

# Forestry

The purpose of the Forestry CDE is to stimulate student interest and to promote the forest industry as a career choice. It also provides recognition for those who have demonstrated skills and competencies as a result of forestry instruction in the agriculture education classroom.

## Event Rules

1. The team will consist of four individuals, with the lowest score being the drop score.
2. The team score is comprised of the combined scores of each individual and team activity in which all team members will participate.
3. Participants must come to the event prepared to work in adverse weather conditions. The event will be conducted regardless of weather. In the event of inclement weather, students will need to have rain gear. Each participant must also have closed toed shoes and long pants for this event.
4. Students must provide their own #2 pencils.
5. Students will need to provide their own clipboards, clean and free of notes or distractions.
6. Participants will be assigned to groups and should follow the group leader through their rotations.
7. All participants will be given an identification number by which they will be designated through the event.
8. Any participant in possession of an electronic device during the event is subject to disqualification.

## Event Format

Each year students will compete in a general knowledge exam, tree identification and tree measurement.

Additionally, students will compete in two practicums from the following possibilities : forest management evaluation (timber stand improvement), equipment identification, map interpretation, compass, chainsaw parts identification and tree/forest disorders. The two **rotating** practicums are listed below so that every three years the practicums will repeat. Teams will not know the team practicum until arriving at the contest, however, it can consist of: tree measurement or one of the two rotating practicums. ***Beginning in 2019, possible team activities will include those listed above and/or GPS, GIS or Map Making.***

While the National FFA Guidebook serves as an excellent in depth resource for this event preparation, please be advised that the tree identification list and tree/forest disorders that are used in the SC FFA CDE are specific for our State Event and are not representative of the National list. The list of possible trees may be found at the end of this handbook.

## **Event Location**

In all even number years, the event will be centrally located at Harbison State Forest in Columbia. All other years the event will rotate between other state forests. The complete list of rotating locations and rotating practicums is:

2018: Harbison State Forest (Tree/Forest disorders; Compass)

2019: Sandhills State Forest (Forest Management Evaluation, Equipment ID)

2020: Harbison State Forest (Map Interpretation, Chainsaw Parts ID)

2021: Manchester State Forest (Tree/Forest Disorders, Compass)

2022: Harbison State Forest (Forest Management Evaluation, Equipment ID)

2023: Poe Creek State Forest (Map Interpretation, Chainsaw Parts ID)

## **General Knowledge Exam (100 points)**

- a. Fifty multiple choice questions will be selected from MYCAERT sections FOR:C, FOR:D, FOR:E, FOR:F, FOR:G, FOR:H and FOR:I

## **Tree Identification (90 points)**

15 live specimens, pressed samples, fresh leaf samples and/or standing trees, from the tree identification list at the end of this packet, will be displayed for participants to identify by common name. A number will designate each specimen and will correspond to the answer sheet and/or scansheet.

## **Tree Measurement (100 points)**

Each participant will measure 10 pre-numbered trees on a plot for board foot volume. The participant must record the DBH (Diameter Breast Height) to the nearest one inch. Students are to round down in measurements. Volume tables will be provided at the event.

***Total Height will be estimated instead of Merchantable Height.***

Participants will also compete in two practicums from the following list:

Forest Management Evaluation

Equipment Identification

Map Interpretation

Compass

Chainsaw Part Identification and Troubleshooting/Safety

Tree/Forest Disorders

*\*\*Up to 30 minutes will be allocated for each practicum.*

## **Forest Management Evaluation-Timber Stand Improvement (TSI) and/or Thinning Practicum**

The trees selected for this portion of the event may be all the same species or a mixture of species.

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An area will be selected and identified by ribbons, paint and/or markers. It will contain 10 marked trees within a timber stand. All trees in the selected area will be considered as a forest management site and the participants will score each marked tree using one of the following options:

Harvest-utilize the tree

Leave-the tree should remain in stand for good reason

Deaden- Undesirable tree not merchantable or beneficial to wildlife, should be deadened or cut down and left in woods.

The participants will be given a situation concerning the forest management objectives of the stand selected. This information will be given to participants at the site before they start. Information that will be needed to help participants in their decisions will include:

Markets available

Wildlife considerations

Present condition of stand

Management Plan

### **Equipment Identification**

Ten Pieces of equipment will be displayed for participants to identify by technical names. Each piece of equipment will be presented as: actual equipment, photo of equipment or written description.

### **Map Interpretation**

Participants will answer 10 questions using a furnished United States Geological Survey topographic Map. The participant should know legal description, recognize topographic symbols and understand the meaning of map symbols and understand meaning of map symbols, size and location of 40 acres or more of a parcel.

Examples can include but are not limited to:

What is the legal description of the boxed area?

What is the item located at this point?

In what section is the city of Marshall located?

What is the elevation at this point?

Legal descriptions will be written or described according to the public land survey system.

Example: SE  $\frac{1}{4}$  of NW  $\frac{1}{4}$  of Section 3, T3N, R1E

### **Compass Practicum**

The participant will use a hand compass and pacing to the nearest full foot to simulate the determination of the property lines on a tract of timber. The participant

will start at any point and record the compass reading and distance to the next point. Azimuth readings shall be recorded. Participants will record data.

Partial credit may be given with a deduction for each two degrees or two feet the participant is off the correct answer.

### **Chainsaw Part Identification, Troubleshooting and Safety Practicum**

This practicum will consist of one or more of the parts below. Parts may utilize photos, videos, demonstration, actual parts, written situations and/or problems.

Chainsaw Parts Identification: Each participant will identify parts of a chainsaw. (does not include internal engine components)

Troubleshooting: The participant will identify chainsaw parts or troubles.

Safety: The participant will identify safety hazards, unsafe practices and/or proper safety equipment.

### **Tree/Forest Disorders Practicum**

Symptoms of at least 10, but no more than 20 disorders from the Tree Disorders List will be displayed for participants to identify by common name. The symptoms will be presented in one or more of the following forms:

- Actual sample
- Picture/Slide
- Written Description
- Written Case History

A number will designate each set of symptoms representing each disorder.

**Refer to the resources found in the National FFA  
Handbook for Event preparation**

**Tree Identification List**

American Beech	Pecan
Willow Oak	Pignut Hickory
American Elm	Pond Pine
Winged Elm	Post Oak
American Holly	Red Buckeye
Yellow Hawthorne	Red Maple
American Hornbeam	Red Mulberry
Yellow Poplar	River Birch
Baldcypress	Sassafras
Black Cherry	Shagbark Hickory
Black Tupelo	Shortleaf Pine
Blackjack Oak	Slash Pine
Boxelder	Sourwood
Cabbage Palmetto	Southern Bayberry/Wax Myrtle
Eastern Cottonwood	Southern Magnolia
Eastern Hemlock	Southern Red Oak
Eastern Redbud	Swamp Chestnut Oak
Eastern Redcedar	Sweetbay
Flowering Dogwood	Sweetgum
Honeylocust	Sycamore
Leyland Cypress	Turkey Oak
Live Oak-Evergreen	Virginia Pine
Loblolly Pine	Water Oak
Longleaf Pine	White Pine
Mockernut Hickory	

### Tree/Forest Disorders

Aphid	Little Leaf Disease
Black Turpentine Beetle	Mechanical Damage
Cicada	Mistletoe
Damping Off	Needlecast
Dogwood Anthracnose	Nematode
Drought Damage	Pine Sawyer (woodborer)
Fire Damage	Rust
Fusiform Rust	Sawfly
Galls	Southern Pine Beetle
Girdling Roots	Sunscald
Gypsy Moth	Tent Caterpillar
Heart/Butt Rot	Twig Girdler
Hemlock Wooly Adelgid	Twig Pruner
Ips Beetle	Wetwood/Smile flux
Landscape Equipment Damage	Wildlife Damage
Laurel Wilt	Wind Throw
Leafminer	Woolly Pine Scale
Lightning Damage	