



To view additional contest details, see the contest clarification sheet on the Michigan FFA Website

NURSERY/ LANDSCAPE

Career Development Event

PURPOSE

The purpose of the Nursery/Landscape CDE is to recognize students who show proficiency in Nursery and Landscape Horticulture. Proficiency in Nursery and Landscape Horticulture is all inclusive of the practices and operations within the nursery and landscape industries. This contest is closely patterned after the National FFA Nursery/Landscape examination and Michigan Nursery Landscape Association (CGIP) Certified Green Industry Professional Core examination and identification of materials. **Students scoring 70% or higher in this CDE will be awarded the MNLA CGIP Core Certificate free of charge from the MNLA. No additional paperwork is required of the student or AFNR Teacher to receive this industry award certificate.**

OBJECTIVES

Plant materials: to evaluate an ability to identify nursery and landscape plant materials commonly used in the United States and hardy to Michigan's climate.

Plant disorders: to evaluate an ability to identify plant disorders related to insects, diseases, nutrition, physiological stress and mechanical or chemical injury.

Common turf, landscape & ornamental weeds: to evaluate an ability to identify weed species common to Michigan golf course turf, lawn, gardens and ornamental beds needed for success in the industry.

Cultural practices: to demonstrate knowledge of the skills involved in and principles of propagation, growth requirements, growing techniques,

harvesting, marketing and maintenance of nursery plants and landscape turf.

Design and construction: to demonstrate knowledge of the principles and techniques of landscape design, construction, and estimation.

Supplies and equipment: to demonstrate the ability to identify, select, use and maintain appropriate supplies and equipment for nursery and landscape operations.

Safety: to demonstrate knowledge of safety practices in nursery and landscape operations.

EDUCATIONAL STANDARDS

For educational standards, please refer to the Nursery/Landscape Handbook located at <https://www.ffa.org/participate/cdes/nursery-landscape/>

EQUIPMENT

Students are to **bring their own:**

- Two sharpened No. 2 pencils.
- A clean, free of notes, clipboard
- Electronic calculator
 - Calculators for this event should be battery operated, non-programmable and silent.
 - Calculators may only have these functions: addition, subtraction, multiplication, division, equals, percent, square root, +/- key and one memory register. No other calculators are allowed to be used in this event.
- An Architect's Scale that has 1/8 scale on it

PROCEDURE

Contest Procedures

Contest will be comprised of four sections and take approximately 3 hours and 45 minutes to complete.

Contest sections are as follows:

Section 1. Plant Identification (75)	150 Points
Section 2. Equipment & Materials ID (25)	50 points

Section 3. Exam General Knowledge – 75 questions Scenarios – 10 questions	170 points
Section 4. Problem Solving Practicums (40)	200 points
Total Individual Points	570 points

An individual score of 399 points or higher earns the MNLA Certified Green Industry Professional Core Industry Certificate.

Team scores will be the sum of the scores of the top 3 team members. Up to Five (5) students per team can compete. The total of the possible team points is 1,710 points (570 x 3)

Section 1. Plant Identification

60 minutes | 150 points

Seventy-five specimens from the "Nursery/Landscape Identification" list will be displayed for contestants to identify by scientific and common names. Specimens will come from a list of 150 deciduous and evergreen trees and shrubs, herbaceous perennials, annuals and aquatic plants listed alphabetically by scientific name (see [Nursery/Landscape Plant list](#)). Specimen pictures will be given to each participant to identify. At least two pictures of each plant specimen designated by a number will be used. Pictures may include herbarium samples, twigs, leaves or other representative plant parts. There will be a study guide of all the plants on the Michigan FFA NL CDE contest page for downloading and studying.

When contestants have identified the plant specimen, the respective number from the plant list is to be marked on the back of the scantron sheet. Each contestant will be provided with a copy of the plant list at the contest. Two points will be awarded for each specimen correctly identified.

60 minutes is allowed for the completion of this section.

Section 2. Equipment and Materials Identification

30 minutes | 50 points

Up to Twenty-Five (25) pieces of equipment/materials will be displayed for contestants to identify from a list of equipment/materials listed on the Michigan FFA Nursery Landscape CDE page. When contestants have identified the equipment/materials, the respective number from the list is to be marked on

the back of the scantron sheet. Each contestant will be provided with a copy of the equipment/materials at the contest. Two points will be awarded for each item correctly identified.

30 minutes is allowed for the completion of this section.

Section 3. Exam

60 minutes | 170 points

This exam consists of 2 parts: General Knowledge and Scenarios.

General Knowledge (75 questions). Seventy-five objective multiple-choice questions will be prepared on topics reflecting subject areas in the contest objectives based on the MNLA CGIP Core Manual. This contest section will evaluate the contestant's knowledge and understanding of basic horticultural principles in producing, marketing, using and maintaining nursery plants and turf. Questions will be divided out equally among sections in a question databank. The CGIP Core Manual is available for member discount purchase price from www.MNLA.org.

Scenarios (10 questions). Each contestant will be given two scenarios where they will have to answer 5 multiple choice questions. Scenarios on even years will be based on Lawncare and Nursery Operations, on odd years, scenarios will be based on landscape maintenance and Installation/Construction.

Two points will be awarded for each correct answer. Answers will be recorded on a scantron sheet on the front of the scantron bottom right.

Section 4. Problem Solving Practicums

75 minutes | 200 points

This contest section consists of problems and identification of problems related to the nursery and landscape industry. **Five areas** will be covered each year as described below. Stations will be set up using multiple choice responses for each station from each of the five areas. All contestants will complete the same problem sets. Five (5) points will be awarded for each correct answer. Answers will be recorded on a scantron sheet on the front page in the bottom left section.

Landscape Design and Estimation. This practicum section is designed to evaluate contestant knowledge of and ability in the following:

A. Evaluating a landscape design

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

Sample practice practicums are provided on the Michigan FFA NL CDE page.

Contestants must provide a scale capable of measuring to 1/8 inch and may use, if desired, a battery-powered electronic calculator. A landscape drawing and scratch paper will be provided to the contestants. There will be multiple choice objective-type questions about the landscape plan, and each correct answer has a value of 5 points. The questions may include such areas as determining how accent was provided in the public area, the form and size specified for a certain plant, the cost of fencing, the number of patio pavers required, the area of sod to be installed, the volume of mulch required, and the labor cost to install a ground cover bed.

Measuring Nursery Stock. Each contestant will measure the market size (height, spread or caliper, as appropriate) of nursery plants. Contestants will apply the American Standard for Nursery Stock (see reference list) for BR and B&B evergreen and deciduous trees and shrubs. A caliper and measure rule will be provided with each plant. The contestant will record the actual measurement determined and how the measurement was made for each plant.

Pruning Nursery Stock. Each contestant will answer multiple choice objective type questions about pruning with each correct answer having a value of five points. The questions may include such areas as selecting primary and secondary cuts, pruning methods and techniques needed to provide major improvements in plant health and form. Each contestant may be provided a nursery tree or shrub on which numbered labels will mark possible places for pruning cuts. No plant will actually be pruned. Each question has a value of 5 points.

Pests and Disorders Identification (10 questions). The contestant will be required to identify plant pests and disorders from a list of 30 possible problems provided. The problems may be due to an insect, disease, and/or physiological problem. A sample of the affected plant or a picture of the disorder will be presented to the contestant. Students will respond using multiple choice answers. Each question has a value of 5 points. This will be located at the end of the general knowledge exam.

Turf, Garden and Landscape Weed Identification (10 questions). The contestant will be required to identify Michigan problem weeds from a list

of 20 possible weeds provided. A sample of the weed plant or a picture of it will be presented to the contestant. Students will respond using multiple choice answers. Each question has a value of 5 points. This will be located at the end of the general knowledge exam.

SCORES

The **individual** score will be calculated as follows:

Possible Individual Points	
Plant Identification	150 points
Equipment & Materials Identification	50 points
General Knowledge Exam	170 points
Problem Solving Practicums	200 points
Total Individual Points	570 points

An individual score of **399 points or higher** earns the MNLA Certified Green Industry Professional Core Industry Certificate

The **team** score will be calculated as follows:

Possible Team Points	
Team Member 1 score	570 points
Team Member 2 score	570 points
Team Member 3 score	570 points
Total Team Points	1710 points

Team scores will be the sum of the scores of the top 3 team members. Up to Five (5) students per team can compete.

Determining Awards

Gold and Silver awards will be determined by the Michigan FFA Association Executive Secretary.

ADDITIONAL MATERIALS

A Plant Identification list, Equipment List, and a Plant Pests and Disorders list are provided for review.

A list of references for use as a guide for training a team is provided on the Michigan FFA Nursery/Landscape CDE page.

The CGIP Core Manual will be the basis for this contest.

Certified Green Industry Professional Core Manual – 2013 – MNLA – mnla.org

Order at Member Price: <https://mnlateam.wufoo.com/forms/x88m9gn0jd8t9w/>

Additional References:

American Standard for Nursery Stock. 2004. American Association of Nurserymen, Inc., 230 Southern Bldg., Washington, DC 20005.

<https://www.americanhort.org/page/stanards>

Math For Horticulture – Available at: <https://files.eric.ed.gov/fulltext/ED369958.pdf>

Turfgrass Mathematics –

<https://sutton.agrilife.org/files/2011/08/turfgrassmathematics.pdf>

Equipment ID & Equipment Safety:

A.M.Leonard, Inc., 665 Spiker Rd., Piqua, OH 45356 513-773-2697 or

<https://www.amleo.com/>

Forestry Suppliers – <https://www.forestry-suppliers.com/c/?page=1>

Stihl USA - How to Guides & Videos – <https://www.stihlusa.com/>

Plant ID, Weeds, Pests & Disorders ID Online Additional References Michigan Specific:

<https://www.canr.msu.edu/pestid/>

<https://www.canr.msu.edu/turf/weeds>

Additional National FFA Nursery/Landscape CDE References:

<https://ffa.app.box.com/s/y1pow03ykhfo42ah783weu122x57uk3w/folder/50715005194>

National Association of Landscape Professionals: [Landscape Training Manuals - Set of 3](#)

Email bookstore@landscapeprofessionals.org to set up member pricing if you would like to purchase these manuals.