residential, commercial, public and recreational applications.
- Plant Materials: Demonstrate the ability to identify, select and utilize nursery and landscape
  plants (interior/exterior), landscape materials and turf grasses commonly used in the United
  States.
- **Plant Disorders:** Demonstrate the ability to identify unhealthy plant conditions due to pests, nutritional/physiological disorders and mechanical/chemical injury.
- **Cultural Practices:** Demonstrate knowledge of the principles and skills involved in propagation, growth requirements, growing techniques, harvesting, sustainability, marketing, and maintenance of interior and exterior landscape plants and turf grasses.
- Design and Construction: Demonstrate knowledge of the principles and techniques of landscape design, estimating and construction.
- **Supplies and Equipment:** 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.
- Safety: Demonstrate knowledge of safety practices in nursery and landscape operations.
- Interpersonal Relations: Demonstrate skills in oral business communications.
- **Business Management:** Demonstrate an understanding of marketing principles and business management as well as proper sales and service skills.
- Records and Reports: Demonstrate the ability to prepare estimates and complete financial statements.

### **Event Rules**

The complete rules, policies and procedures relevant to all New Jersey FFA Career and Leadership Development Events may be found in the CDE & LDE Event Participation Policy: https://nj.gov/agriculture/ag\_ed/ffa/activity/CDE\_LDE\_Policy.pdf

- Teams will consist of four members, and all four scores will count toward the team score.
- The team score is comprised of the combined scores of each individual and the team activity in which all team members will participate.
- Travel Official Dress is required during the event. Travel Official Dress includes boots or work shoes, black jeans or work pants, etc. as opposed to dress attire. Participants must come to the event prepared to work in adverse weather conditions. The event will be conducted regardless of weather. Participants should have rain gear, warm clothes and closed toed shoes.
- 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.
- Any communication between participants during the event will be sufficient cause to eliminate the team from the event.
- Any participant caught cheating during the event will be expelled from the event.
- Any assistance given to a participant from any source during the event, other than a floriculture event official, will be sufficient cause to eliminate the team from the event.

- Participants are NOT allowed to use (or have visible) electronic devices during the event, unless
  for medical reasons or a portion of the event requires usage. This includes cell phones, tablets,
  etc. Participants will be allowed to use calculators, if specified for that event; however, cell
  phone calculators and graphing calculators are not permitted! Failure to adhere to these rules
  will result in disqualification.
- All individuals participating will judge in a cooperative manner following the rules set forth by the event coordinator.
- No school/chapter will use Rutgers University or Delaware Valley University facilities or locations for the training of teams. Contact with University faculty and staff is permissible. **Penalty will be disqualification.**
- This event will be scored using "Scan-tron" sheets. It is important for students to listen to directions and fill out the sheets correctly in order to receive credit. Sample scan-tron sheets are available for practice on the State Activity Guide. This event uses the Horticulture (Multipurpose) scan-tron sheet.
- There will be no separate alternate teams.
- A student may not compete in more than one event during the New Jersey FFA Spring Career Development Events.
- The State level competition fee of \$11 per contestant will be paid by the competing school. If a chapter is at least blue affiliated, registration to state FFA career development events is waived.

### **Event Format**

#### **EQUIPMENT**

Each participant must have the following individual tools for the competition:

- A clean clipboard
- At least two No. 2 pencils
- A calculator Calculators used in this event should be battery-operated, nonprogrammable and silent with large keys and displays. Calculator functions should be limited to: addition, subtraction, multiplication, division, equals, percent, square root, +/- key and one memory register. No other calculators may be used during the event.
- An architect's scale
- An engineer's scale
- A hand pruner or knife.

#### **FLOW OF EVENT**

- General Knowledge Examination 30 minutes
- Identification of Plants, Pests. Disorders, and Beneficial Insects 30 minutes
- Landscape Estimating 30 minutes
- Verbal Customer Assistance 30 minutes OR Nursery Propagation or Potting 30 minutes
- Team Activity 30 minutes

#### **INDIVIDUAL EVENTS**

#### Phase 1: General Knowledge Examination (150 points per contestant)

Objective questions will be prepared on topics reflecting subject areas in the objectives. This phase will evaluate the participant's knowledge and understanding of basic horticultural principles in producing, marketing, using and maintaining landscape plants and turf. Participants will record their answers on a scan form.

#### Phase 2: Identification of Plants, Pests, Disorders, and Beneficial Insect (150 points per contestant)

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

- Plant materials will be presented as intact, live specimens, photos, plant parts or any combination.
- Pests and disorders will be presented as a damaged specimen, photograph or preserved specimen, herbarium sheet, insect mount, etc. A "disorder" label will be with an item to designate identification of a problem rather than the plant.
- Beneficial insects and other organisms that benefit the landscape by feeding on harmful organisms.

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.

#### Phase 3: Landscape Estimating (100 points per contestant)

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

- Evaluating a landscape design
- Reading a landscape drawing
- Determining materials needed to execute a landscape plan
- Maintenance, estimating and bidding
- 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.

#### Phase 4a: Verbal Customer Assistance (50 points per contestant)

This interpersonal relations practicum is designed to evaluate participant knowledge of and ability in the following areas:

- Verbal communication
- Sales and customer assistance skills
- Plant materials, plant culture and problems
- Nursery and landscape supplies and equipment

The participant will assume the role of a business customer service representative (garden center or other related business or an educational agency) responding to an assistance need of the customer or client (the judge). General themes might include, but are not limited to, the following: clinical diagnosis or recommendations; care advice; sales of plants, equipment, materials or treatments; dealing with complaints.

Each participant will be located at a separate station with one minute allotted to review the materials and information provided prior to arrival of the judge. These materials may be handled and referred to as appropriate for the conversation with the judge. Plants, disorders and supplies not listed on the material and plant resource lists will be communicated prior to the event. Scoring criteria are listed on the respective scorecard.

#### Phase 4b: Nursery Propagation or Potting (50 points per contestant)

- This practicum evaluates participant knowledge of and ability in performing fundamental nursery production practices. All participants will perform one of the following exercises. The selected exercise will not be announced prior to the start of the event.
- Propagating Nursery Stock: Each participant will be furnished with a stock plant or stock plant material, rooting flat and media, rooting hormone, a hand pruner, a label and marking pen.
   Personal propagating knives or pruners are allowed. Participants are to prepare the cuttings and place them in the media with a single label.

• **Potting Nursery Stock:** Each participant will be furnished with a supply of plants, nursery containers of appropriate size and growing media. Hand pruners, a label and a marking pen will also be provided. Personal pruners are allowed. The participants will pot the plants, one per container, using standard nursery practices. Plant division or grading of liners may be involved. One finished container will be labeled.

An official will observe and score each participant during the practicum. Following completion of the assigned practicum, the official will ask questions regarding the propagation or potting activity. Scoring criteria are listed on the respective scorecards.

#### **TEAM EVENT**

#### Team Skills Challenge (150-300 team points)

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. No equipment will be started during the event. Teams will be given a list of tasks that should be accomplished as a team. The number and type of activities will vary from year to year. General topic areas (not actual tasks) will be communicated in the team orientation packet. Both objective questions and qualitative evaluations may be included in the task scoring. Some examples of activities include the following:

- Determine equipment specifications and demonstrate pre-check operations.
- Demonstrate and/or explain lawn care procedures and equipment operation.
- Demonstrate and/or explain hardscape procedures, e.g., pavers or retaining wall installation, or irrigation pipe assembly.
- Demonstrate and/or explain chemical handling procedures, e.g., fertilizer or pesticide equipment calibration and application.
- Demonstrate and/or explain preparing service receipts.
- Demonstrate and/or explain plant material quality assessment.
- Demonstrate and/or explain pruning maintenance.
- Demonstrate and/or explain safety practices.

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.

### **Scoring**

Participant scores are the sum of the four individual phases of the event. Team scores are the sum of all members scores plus the group portion of the team skills challenge. Possible points are as follows:

|    | Phase  | Individual<br>Points | Team<br>Points |
|----|--|----------------------|----------------|
| 1. | General knowledge exam                                       | 150                  | 600            |
| 2. | Identification   | 150                  | 560            |
| 3. | Landscape estimating   | 100                  | 400            |
| 4. | Verbal customer assistance OR<br>Nursery propagation/potting | 50                   | 200            |
| 5. | Team Activity  |                      | 150-300        |
|    | POINT TOTALS   | 450                  | 1950-2,100     |

#### **TIEBREAKERS**

If needed in the case of ties, final placings will be determined by comparing, in order, scores for the following:

#### Individuals

- General knowledge exam
- Identification
- Landscape estimating

#### Teams

- General Knowledge Exam
- Identification
- Landscape Estimating

### **Awards**

Awards will be presented to individuals and the first place team based on their rankings at the CDE awards ceremony at the New Jersey State FFA Convention. Awards are sponsored by the National FFA Foundation and the New Jersey FFA Association.

The 1st place team will represent New Jersey at the National FFA Convention in October

#### Individuals

- Overall Medals
  - Medals Top three individuals
- H.O. Sampson Certificates (hands-on sections ONLY)
  - Certificate Top five individuals

#### Teams

• Plaque Sponsored by the National FFA Foundation – 1st place

### **References**

The following list of references is a guide to team training and is not meant to be all-inclusive.

Some content areas have more than one title listed. This reflects the wide array of quality references available for this event. No single reference is recommended as superior over others in that area. Multiple references are desirable as no single source is comprehensive for the entire nursery/landscape CDE. References other than those listed may be equally valuable resources, along with the many video and computer-based training aids available.

- Nursery/Landscape CDE materials, shop.FFA.org
- Past CDE materials and other resources are available on 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, N.J. ISBN 0130364134
- Introductory Horticulture. (Current edition.) H. Edward Reiley and Carroll L. Shry, Jr. Clifton Park, N.Y.: Delmar Cengage Learning. ISBN 9781435480391
- Ornamental Horticulture. Current edition. Jack Ingels. Delmar Publishers Inc., Albany, N.Y. 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, N.J. ISBN 0813432162

#### **LANDSCAPE**

- Landscaping Principles and Practices. (Current edition.) Jack Ingels. Delmar Publishers Inc., Albany, N.Y. ISBN 13: 9781428376410
- Landscaping Construction. (Current edition.) David Sauter. Delmar Publishers Inc., Albany, N.Y. ISBN 143549718X
- Introduction to Landscaping: Design, Construction, and Maintenance. (Current edition.) Ronald J. Biondo and Charles B. Schroeder. Prentice-Hall, Inc., Englewood Cliffs, N.J. 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, <a href="https://www.landscapeprofessionals.org/LP/Store/AllBooks/SET\_0050.aspx">https://www.landscapeprofessionals.org/LP/Store/AllBooks/SET\_0050.aspx</a>

#### **TURF**

- Turfgrass Science and Management. (Current edition.) Robert D. Emmons. Delmar Publishers Inc., Albany, N.Y. 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 https://www.americanhort.org/education/american-nursery-stock-standards/

#### **SECONDARY REFERENCES**

- Practical Horticulture. (Current edition.) Laura W. Rice and Robert P. Rice. Prentice-Hall, Inc., Englewood Cliffs, N.J. ISBN 0135038669
- Landscape Design: A Practical Approach. (Current edition.) Leroy G. Hannebaum. PrenticeHall, Inc., Upper Saddle River, N.J. ISBN 0130105813
- Manual of Woody Landscape Plants. (Current edition.) Michael A. Dirr. Stipes Publishing Co., Champaign, Ill. 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. Prentice-Hall, Upper Saddle River, N.J. ISBN 0138579962
- Landscape Plants, Their Identification, Culture, and Use. (Current edition.) Ferrell M. Bridwell.
   Delmar Thomson Learning, Albany, N.Y. 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, Okla. ISBN 0961310910
- Manual of Herbaceous Ornamental Plants. (Current edition.) Steven M. Still. Stipes Publishing Co., Champaign, Ill. 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, Ill. ISBN 978-1-58874-868-3.
- Landscape Construction Procedures, Techniques, and Design. (Current edition.) Floyd Giles. Stipes Publishing Co., Champaign, Ill. 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, N.J. ISBN 9780471736196.

#### TRADE PERIODICALS

- American Nurseryman. American Nurserymen Publishing Co., Chicago, Ill., http://www.amerinursery.com/
- 2. Turf Magazine plus several other on-line titles. Moose River Media LLC., www.turfmagazine.com/

#### **INDUSTRY CATALOGS**

- 1. Many horticultural supply company catalogs can be utilized for reference support on tools, equipment and supplies that may not be illustrated in other sources.
- 2. A.M. Leonard, Inc., 665 Spiker Road, Piqua, OH 45356 (513/773-2697 or https://www.amleo.com/)
- 3. Hummert International, 4500 Earth City Expressway, Earth City, Mo. 63045, 800-325-3055, https://www.hummert.com

#### **WEBSITES AND PROBLEM SAMPLES**

Additional links and resources will be included as they are developed or identified, along with the following links of the CDE sponsors:

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

# **Request for Reasonable Accommodations**

The New Jersey FFA Association is committed to providing equal access to our events and activities for all people. Use this form to request a reasonable accommodation or assistance at least 3 weeks before any state-level events: <a href="https://form.jotform.com/NJFFA/accommodations-request">https://form.jotform.com/NJFFA/accommodations-request</a>. A new form will need to be submitted for each event in which a reasonable accommodation is being requested. This information will be kept confidential and will be used only to process the request. Our staff will review the request upon receipt and contact the requestor with additional information. The association cannot guarantee accommodations or assistance if a form is received less than 3 weeks before an event. Accommodations being requested that require the assistance of another person (nurse, interpreter, scribe, reader, etc.) is the responsibility of the school/requestor. It is also the school/requestor's responsibility to provide any approved equipment to aide in the accommodation process, if applicable.

# **Nursery/Landscape Plant Identification**

| No. | Botanical Name                     | Common Name                    |
|-----|------------------------------------|--------------------------------|
| 101 | Abelia x grandiflora cv.           | Glossy Abelia                  |
| 102 | Acer palmatum cv.                  | Japanese Maple                 |
| 103 | Acer rubrum cv.                    | Red Maple                      |
| 104 | Acer saccharum cv.                 | Sugar Maple                    |
| 105 | Aglaonema commutatum               | 'Chinese Evergreen'            |
| 106 | Ajuga reptans cv.                  | Carpet Bugle                   |
| 107 | Amelanchier arborea                | Downy Serviceberry             |
| 108 | Aquilegia x hybrida cv.            | Columbine                      |
| 109 | Astilbe hybrid cv.                 | Astilbe                        |
| 110 | Begonia semperflorens-<br>cultorum | Wax Begonia                    |
| 111 | Berberis x mentorensis             | Mentor Barberry                |
| 112 | Betula nigra                       | River Birch                    |
| 113 | Buddleia davidii cv.               | Butterfly Bush                 |
| 114 | Buxus microphylla cv.              | Littleleaf Boxwood             |
| 115 | Camellia japonica cv.              | Common Camellia                |
| 116 | Cedrus atlantica 'Glauca'          | Blue Atlas Cedar               |
| 117 | Cercis canadensis                  | Redbud                         |
| 118 | Chaenomeles speciosa cv.           | Japanese (Flowering)<br>Quince |
| 119 | Clematis hybrid                    | Clematis                       |
| 120 | Cornus florida cv.                 | Flowering Dogwood              |
| 121 | Cotoneaster dammeri                | Bearberry Cotoneaster          |
| 122 | Crataegus phaenopyrum              | Washington<br>Hawthorn         |
| 123 | Cynodon dactylon cv                | Bermudagrass                   |
| 124 | Dieffenbachia maculata cv.         | Spotted Dumb Cane              |
| 125 | Dracaena deremensis<br>'Warneckii' | Striped Dracaena               |
| 126 | Dracaena fragens<br>'Massangeana'  | Corn Plant                     |
| 127 | Echinaceae purpurea                | Purple Coneflower              |
| 128 | Epipremnum spp.                    | Pothos                         |
| 129 | Euonymus alatus                    | Winged Euonymus                |
| 130 | Euonymus fortunei cv.              | Wintercreeper                  |
| 131 | Festuca spp. and cv.               | Fescue                         |
| 132 | Ficus benjamina                    | Benjamin Fig                   |
| 133 | Ficus elastica 'Decora'            | Decora Rubber Plant            |
| 134 | Forsythia x intermedia cv.         | Border Forsythia               |
| 135 | Fraxinus American cv.              | White Ash                      |

| No. | Botanical Name                       | Common Name                    |
|-----|--------------------------------------|--------------------------------|
| 136 | Gaillardia aristata cv.              | Common                         |
|     |                                      | Blanketflower                  |
| 137 | Gardenia jasminoides cv.             | Gardenia                       |
| 138 | Ginkgo biloba                        | Ginkgo, Maidenhair<br>Tree     |
| 139 | Gleditsia triacanthos<br>inermis cv. | Thornless Honeylocust          |
| 140 | Hedera helix cv.                     | English Ivy                    |
| 141 | Hellaborus orientalis cv.            | Lenten Rose                    |
| 142 | Hemerocallis spp. and cv.            | Day lily                       |
| 143 | Heptapleurum actinophylla            | Schefflera, Octopus<br>Tree    |
| 144 | Heptapleurum arbicola                | Dwarf Schefflera               |
| 145 | Heuchera cv.                         | Coral Bells, Alumroot          |
| 146 | Hibiscus syriacus cv                 | Rose of Sharon                 |
| 147 | Hosta x hybrida cv.                  | Plaintain Lily                 |
| 148 | Hydrangea macrophylla                | Bigleaf Hydrangea              |
| 149 | Hydrangea quercifolia                | Oakleaf Hydrangea              |
| 150 | Ilex cornuta cv.                     | Chinese Holly                  |
| 151 | llex crenata cv.                     | Japanese Holly                 |
| 152 | Ilex x meserveae cv.                 | Meserve Holly                  |
| 153 | Impatiens hybrid cv.                 | Impatiens                      |
| 154 | Itea virginica                       | Sweetspire                     |
| 155 | Juniperus chinensis cv.              | Chinese Juniper                |
| 156 | Juniperus horizontalis cv.           | Creeping Juniper               |
| 157 | Lagerstroemia indica cv.             | Crape Myrtle                   |
| 158 | Leucanthemum x superbum cv.          | Shasta Daisy                   |
| 159 | Liquidambar styraciflua              | Sweet Gum                      |
| 160 | Liriodendron tulipifera              | Tuliptree                      |
| 161 | Liriope spp. cv.                     | Lilyturf                       |
| 162 | Lonicera japonica 'Halliana'         | Hall's Japanese<br>Honeysuckle |
| 163 | Magnolia grandiflora cv.             | Southern Magnolia              |
| 164 | Magnolia x soulangiana cv.           | Chinese (Saucer)<br>Magnolia   |
| 165 | Mahonia aquifolia cv.                | Oregon Grape                   |
| 166 | Malus spp. and cv.                   | Flowering Crabapple            |
| 167 | Miscanthus sinensis cv.              | Miscanthus grass               |
| 168 | Myrica pensylvanica                  | Bayberry                       |
| 169 | Nandina domestica                    | Heavenly Bamboo                |

| No. | Botanical Name              | Common Name             |
|-----|-----------------------------|-------------------------|
| 170 | Nyssa sylvatica             | Sour (Black) Gum        |
| 171 | Pachysandra terminalis      | Japanese Spurge         |
| 172 | Paeonia hybrid cv.          | Peony                   |
| 173 | Parthenocissus tricuspidata | Boston Ivy              |
| 174 | Pelargonium x hortorum cv.  | Zonal Geranium          |
| 175 | Pennisetum ruppelia         | Fountain Grass          |
| 176 | Petunia x hybrida cv.       | Petunia                 |
| 177 | Philodendron scandens       | Heartleaf               |
|     | oxycardium                  | Philodendron            |
| 178 | Phlox paniculate            | Garden Phlox            |
| 179 | Phlox sublata cv.           | Moss Pink               |
| 180 | Picea abies                 | Norway Spruce           |
| 181 | Picea pungens cv.           | Colorado (Blue) Spruce  |
| 182 | Pieris japonica             | Lily-of-the-Valley Bush |
| 183 | Pinus mugo                  | Mugo Pine               |
| 184 | Pinus strobus               | Eastern White Pine      |
| 185 | Pinus thunbergiana          | Japanese Black Pine     |
| 186 | Platanus x acerifolia       | London Planetree        |
| 187 | Poa pratensis cv.           | Kentucky Bluegrass      |
| 188 | Podocarpus macrophyllus     | Southern Yew            |
| 189 | Potentilla fruticosa cv.    | Shrubby Cinquefoil      |
| 190 | Prunus laurocerasus cv.     | Cherry Laurel           |
| 191 | Prunus serrulata            | Kwanzan Japanese        |
|     |                             | Flowering Cherry        |
| 192 | Pyracantha coccinea cv.     | Firethorn               |
| 193 | Quercus alba                | White Oak               |

|     | Revised. Fei             | ordary 202+          |
|-----|--------------------------|----------------------|
| No. | Botanical Name           | Common Name          |
| 194 | Quercus palustris        | Pin Oak              |
| 195 | Quercus rubra            | Red Oak              |
| 196 | Rhododendron Hybrid      | Exbury Hybrid Azalea |
| 197 | Rhododendron x           | Catawba Hybrid       |
|     | catawbiense              | Rhododendron         |
| 198 | Rosa spp.                | Landscape/Shrub      |
|     |                          | Rose cv.             |
| 199 | Rudbeckia fulgida        | Black-eyed Susan     |
| 200 | Salvia nemorosa cv.      | Meadow Sage          |
| 201 | Sedum spp.               | Sedum                |
| 202 | Spiraea x bumalda        | Bumalda Spirea       |
| 203 | Syringa vulgaris cv.     | Common Lilac         |
| 204 | Taxodium distichum       | Bald Cypress         |
| 205 | Taxus spp. and cv.       | Yew                  |
| 206 | Thuja occidentalis cv.   | American Arborvitae  |
| 207 | Tilia cordata            | Littleleaf Linden    |
| 208 | Tsuga canadensis         | Canadian Hemlock     |
| 209 | Verbena x hybrida cv.    | Garden Verbena       |
| 210 | Viburnum trilobum        | American             |
|     |                          | Cranberrybush        |
|     |                          | Viburnum             |
| 211 | Viburnum x burkwoodii    | Burkwood Viburnum    |
| 212 | Vinca minor cv.          | Periwinkle           |
| 213 | Viola x wittrockiana cv. | Pansy                |
| 214 | Weigela florida          | Weigelia             |
| 215 | Wisteria sinensis cv.    | Chinese Wisteria     |
| 216 | Yucca filamentosa        | Adam's Needle        |

# **Pests, Disorders and Beneficial Insects Identification**

| No.    | Itom Nama        |
|--------|------------------|
|        | Item Name        |
| Pests  |                  |
| 217    | Aphid            |
| 218    | Bagworm          |
| 219    | Borer            |
| 220    | Leafhopper       |
| 221    | Leaf Miner       |
| 222    | Scale            |
| 223    | Spider Mite      |
| 224    | Snail/Slug       |
| 225    | Whitefly         |
| 226    | White Grub       |
| Diseas | ses              |
| 227    | Anthracnose      |
| 228    | Apple Scab       |
| 229    | Black Spot       |
| 230    | Botrytis         |
| 231    | Canker           |
| 232    | Cedar-Apple Rust |
| 233    | Crown Gall       |
| 234    | Fire blight      |
| 235    | Powdery Mildew   |
| 236    | Root Rot         |

| No.   | Item Name                         |
|-------|-----------------------------------|
| Weed  |                                   |
| 237   | Annual Bluegrass                  |
| 238   | Broadleaf Plantain                |
| 239   | Buckhorn Plantain                 |
| 240   | Chickweed                         |
| 241   | Crabgrass                         |
| 242   | Dandelion                         |
| 243   | Henbit                            |
| 244   | Nutsedge                          |
| 245   | Oxalis                            |
| 246   | Purslane                          |
| 247   | Clovers                           |
| Physi | ological Problems                 |
| 248   | Frost/Freeze Injury               |
| 249   | Iron Deficiency                   |
| 250   | Leaf Scorch (drought/winter burn) |
| 251   | Nitrogen Deficiency               |
| 252   | Pot-Bound Roots                   |
| 253   | String Trimmer Injury             |
| 254   | 2,4-D Injury                      |
| Benef | ficial Insects                    |
| 255   | Praying Mantis                    |
| 256   | Lady Beetle                       |
| 257   | Paper Wasp                        |
| 258   | Lacewing                          |
| 259   | Spider                            |

# **Potting Nursery Stock Practicum Scorecard**

#### **50 POINTS**

| Name | Member Number |
|------|---------------|
|      |               |

| Chapter | State | Team Number |
|---------|-------|-------------|
|         |       |             |

|  | Strong evidence<br>of skill<br>5-4 points  | Moderate evidence<br>of skill<br>3–2 points   | Weak evidence<br>of skill<br>1-0 points   | Weight    | Earned |
|--|--|---|---|-----------|--------|
| Potting Process (34 points)  |  |   |   |           |        |
| Preparation of Plants Handles plants properly selecting for quality and uniformity, inspecting/ pruning and grooming the damaged parts and pruning excess root length. | Plants are uniform in size and shape, properly handled, correct number selected, properly inspected, pruned and prepared for planting. | Plants are somewhat uniform in size and shape, somewhat properly handled, slightly off in correct number selected, failed to properly inspect, prune or prepare for planting. | Plants are not uniform in size and shape, poorly handled, correct number not selected, failed to properly inspect, prune or prepare for planting. | x 2       |        |
| Placement of Plants in<br>Containers<br>Plant centered and vertical<br>at the proper depth. Roots<br>carefully and properly spread<br>and covered.                     | entire root system is covered, leaving proper  | Minor amount of roots are<br>showing, planted slightly<br>too deep or shallow and set<br>somewhat correctly.  | A large amount of roots are<br>showing or plant stem is<br>covered with soil.   | x 2       |        |
| Media Filling and Settling Sufficient media added Media settled by bumping or hand firming Plant remains stable  | Growing media is filled to the inner lip of the pot, properly settled, stabilizing the plant in the container.                         | Growing media is filled slightly too high or low, media was improperly settled leaving the plant slightly unstabled.  | Growing media is left very low or completely fills pot, media was improperly settled leaving the plant unstabled.                                 | x 2       |        |
|  | 2 points   | 1 points  | 0 points  | Weight    | Earned |
| Labeling of Completed<br>Units<br>Legibly labeled with the<br>plant (variety) name and<br>date   | Legibly labeled with date<br>planted, plant name, and<br>cultivar.   | Somewhat legibly labeled with some but not all information required.  | Illegible or no label present<br>or labeled with incorrect<br>information.  | хl        |        |
| Safety Practices Applied Safety practices followed with proper cutting technique and tools stowed. Minimal clutter/good organization in                                | proper cutting technique,  | tools, using proper cutting   | Failed to follow safety<br>practices, - properly closing<br>tools and using proper<br>cutting technique, the work<br>area needs to be more        | хl        |        |
| work area  |  |   | organized.  |           |        |
| work area  |  | and Response to Questions  : 6 points for questions   | _ ~   |           |        |
| work area  |  | and Response to Questions: 6 points for questions 6-4 points  | _ ~   | Weight    | Earned |
| Quantity & Quality Overall quality, uniformity, and number of units completed  | 10-7 points  Required number of units completed; final product   | 6-4 points  6-4 points  Approximately 2/3 completed; final product  | (16 points)   | Weight X1 | Earned |
| Quantity & Quality Overall quality, uniformity, and  | 10-7 points  Required number of units completed; final product uniform, materials upright, clean/neat, commercially                    | 6 points for questions  6-4 points  Approximately 2/3 completed; final product moderately uniform, materials upright, clean/neat, generally                                   | (16 points)  3-0 points  Less than 2/3 of units completed; final product not uniform, materials vary in condition, generally non-                 |           |        |

Judge's NameJudge's SignatureDate

# **Propagating Nursery Stock Practicum Scorecard**

#### **50 POINTS**

NameMember NumberChapterStateTeam Number

|  | Strong evidence<br>of skill<br>5-4 points   | Moderate evidence<br>of skill<br>3–2 points  | Weak evidence<br>of skill<br>1–0 points   | Weight | Earned |
|--|---|--|---|--------|--------|
|  | Propaga   | tion Process (34 points)   |   |        |        |
| Removal of Cuttings Selects best quality uniform stock; Clean cuts at appropriate lengths  | Best stock selected and<br>clean cuts made at<br>appropriate length   | Most stock selected is of appropriate quality and mostly clean cuts made close to appropriate length.  | Cutting stock is of poor quality with poorly made cuts of an incorrect length.  | хl     |        |
| Preparation of Cuttings Angled or wounded basal cuts used in correctly prepared cuttings; correctly placed in relation to nodes. Cutting/buds not damaged. | Cuttings are correctly<br>prepared with angled or<br>wounded basal cuts withou<br>damage to the cutting or<br>the buds.                                 | Cuttings are mostly correctly prepared with angled or wounded basal cuts with minimal damage to the cutting or the buds.                             | Cuttings are incorrectly prepared with damage to the cutting or the buds.   | x 2    |        |
|  | 7-5 points  | 4-2 points   | 1-0 points  | Weight | Earned |
| Application of Proper<br>Hormone<br>Sufficient applied and excess<br>removed; Hormone kept<br>clean.   | Clean hormone applied in<br>sufficient amounts with<br>excess removed from<br>cutting.  | Clean hormone applied<br>without removing excess<br>from cutting.  | Failed to keep hormone<br>clean and applied sparingly.  | 1      |        |
|  | 8-6 points  | 5-3 points   | 2-0 points  | Weight | Earned |
| Placement of Cuttings in Media Proper medium depth, as applicable; Media furrow cut and closed; Proper sticking depth; Efficient row and cutting spacing.  | Cuttings are placed at the<br>proper depth in medium<br>with furrow cut and closed;<br>Cuttings are placed in<br>efficient rows and cutting<br>spacing. | Cuttings are mostly placed at the proper depth in medium with furrow cut and closed; Most cuttings are placed in efficient rows and cutting spacing. | Few or no cuttings are placed at the proper depth in medium with furrow cut and closed; Cutting rows or poor and spacing inappropriate. | 1      |        |
|  | 2 points  | 1 points   | 0 points  | Weight | Earned |
| Labeling of Completed Units<br>Legibly labeled with the plant<br>(variety) name and date   | Legibly labeled with date planted, plant name, and cultivar.  | Somewhat legibly labeled<br>with some but not all<br>information required.   | Illegible or no label present<br>or labeled with incorrect<br>information.  | хl     | 2      |
| Safety Practices Applied Safety practices followed with proper cutting technique and tools stowed. Minimal clutter/good organization in work area          | using proper cutting<br>technique, and<br>maintaining work area.  | Followed most safety<br>practices, - properly closing<br>tools, using proper cutting<br>technique, and maintaining<br>work area fairly well.         | cutting technique, the work area needs to be more organized.  | х1     | 2      |
|  |   | y and Response to Question<br>5 points for questions   | ns (16 points)  |        |        |
|  | 10-7 points   | 6-4 points   | 3-0 points  | Weight | Earned |
| Quality of Units Completed  Overall quality and uniformity of lot  | Final product presented to<br>the judge with plants<br>upright, pot clean, and in<br>sellable condition   | Final product presented to<br>the judge with plants<br>upright, pot clean, and in<br>sellable condition  | Final product presented to<br>judge in non-sellable<br>condition  | X1     |        |
|  | 6-5 points  | 4-2 points   | 1-0 points  | Weight | Earned |
| Response to Questions  | Answered questions correctly  | Answered some questions correctly  | Did not or incorrectly answered questions.  | X1     |        |
|  | TOTAL POINTS EAR  | NED OUT OF 50 POSSIBLE   |   | _      |        |

Judge's Name

Judge's Signature

Date

Judges please award points as whole numbers only, no fractions

# **Verbal Customer Assistance Rubric**

#### **50 POINTS**

| Name    |       | Member Number |
|---------|-------|---------------|
| Chapter | State | Team Number   |

| Indicator                   | Very strong evidence<br>of skill is present<br>5-4 points  | Moderate evidence of skill is present 3–2 points  | Weak evidence<br>of skill is present<br>1-0 points  | Points<br>Possible | Points<br>Earned |
|-----------------------------|--|---|---|--------------------|------------------|
| First impression            | Individual identifies themselves with a good first impression.   | Individual mostly identifies themselves with a good first impression.   | Individual poorly identifies themselves with a good first impression.   | 5                  |                  |
| Personal rapport            | Individual asks questions<br>and utilizes information from<br>answers in an attempt to<br>build personal rapport.                                      | Individual mostly asks questions<br>and utilizes information from<br>answers in an attempt to build<br>personal rapport.                                      | Individual poorly asks questions and utilizes information from answers in an attempt to build personal rapport.   | 5                  |                  |
| Clarifying questions        | Individual asks questions to learn about the customer's situation and to confirm preliminary customer information.                                     | Individual mostly asks questions<br>to learn about the customer's<br>situation and to confirm<br>preliminary customer<br>information.                         | Individual poorly asks questions to learn about the customer's situation and to confirm preliminary customer information.                                     | 5                  |                  |
| Needs and wants             | Individual confirmed and discovered customer needs and wants.  | Individual mostly confirmed and discovered customer needs and wants.  | Individual poorly confirmed and discovered customer needs and wants.  | 5                  |                  |
| Features and benefits       | Individual applied features<br>and benefits of their product<br>to the customer's<br>needs/wants.  | Individual mostly applied features and benefits of their product to the customer's needs/wants.   | Individual poorly applied features and benefits of their product to the customer's needs/wants.   | 5                  |                  |
| Matching needs<br>and wants | Individual allows customer to participate in matching their wants/needs to the product features.   | Individual mostly allows<br>customer to participate in<br>matching their wants/needs to<br>the product features.  | Individual poorly allows customer to participate in matching their wants/needs to the product features.   | 5                  |                  |
| Trial close                 | Individual uses appropriate technique to confirm customer understanding.   | Individual mostly uses<br>appropriate technique to<br>confirm customer<br>understanding.  | Individual poorly uses appropriate technique to confirm customer understanding.   | 5                  |                  |
| Objections                  | Student listens and clarifies customers objections and discusses the features/benefits of the product information to address the customers objections. | Student mostly listens and clarifies customers objections and discusses the features/benefits of the product information to address the customers objections. | Student poorly listens and clarifies customers objections and discusses the features/benefits of the product information to address the customers objections. | 5                  |                  |
| Close transaction           | Student closes or attempts to close the transaction.   | Student mostly closes or attempts to close the transaction.   | Student poorly closes or attempts to close the transaction.   | 5                  |                  |
| Active listening            | Individual actively listens to comments and answers from the customer.   | Individual mostly listens to comments and answers from the customer.  | Individual poorly listens to comments and answers from the customer.  | 5                  |                  |

| Judge's Name | Judge's Signature | Date |
|--------------|-------------------|------|

# **Nursery/Landscape Team Skills Challenge**

#### **150-300 POINTS**

The Team Skills Challenge has three stations of 10 minutes each valued at 150-300 points. Each skill may take up to 10 minutes to complete.

|         | Total Points | of 300    |             |
|---------|--------------|-----------|-------------|
| H.      | Score        | points of | possible    |
| G.      | Score        | points of | possible    |
| F.      | Score        | points of | possible    |
| E.      | Score        | points of | possible    |
| D.      | Score        | points of | possible    |
| C.      | Score        | points of | possible    |
| В.      | Score =      | points of | possible    |
| A.      | Score =      | points of | possible    |
| Chapter |              | State     | Team Number |

Judge's Name Judge's Signature Date

| Skill Number | Skill Title                             | Points |
|--------------|---|--------|
| 1            | Plant Layout                            | 100    |
| 2            | Basic Program Controller                | 100    |
| 3            | Irrigation Zone Installation and Repair | 100    |
| 4            | Line Trimmer                            | 50     |
| 5            | Chainsaw                                | 50     |
| 6            | Edger                                   | 50     |
| 7            | Power Blower                            | 50     |
| 8            | Surveying Instrument                    | 100    |
| 9            | Push Mower                              | 50     |
| 10           | ZTR Mower                               | 50     |
| 11           | Intermediate Walk-Behind Mower          | 50     |
| 12           | Sod Installation                        | 100    |
| 13           | Tree Planting                           | 100    |
| 14           | Grading and Draining                    | 100    |
| 15           | Paver Installation                      | 100    |
| 16           | Skid Steer Loader Operation             | 50     |
| 17           | Pruning                                 | 100    |
| 18           | Fertilizer Application                  | 50     |
| 19           | Service Receipt                         | 50     |
| 20           | Wall Installation                       | 100    |
| 21           | Shrub/Perennial Installation            | 100    |

#### **PLANT LAYOUT SCORECARD**

| Name(s)                                 |                                 | State              | leam i             | Number           |
|---|---------------------------------|--------------------|--------------------|------------------|
|   | Criteria                        | Points<br>Possible | Points<br>Deducted | Points<br>Earned |
| Placement of Plant Material             |                                 |                    |                    |                  |
| Plant placed within 6 inches +/- of co  | rrect placement (5 points each) | 20                 |                    |                  |
| Facing of Plant Material                |                                 |                    |                    |                  |
| Plant faced properly (5 points each)    |                                 | 20                 |                    |                  |
| Handling of Plant Material              |                                 | ·                  |                    |                  |
| Plant handled properly (5 points each   | ۱)                              | 10                 |                    |                  |
| Correct Viewpoint                       |                                 | 5                  |                    |                  |
| Explain Plant Care                      |                                 | 5                  |                    |                  |
| Safety Procedures                       |                                 |                    |                    |                  |
| Safely and properly followed lifting pr | rocedures (5 pts per student)   | 10                 |                    |                  |
| Safety glasses worn (5 pts per studen   | t)                              | 10                 |                    |                  |
| Gloves worn                             |                                 | 10                 |                    |                  |
| Completed Design                        |                                 | 10                 |                    |                  |
|   | TOTAL POINTS EARNED OU          | JT OF 100 POSSIBL  | E                  |                  |
| Judge's Comments                        |                                 |                    |                    |                  |
|   |                                 |                    |                    |                  |
|   |                                 |                    |                    |                  |
|   |                                 |                    |                    |                  |
|   |                                 |                    |                    |                  |
|   |                                 |                    |                    |                  |
| Judge's Name                            | Judge's Signature               |                    | Date               |                  |

#### **BASIC PROGRAM CONTROLLER SCORECARD**

| Name(s) | State | Team Number |
|---------|-------|-------------|

|   | Criteria          | Points<br>Possible     | Points<br>Earned |
|---|-------------------|------------------------|------------------|
| Initial Programming                     |                   |                        |                  |
| Set to current day                      |                   | 5                      |                  |
| Set to current time                     |                   | 5                      |                  |
| Clear other programs of everything pr   | eviously set up   | 5                      |                  |
| Irrigation Programming as directed      |                   |                        |                  |
| Station (zone) 1 & 3Program A           |                   | 10                     |                  |
| Station (zone) 2 & 4Program B           |                   | 10                     |                  |
| Start time: for Programs A & B          |                   | 10                     |                  |
| All zones will be watered on designate  | d days            | 5                      |                  |
| Manual Operation                        |                   |                        |                  |
| Manually activate station as directed   |                   | 10                     |                  |
| Installation of Zone Valve              |                   |                        |                  |
| Wired correctly into the controller     |                   | 20                     |                  |
| Installed in proper location per design |                   | 10                     |                  |
| Wire nuts tight                         |                   | 10                     |                  |
|   | TOTAL POINTS EARN | IED OUT OF 50 POSSIBLE |                  |
| Judge's Comments                        |                   |                        |                  |
|   |                   |                        |                  |
|   |                   |                        |                  |
| Judge's Name                            | Judge's Signature | Date                   |                  |

| IRRIGATION ZONE INSTALLATION AND REPAIR SCORECARD |       |             |
|---|-------|-------------|
| Name(s)   | State | Team Number |

| <b>Criteria</b>   | Points<br>Possible | Points<br>Earne |
|---|--------------------|-----------------|
| Properly Repair Lateral Break   |                    |                 |
| Removed damaged section of pipe   | 5                  |                 |
| Removed any burrs or rough edges and cleaned surface                    | 5                  |                 |
| Applied primer and cement properly and cleaned up excess glue           | 5                  |                 |
| Fittings to be properly set or extended                                 | 10                 |                 |
| Installation of Irrigation Zone   |                    |                 |
| Pipe cut to proper length +/- 1 inch (5 points deducted for each error) | 20                 |                 |
| Proper fitting used (5 points deducted for each error)                  | 15                 |                 |
| Heads set in proper location  | 10                 |                 |
| Heads adjusted properly (5 points per ??)                               | 15                 |                 |
| Safety Procedures   |                    |                 |
| Eye protection used (5 points per student)                              | 10                 |                 |
| Gloves used while cutting pipe and gluing                               | 5                  |                 |
| TOTAL POINTS EARNED O   | UT OF 100 POSSIBLE |                 |
| dge's Comments  |                    |                 |
|   |                    |                 |
|   |                    |                 |
|   |                    |                 |

| LINIE | TOU | MMFR | CCC | DEC | ADE |
|-------|-----|------|-----|-----|-----|
|       |     |      |     |     |     |
|       |     |      |     |     |     |

| Name(s) | State | Team Number |
|---------|-------|-------------|

| Criteria  | Point<br>Possib<br>le | Points<br>Earned |
|---|-----------------------|------------------|
| Pre-Operation Check   |                       |                  |
| Checked air filter and explained                                | 5                     |                  |
| Checked fuel level and filled on hard surface                   | 5                     |                  |
| Equipment Operation   |                       |                  |
| Installed trimmer line into Trimmer Head                        | 8                     |                  |
| Demonstrated how to start engine with Trimmer on ground         | 5                     |                  |
| Demonstrated how to trim around posts without hitting post      | 10                    |                  |
| Safety Procedures   |                       |                  |
| Ear protection used   | 7                     |                  |
| Eye protection used   | 5                     |                  |
| Avoided pedestrian traffic while trimming (Judge is pedestrian) | 5                     |                  |
| TOTAL POINTS EARNED   | OUT OF 50 POSSIBLE    |                  |

| Judge's Comments |                   |      |
|------------------|-------------------|------|
|                  |                   |      |
|                  |                   |      |
|                  |                   |      |
|                  |                   |      |
|                  |                   |      |
| Judge's Name     | Judge's Signature | Date |

#### **CHAINSAW SCORECARD**

| Name(s) | State | Team Number |
|---------|-------|-------------|

| Cr   | iteria                                   | Points<br>Possib<br>le | Point<br>Earn<br>d |
|--|--|------------------------|--------------------|
| Pre-Operation Check                            |  |                        |                    |
| Located and checked air filter                 |  | 3                      |                    |
| Adjusted chain tension with gloves on          |  | 7                      |                    |
| Checked bar oil level and explained its purpos | se                                       | 5                      |                    |
| Demonstrated fueling of tank with proper fue   | el                                       | 2                      |                    |
| Equipment Operation                            |  |                        |                    |
| Demonstrated how to start engine, choke and    | d set chain brake with saw on the ground | 8                      |                    |
| Demonstrated how to cut a log on a saw buck    | k  | 5                      |                    |
| Safety Procedures (All PPE must be on befo     | ore attempting this event)               |                        |                    |
| Ear protection used                            |  | 4                      |                    |
| Eye protection used                            |  | 4                      |                    |
| Chaps used                                     |  | 4                      |                    |
| Hard hat used                                  |  | 4                      |                    |
| Gloves used                                    |  | 4                      |                    |
| udge's Comments                                | TOTAL POINTS EARNED OUT OF               | 50 POSSIBLE            |                    |
|  |  |                        |                    |
| Judge's Name                                   | Judge's Signature                        | <br>Date               |                    |

### **Skills Event 6**

#### **EDGER SCORECARD**

| Name(s) | State | Team Number |
|---------|-------|-------------|

| Criteria   | Points<br>Possib<br>le              |          |
|--|-------------------------------------|----------|
| Pre-Operation Check  |                                     |          |
| Checked air filter   | 5                                   |          |
| Checked fuel level and filled on a hard surface            | 5                                   |          |
| Changed edger blade  | 5                                   |          |
| Equipment Operation  |                                     |          |
| Demonstrated how to start engine with edger on the ground  | 5                                   |          |
| Demonstrated how to edge a sidewalk on a section of lumber | 10                                  |          |
| Safety Procedures  |                                     |          |
| Ear protection used  | 7                                   |          |
| Eye protection used  | 7                                   |          |
| Avoided pedestrian traffic (Judge is pedestrian)           | 6                                   |          |
| TOT  | AL POINTS EARNED OUT OF 50 POSSIBLE | <u> </u> |
| Judge's Comments   |                                     |          |
|  |                                     |          |
|  |                                     |          |
| Judge's Name Judge's Signatu                               | ure Date                            |          |

#### **POWER BLOWER SCORECARD**

| Name(s) | State | Team Number |
|---------|-------|-------------|

|                                  | Criteria                       | Points<br>Possib<br>le | Points<br>Earne<br>d |
|----------------------------------|--------------------------------|------------------------|----------------------|
| Pre-Operation Check              |                                |                        |                      |
| Checked air filter and fan grill |                                | 5                      |                      |
| Checked fuel level and fill on a | hard surface                   | 5                      |                      |
| Equipment Operation              |                                |                        |                      |
| Cleaned up hazards before blo    | owing area                     | 5                      |                      |
| Demonstrated how to start er     | gine with blower on the ground | 5                      |                      |
| Blew debris away from buildir    | ng                             | 5                      |                      |
| Demonstrated proper clearing     | g of the sidewalk              | 5                      |                      |
| Safety Procedures                |                                |                        |                      |
| Ear protection used              |                                | 5                      |                      |
| Eye protection used              |                                | 5                      |                      |
| Dust mask used while blowing     | 3                              | 5                      |                      |
| Avoided pedestrian traffic (Jud  | dge is pedestrian)             | 5                      |                      |
|                                  | TOTAL POINTS EARNE             | CDOUT OF 50 POSSIBLE   |                      |
| Judge's Comments                 |                                |                        |                      |
|                                  |                                |                        |                      |
|                                  |                                |                        |                      |
|                                  |                                |                        |                      |
|                                  |                                |                        |                      |
|                                  |                                |                        |                      |
| Judge's Name                     | Judge's Signature              | <br>Date               |                      |

Date

# **Skills Event 8**

Judge's Name

#### SURVEYING INSTRUMENT SCORECARD

| Name(s)   | ate          | Team               | Number           |
|---|--------------|--------------------|------------------|
| Criteria Criteria   |              | Points<br>Possible | Points<br>Earned |
| Instrument Set Up and Knowledge   |              |                    |                  |
| Instrument set up   |              | 10                 |                  |
| Knowledge of builder's level, transit, laser                                |              | 10                 |                  |
| Determining the benchmark (Point A)   |              | 10                 |                  |
| Elevation Readings and Calculations   |              |                    |                  |
| Point B   |              | 5                  |                  |
| Point C   |              | 5                  |                  |
| Point D   |              | 5                  |                  |
| Calculated the elevation difference between point A and C                   |              | 7                  |                  |
| Calculated the elevation difference between point A and D                   |              | 7                  |                  |
| Cut and Fill Problems   |              |                    | ·                |
| Calculated the percent slope between A and D                                |              | 15                 |                  |
| How much fill or cut would be needed between point A and D to create a perc | ent slope?   | 10                 |                  |
| Explained the marks on a grade stake  |              | 5                  |                  |
| Explained the difference between an architect's and engineer's story pole   |              | 6                  |                  |
| Properly dismantled and stored equipment                                    |              | 5                  |                  |
| TOTAL POINTS EARNE  | D OUT OF 100 | POSSIBL            | E                |
| Judge's Comments  |              |                    |                  |
|   |              |                    |                  |
|   |              |                    |                  |
|   |              |                    |                  |
|   |              |                    |                  |
|   |              |                    |                  |
|   |              |                    |                  |

Judge's Signature

#### **PUSH MOWER SCORECARD**

| Name(s) | State | Team Number |
|---------|-------|-------------|
|         |       |             |

| Criteria  |                       | Points<br>Possible   | Points<br>Earned |
|---|-----------------------|----------------------|------------------|
| Pre-Start Procedures                            |                       |                      |                  |
| Checked oil level and air cleaner               |                       | 5                    |                  |
| Changed mower blade                             |                       | 9                    |                  |
| Nower guard down or bag in place                |                       | 5                    |                  |
| djusted mower height                            |                       | 5                    |                  |
| quipment Operation                              |                       |                      |                  |
| wo times outside area                           |                       | 3                    |                  |
| Nowed around trees on left side of mower        |                       | 3                    |                  |
| afety Procedures                                |                       |                      |                  |
| ar protection used                              |                       | 5                    |                  |
| ye protection used                              |                       | 5                    |                  |
| lazards were observed and cleaned up before     | e mowing              | 5                    |                  |
| avoided pedestrian traffic (Judge is pedestriar | ٦)                    | 5                    |                  |
| Judge's Comments                                | TOTAL POINTS EARNEI   | O OUT OF 50 POSSIBLI | E                |
|   |                       |                      |                  |
|   |                       |                      |                  |
| Judge's Name                                    | <br>Judge's Signature | <br>Date             |                  |

#### **ZTR MOWER SCORECARD**

| Name(s) | State | Team Number |
|---------|-------|-------------|

| Cr   | iteria                        | Points<br>Possible | Points<br>Earned |
|--|-------------------------------|--------------------|------------------|
| Pre-Start Procedures                             |                               |                    |                  |
| Checked oil level                                |                               | 5                  |                  |
| Checked hydraulic system oil level check         |                               | 2                  |                  |
| Checked air cleaner and grease fittings          |                               | 3                  |                  |
| Checked Belts, pulleys, guards                   |                               | 3                  |                  |
| Adjusting mower height                           |                               | 5                  |                  |
| Equipment Operation                              |                               |                    |                  |
| Sat on mower before starting                     |                               | 6                  |                  |
| wo times outside area                            |                               | 3                  |                  |
| Mowed around trees on left side of mower         |                               | 3                  |                  |
| Safety Procedures                                |                               |                    |                  |
| Ear protection used                              |                               | 5                  |                  |
| Eye protection used                              |                               | 5                  |                  |
| Hazards were cleaned up before mowing            |                               | 5                  |                  |
| Avoided pedestrian traffic (Judge is pedestrian) |                               | 5                  |                  |
|  | TOTAL POINTS EARNED OUT OF 50 | O POSSIBLE         |                  |
| Judge's Comments                                 |                               |                    |                  |
|  |                               |                    |                  |
|  |                               |                    |                  |
|  |                               |                    |                  |
|  |                               |                    |                  |
|  |                               |                    |                  |
|  |                               |                    |                  |
| Judge's Name                                     | Judge's Signature             | Date               |                  |

Date

### **Skills Event 11**

Judge's Name

#### INTERMEDIATE WALK-BEHIND MOWER SCORECARD

| Name(s)  | State                 | Team N             | lumber           |
|--|-----------------------|--------------------|------------------|
| Criteria   |                       | Points<br>Possible | Points<br>Earned |
| Pre-Start Procedures                             |                       |                    |                  |
| Checked oil level                                |                       | 5                  |                  |
| Checked hydraulic system oil level check         |                       | 2                  |                  |
| Checked air cleaner and grease fittings          |                       | 3                  |                  |
| Checked belts, pulleys, guards                   |                       | 3                  |                  |
| Adjusted mower height                            |                       | 5                  |                  |
| Equipment Operation                              |                       |                    |                  |
| Started mower properly                           |                       | 6                  |                  |
| Two times outside area                           |                       | 3                  |                  |
| Mowed around trees on left side of mower         |                       | 3                  |                  |
| Safety Procedures                                |                       |                    |                  |
| Eye protection used                              |                       | 5                  |                  |
| Ear protection used                              |                       | 5                  |                  |
| Cleaned up hazards before mowing                 |                       | 5                  |                  |
| Avoided pedestrian traffic (Judge is pedestrian) |                       | 5                  |                  |
| TOTA   | L POINTS EARNED OUT O | F 50 POSSIBLE      |                  |
| Judge's Comments                                 |                       | L                  |                  |
|  |                       |                    |                  |
|  |                       |                    |                  |
|  |                       |                    |                  |
|  |                       |                    |                  |
|  |                       |                    |                  |

Judge's Signature

#### SOD INSTALLATION SCORECARD

| Name(s) | State | Team Number |
|---------|-------|-------------|

| Criteria   | Points<br>Possib<br>le | Points<br>Deduc<br>ted | Points<br>Earne<br>d |
|--|------------------------|------------------------|----------------------|
| Graded area according to problem description   | 10                     |                        |                      |
| Rolled area (pre sod) according to problem description   | 5                      |                        |                      |
| Calculated and weighed proper amount of fertilizer   | 6                      |                        |                      |
| Applied fertilizer evenly (round down to the nearest pound)  | 6                      |                        |                      |
| Sodded strips adjacent to edges full width   | 5                      |                        |                      |
| Staggered seams on sod rolls   | 8                      |                        |                      |
| Knitted seams tightly  | 5                      |                        |                      |
| Made cuts accurately   | 5                      |                        |                      |
| Irrigation heads/valve box visible   | 8                      |                        |                      |
| Rolled sod after installation  | 7                      |                        |                      |
| Explained watering of new sod  | 10                     |                        |                      |
| Safety Procedures  | <u> </u>               |                        |                      |
| Eye protection used  | 10                     |                        |                      |
| Demonstrated proper lifting techniques   | 5                      |                        |                      |
| Additional safety violations: Deduct 3 points for each observed safety violation such as tools used improperly, etc. | ח                      |                        |                      |
| Completed sodding the box  | 10                     |                        |                      |
| TOTAL POINTS EARNED OUT O  | F 100 POSSIBLE         |                        |                      |
| TOTAL POINTS EARNED OUT O  | F 100 POSSIBLE         |                        |                      |
|  |                        |                        |                      |
|  |                        |                        |                      |
| Judge's Name Judge's Signature   |                        | Date                   |                      |

#### TREE PLANTING SCORECARD

| Name(s) | State | Team Number |
|---------|-------|-------------|

| Hole Dimension According to DetailWidth10Depth10Planted According to DetailRoot pruning5Handled correctly5Soil berm5Tamped properly5Mulched properly5 |  |
|---|--|
| Depth 10  Planted According to Detail  Root pruning 5 Handled correctly 5 Soil berm 5 Tamped properly 5 Mulched properly 5                            |  |
| Planted According to Detail  Root pruning 5 Handled correctly 5 Soil berm 5 Tamped properly 5 Mulched properly 5                                      |  |
| Root pruning 5 Handled correctly 5 Soil berm 5 Tamped properly 5 Mulched properly 5   |  |
| Handled correctly 5 Soil berm 5 Tamped properly 5 Mulched properly 5  |  |
| Soil berm 5 Tamped properly 5 Mulched properly 5  |  |
| Tamped properly 5 Mulched properly 5  |  |
| Mulched properly 5  |  |
|   |  |
|   |  |
| Explained watering method for new tree  |  |
| Stake and Wire tree according to specifications sheet   |  |
| Stakes at correct depth 5   |  |
| Stakes straight and plumb 5   |  |
| Stakes placed per prevailing wind 5   |  |
| Straps installed at correct height 5  |  |
| Safety Procedures   |  |
| Eye protection used 5   |  |
| Proper lifting techniques were used 5   |  |
| Proper use of gloves while staking the tree 5   |  |
| Wore hard hat while staking the tree 5  |  |
| Additional safety violations: Deduct 3 points for each observed safety violation,   |  |
| such as tools used improperly, etc.   |  |
|   |  |

#### **GRADING AND DRAINAGE SCORECARD**

| Name(s) | State | Team Number |
|---------|-------|-------------|

| Criteria  | Points<br>Possib<br>le | Points<br>Deduc<br>ted | Points<br>Earne<br>d |
|---|------------------------|------------------------|----------------------|
| Resemblance to Scale Drawing of Sand Mound  |                        |                        |                      |
| Top of mound at proper elevation  | 10                     |                        |                      |
| Top of mound at proper location   | 10                     |                        |                      |
| Elevation Points (3 different elevation points will be checked by judge)  |                        |                        |                      |
| Point A   | 10                     |                        |                      |
| Point B   | 10                     |                        |                      |
| Point C   | 10                     |                        |                      |
| Location and Elevation of Catch Basin   |                        |                        |                      |
| Location  | 10                     |                        |                      |
| Elevation   | 10                     |                        |                      |
| Will the finished product drain?  | 15                     |                        |                      |
| Safety Procedures   |                        |                        |                      |
| Eye protection used   | 10                     |                        |                      |
| Proper use of gloves  | 5                      |                        |                      |
| Additional Safety Violations: Deduct 3 points for each observed safety violation, such as tools used improperly, etc. |                        |                        |                      |
| TOTAL POINTS EARNED OUT OF 100  | POSSIBLE               |                        |                      |

#### Note: Measurements are in 1/10 scale.

| Judge's Comments |                   |      |
|------------------|-------------------|------|
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|                  |                   |      |
|                  |                   |      |
|                  |                   |      |
|                  |                   |      |
| Judge's Name     | Judge's Signature | Date |

#### **PAVER INSTALLATION SCORECARD**

| Name(s)   |                   | State          | Team               | Number           |
|---|-------------------|----------------|--------------------|------------------|
| Criteria  |                   |                | Points<br>Possible | Points<br>Earned |
| Procedure   |                   |                |                    |                  |
| Set string line 90 degrees with the base line     |                   |                | 10                 |                  |
| Installed running bond paver pad correctly        |                   |                | 15                 |                  |
| Installed a basket weave pattern pad correctly    |                   |                | 15                 |                  |
| Explain to the Judge the Steps Involved in La     | ying Pavers       |                |                    |                  |
| Using paint or stakes laid out the area to be ins | talled            |                | 3                  |                  |
| Determined finish grade and set grade stakes      |                   |                | 5                  |                  |
| Excavated a minimum of 6" for a solid base        |                   |                | 3                  |                  |
| Created a 2 percent minimum slope                 |                   |                | 2                  |                  |
| Added base, compact no more than 4" at a time     | е                 |                | 3                  |                  |
| Base to be 6" beyond finished detentions          |                   |                | 5                  |                  |
| Installed edging                                  |                   |                | 3                  |                  |
| Installed sand and screed                         |                   |                | 3                  |                  |
| Laid pavers                                       |                   |                | 2                  |                  |
| Cut pavers and use of ear protection              |                   |                | 5                  |                  |
| Sand swept and compacted                          |                   |                | 3                  |                  |
| Safety Procedure                                  |                   |                |                    |                  |
| Eye protection used                               |                   |                | 5                  |                  |
| Gloves used                                       |                   |                | 5                  |                  |
| Used proper lifting techniques                    |                   |                | 5                  |                  |
| Finished paver installation                       |                   |                | 8                  |                  |
|   | TOTAL POINTS EAR  | NED OUT OF 100 | POSSIBLE           | 3                |
| Judge's Comments                                  |                   |                |                    |                  |
|   |                   |                |                    |                  |
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|   |                   |                |                    |                  |
|   |                   |                |                    |                  |
| Judge's Name                                      | Judge's Signature |                | Date               |                  |

#### SKID STEER LOADER SCORECARD

| Name(s) | State | Team Number |
|---------|-------|-------------|

| Criteria  |  | Points<br>Possible | Points<br>Deducted | Points<br>Earned |
|---|--|--------------------|--------------------|------------------|
| Pre-Start Procedures                            |  |                    |                    |                  |
| Checked oil level and hydraulic system oil leve | l  | 4                  |                    |                  |
| Checked tire pressure                           |  | 3                  |                    |                  |
| Checked fuel check                              |  | 4                  |                    |                  |
| Checked air filter check                        |  | 3                  |                    |                  |
| Checked grease fittings                         |  | 4                  |                    |                  |
| Safe Operation of Equipment                     |  |                    |                    |                  |
| Proper mounting of loader using seatbelt and    | harness  | 4                  |                    |                  |
| Proper exiting of loader                        |  | 4                  |                    |                  |
| Attaching front implements                      |  | 4                  |                    |                  |
| Safety Procedures                               |  |                    |                    |                  |
| Safety glasses used                             |  | 5                  |                    |                  |
| Ear protection used                             |  | 5                  |                    |                  |
| Seat belt was used                              |  | 5                  |                    |                  |
| Discussed observing people and hazards          |  | 5                  |                    |                  |
| Note: Deduct 10 points for any safety           | y violation with a maximum of 20 points<br>deducted. |                    |                    |                  |
|   | TOTAL POINTS EARNED OUT OF 50                        | POSSIBLE           | 2                  |                  |
| Judge's Comments                                |  |                    |                    |                  |
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|   |  |                    |                    |                  |
| Judge's Name                                    | Judge's Signature                                    |                    | Date               |                  |

Date

### **Skills Event 17**

#### **PRUNING SCORECARD**

Judge's Name

| Name(s)   | State              | Team               | Number           |
|---|--------------------|--------------------|------------------|
| Criteria  | Points<br>Possible | Points<br>Deducted | Points<br>Earned |
| ree Structure   |                    |                    |                  |
| dentified trunk, leader and lateral branches                                  | 15                 |                    |                  |
| Pruning Tools and Methods   | ·                  |                    |                  |
| Properly used hand pruners on plants  | 10                 |                    |                  |
| Properly used loppers on plants   | 10                 |                    |                  |
| Demonstrated the 3-point cut method and provided rationale on a design        | 10                 |                    |                  |
| ree Pruning   |                    |                    |                  |
| dentified 3 appropriate cuts and proper tool to use                           | 15                 |                    |                  |
| hrub Pruning  |                    |                    |                  |
| Demonstrated how to start and handle gas-powered hedge shears                 | 10                 |                    |                  |
| afety Procedures  | ·                  |                    |                  |
| ye protection used  | 10                 |                    |                  |
| Ear protection used   | 10                 |                    |                  |
| Gloves used   | 5                  |                    |                  |
| Chaps used while shearing   | 5                  |                    |                  |
| Note: Deduct 10 points for any safety violation — maximum of 20 points deduct | ted.               |                    |                  |
| TOTAL POINTS EARNED OUT   | OF 100 POSSIBL     | E                  |                  |
| Judge's Comments  |                    |                    |                  |
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|   |                    |                    |                  |

Judge's Signature

### **Skills Event 18**

#### FERTILIZER APPLICATION SCORECARD

| Name(s)                                   |                          | State           | Team               | Number           |
|---|--------------------------|-----------------|--------------------|------------------|
| CRITERIA                                  |                          |                 | Points<br>Possible | Points<br>Earned |
| Checked equipment spinner for proper      | operation before filling |                 | 5                  |                  |
| Adjusted spreader setting as instructed   |                          |                 | 2                  |                  |
| Measured the proper amount of fertilize   | er +/- 5 percent         |                 | 13                 |                  |
| Filled spreader off of turf area          |                          |                 | 5                  |                  |
| No fertilizer spillage and spreader was c | losed prior to filling   |                 | 5                  |                  |
| Opened spreader at appropriate time       |                          |                 | 5                  |                  |
| Spread fertilizer evenly                  |                          |                 | 5                  |                  |
| Safety Procedures                         |                          |                 |                    |                  |
| Eye protection used                       |                          |                 | 5                  |                  |
| Gloves used                               |                          |                 | 5                  |                  |
|   | TOTAL PO                 | INTS EARNED OUT | OF 50 POSSIBL      | E                |
| Judge's Comments                          |                          |                 |                    |                  |
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|   |                          |                 |                    |                  |
| Judge's Name                              | Judge's Signature        |                 | Date               |                  |

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### **Skills Event 19**

#### SERVICE RECEIPT SCORECARD

| Name(s)                                 |                                | State         | Team               | Number           |
|---|--------------------------------|---------------|--------------------|------------------|
| Criteria                                |                                |               | Points<br>Possible | Points<br>Earned |
| Recorded crew time properly per scen    | ario provided                  |               | 10                 |                  |
| Checked off all services rendered       |                                |               | 5                  |                  |
| Recorded actual pre-emergent herbic     | de and fertilizer calculations |               | 5                  |                  |
| Recorded actual mulch calculation (in   | cubic yards)                   |               | 5                  |                  |
| Recorded actual flats installed         |                                |               | 5                  |                  |
| Recorded comments about irrigation l    | nead                           |               | 5                  |                  |
| Explained annual care to client         |                                |               | 10                 |                  |
| Crew leader signed off on service recei | pt                             |               | 5                  |                  |
| Judge's Comments                        | TOTAL POIN                     | IS EARNED OUT | OF 50 POSSIBL      | E                |
|   |                                |               |                    |                  |
| Judge's Name                            | <br>Judge's Signature          |               | Date               |                  |

#### WALL INSTALLATION SCORECARD

| Name(s) | State | Team Number |
|---------|-------|-------------|
|         |       |             |
|         |       |             |

| Criteria Criteria   | Points<br>Possible | Points<br>Deducted | Points<br>Earned |
|---|--------------------|--------------------|------------------|
| Procedure   |                    |                    |                  |
| Set string line 90 degrees with the base line   | 10                 |                    |                  |
| nstalled wall proper length   | 10                 |                    |                  |
| nstalled wall proper height   | 10                 |                    |                  |
| Set cap stone properly  | 10                 |                    |                  |
| Staggered seams on wall (face of wall is flat)  | 10                 |                    |                  |
| Jsed proper cuts in wall  | 5                  |                    |                  |
| Explained to the Judge the Steps Involved in Laying Pavers  |                    |                    |                  |
| Excavated a minimum of 6" for a solid base (in keeping with mid-west specifications)                                  | 5                  |                    |                  |
| Added base, compacted no more than 4" at a time   | 5                  |                    |                  |
| Base to be 6" beyond finished wall  | 5                  |                    |                  |
| Cut wall stone and used ear protection  | 5                  |                    |                  |
| Jsed glue/mortar as needed (simulated while building the wall)  | 5                  |                    |                  |
| Safety Procedure  |                    |                    |                  |
| Eye protection used   | 5                  |                    |                  |
| Gloves used   | 5                  |                    |                  |
| Note: Deduct 5 points for any safety violation — maximum of 20 points deducted, i.e. improper lifting, tool handling. |                    |                    |                  |
| Finished the wall   | 10                 |                    |                  |
| TOTAL POINTS EARNED OUT OF 100  | POSSIBLI           | E                  |                  |
| Justine de Commente   |                    |                    |                  |
| Judge's Comments  |                    |                    |                  |
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|   |                    |                    |                  |
| Judge's Name Judge's Signature  |                    | Date               |                  |

Date

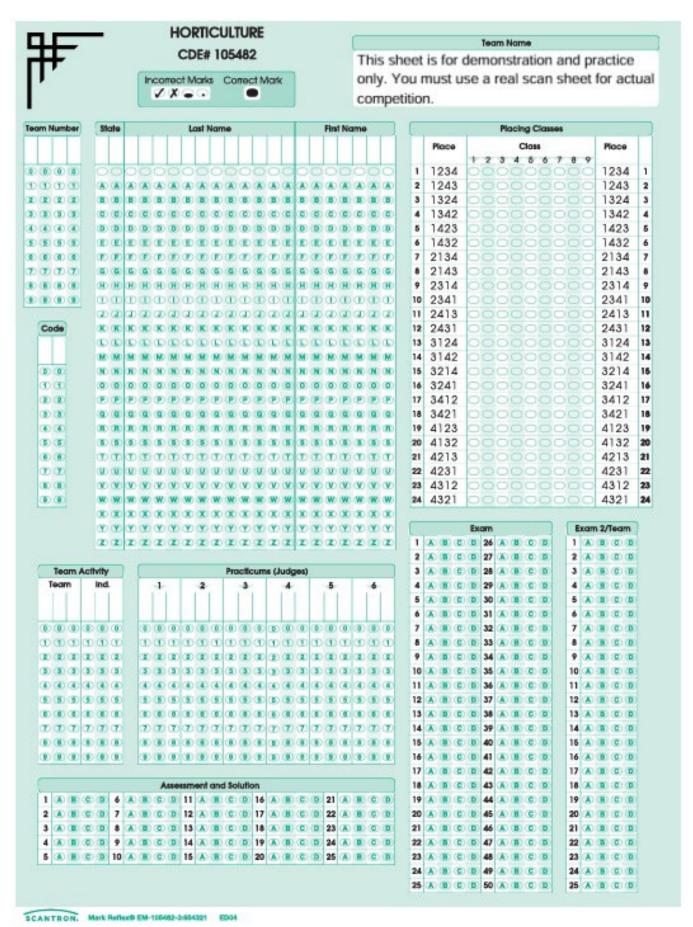
### **Skills Event 21**

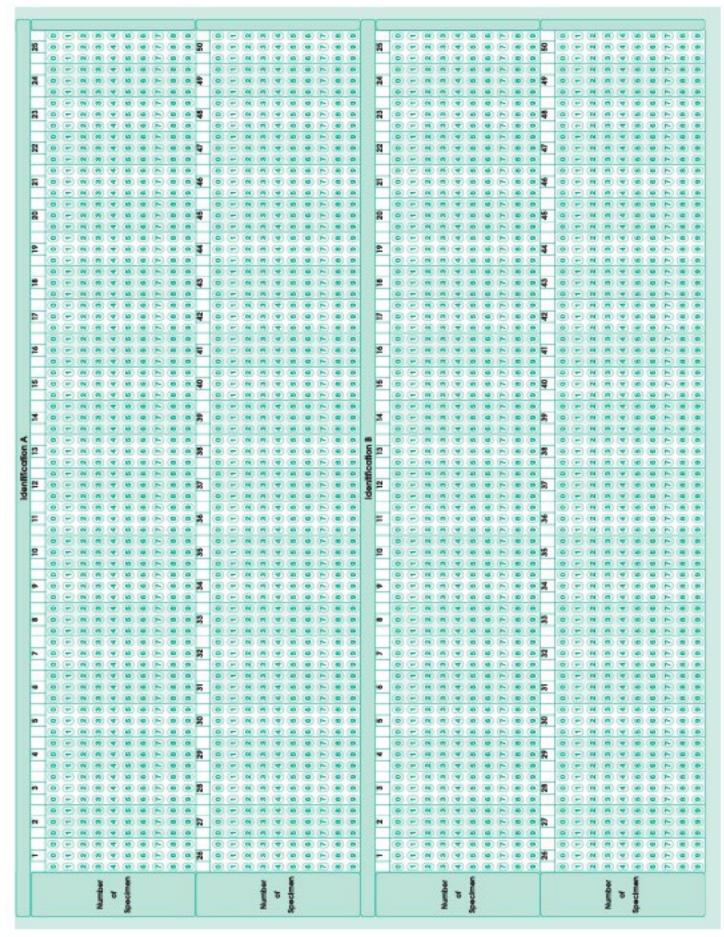
Judge's Name

#### SHRUB/PERENNIAL INSTALLATION SCORECARD

| <br>Name(s)  |                    |                    | <br>Team Number  |  |  |
|--|--------------------|--------------------|------------------|--|--|
| Name(s)  | State              |                    | leam Number      |  |  |
| Criteria   | Points<br>Possible | Points<br>Deducted | Points<br>Earned |  |  |
| Placement of Plant Material  |                    |                    |                  |  |  |
| Plants placed within 2" +/- of correct placement (5 points each)       | 15                 |                    |                  |  |  |
| acing of Plant Material  |                    |                    |                  |  |  |
| Plants faced properly to a maximum of 15 points (5 points each)        | 15                 |                    |                  |  |  |
| landling of Plant Material   |                    |                    |                  |  |  |
| Plant handled properly to a maximum of 15 points (5 points each)       | 15                 |                    |                  |  |  |
| Correct viewpoint  | 5                  |                    |                  |  |  |
| xplained proper plant care (watering- 5 points and pruning - 5 points) | 10                 |                    |                  |  |  |
| Aulch applied properly   | 10                 |                    |                  |  |  |
| afety Procedures and Proper Lifting of Plants                          |                    |                    |                  |  |  |
| afely and properly followed lifting procedures                         | 10                 |                    |                  |  |  |
| afety glasses and gloves used  | 10                 |                    |                  |  |  |
| inished planting per design  | 10                 |                    |                  |  |  |
| TOTAL POINTS EARNED OU  Judge's Comments                               | UT OF 100 POSSIB   | LE                 |                  |  |  |
|  |                    |                    |                  |  |  |
|  |                    |                    |                  |  |  |

Judge's Signature





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