

FORESTRY

A. OBJECTIVES - The objectives of the 4-H/FFA Ag. Forestry event for youth are:

1. To develop leadership skills, to work as a team, and to practice good study habits.
2. To acquire information about forest ecosystems and forestry skills used in forest management and the utilization of forest products.
3. To appreciate and manage wisely Indiana's forest resources.

B. AREA Event - Most areas will need to hold an area contest to determine which teams qualify to attend the state event. Contestants should bring clipboards and pencils. Participants may be given a list of trees and write the appropriate number on the answer sheet to identify the leaves (at the discretion of the Area Event Coordinator and event committee). Scantron may be used to score.

Contestants should bring clipboards and pencils. Participants will be given a list of trees and write the appropriate number on the answer sheet to identify the leaves. Some problems may require simple math calculations, however, no calculators will be allowed.

Junior Event - identify 20 leaves and 10 seeds. The junior written quiz will have 20 questions. Quiz questions will be taken from the Question Bank found at:

www.four-h.purdue.edu/natural_resources/career.html (click on Forestry).

The questions may be rephrased (the content will not be altered) and the answers may be re-arranged from what is listed in the Question Bank.

Senior Event - identify 30 leaves, 10 seeds, and 5 woods. The senior written quiz will consist of 50 questions. Quiz questions will be taken from the Question Bank found at:

www.four-h.purdue.edu/natural_resources/career.html (click on Forestry).

The questions may be rephrased (the content will not be altered) and the answers may be re-arranged from what is listed in the Question Bank.

Materials - Area event specimen kits are maintained by Area 4-H and FFA Event Coordinators. They should be used for the Area CDE only. Area kits contain leaf, seed, and wood specimens. Master copies of answer sheets, questions, and keys for area events will be distributed to Area 4-H Coordinators. Event coordinators are asked to do their own photo-copying. Practice specimens for the event should be prepared by local 4-H clubs and FFA chapters. See directions for preparing a kit at the website: www.four-h.purdue.edu/natural_resources/career.html (Click on Forestry).

Scoring

Junior Event	(Area)	Suggested Time (minutes)	Points
	identifications: 30, 10 points each	15 to 20	300
	written quiz: 20 questions, 7 points each	15	140
TOTAL POSSIBLE POINTS			440

Senior Event	(Area)	Suggested Time (minutes)	Points
	identifications, 45, 10 points each	25 to 30	450
	written quiz: 50 questions, 7 points each	30	350
TOTAL POSSIBLE POINTS			800

Note: In the event of a tie for high score: Ties will be broken by asking additional questions. Five "tie breaker" questions may be provided for this purpose.

C. STATE Event

We run this CDE with a staggered start so that every team sees the same specimens (senior or junior). They start times follow the schedule shown below.

Even Years	Odd Years
9 AM Start: Teams in Extension Areas 1-6	9 AM Start: Teams in Extension Areas 7-11.
10:30* Start: Teams in Extension Areas 7-11.	10:30* Start: Teams in Extension Areas 1-6

*the second group will begin as soon as the first group (9 AM start) is finished.

Contestants should bring clipboards and pencils. Participants will be given a list of trees and write the appropriate number on the answer sheet to identify the leaves. Some problems may require simple math calculations, however, no calculators will be allowed.

Junior Event - identify 30 leaves and 10 seeds. The junior written quiz will have 20 questions. Quiz questions will be taken from the Question Bank found at:

www.four-h.purdue.edu/natural_resources/career.html (click on Forestry).

The questions may be rephrased (the content will not be altered) and the answers may be re-arranged from what is listed in the Question Bank.

Senior Event - identify 35 leaves, 10 seeds, and 5 woods. The senior written quiz will have 50 questions. Quiz questions will be taken from the Question Bank found at:

www.four-h.purdue.edu/natural_resources/career.html (click on Forestry).

The questions may be rephrased (the content will not be altered) and the answers may be re-arranged from what is listed in the Question Bank.

Materials - The state event is held at Purdue University. Practice specimens for the event should be prepared by local 4-H clubs and FFA chapters. See directions for preparing a kit at the website: www.four-h.purdue.edu/natural_resources/career.html (Click on Forestry).

Scoring

Junior Event	(State)	Suggested Time (minutes)	Points
	identifications: 40, 10 points each	20	400
	written quiz: 20 questions, 7 points each	15	140
TOTAL POSSIBLE POINTS			540

Senior Event	(State)	Suggested Time (minutes)	Points
	identifications, 50, 10 points each	25	500
	written quiz: 50 questions, 7 points each	30	350
TOTAL POSSIBLE POINTS			850

Notes:

- ID: Contestants will choose from 5 possible answers.
- Both the Identification and Quiz portions of this CDE will be electronically scored using Scantron.
- Ties will be broken by asking additional questions. Five "tie breaker" questions may be provided for this purpose.

D. List of Possible Specimens

Leaves	
1. American basswood (<i>Tilia americana</i>)	12. Black willow (<i>Salix nigra</i>)
2. American beech (<i>Fagus grandifolia</i>)	13. Boxelder (<i>Acer negundo</i>)
3. American elm (<i>Ulmus americana</i>)	14. Bur oak (<i>Quercus macrocarpa</i>)
4. American hornbeam/ Blue beech (<i>Carpinus caroliniana</i>)	15. Butternut (<i>Juglans cinerea</i>)
5. Bitternut hickory (<i>Carya cordiformis</i>)	16. Chestnut oak (<i>Quercus prinus</i>)
6. Black cherry (<i>Prunus serotina</i>)	17. Chinquapin oak (<i>Quercus muhlenbergii</i>)
7. Black gum/Black tupelo (<i>Nyssa sylvatica</i>)	18. Eastern cottonwood (<i>Populus deltoides</i>)
8. Black locust (<i>Robinia pseudoacacia</i>)	19. Eastern redbud (<i>Cercis canadensis</i>)
9. Black maple (<i>Acer nigrum</i>)	20. Eastern redcedar (<i>Juniperus virginiana</i>)
10. Black oak (<i>Quercus velutina</i>)	21. Eastern white pine (<i>Pinus strobus</i>)
	22. Flowering dogwood (<i>Cornus florida</i>)

11. Black walnut (<u>Juglans nigra</u>)	23. Hackberry (<u>Celtis occidentalis</u>)
Leaves, continued	
24. Honeylocust (<u>Gleditsia triacanthos</u>) 25. Ironwood /Eastern hophornbeam (<u>Ostrya virginiana</u>) 26. Jack pine (<u>Pinus banksiana</u>) 27. Kentucky coffeetree (<u>Gymnocladus dioica</u>) 28. Largetooth/Bigtooth aspen (<u>Populus grandidentata</u>) 29. Mockernut hickory (<u>Carya tomentosa</u>) 30. Northern catalpa (<u>Catalpa speciosa</u>) 31. Northern red oak (<u>Quercus rubra</u>) 32. Ohio buckeye (<u>Aesculus glabra</u>) 33. Osage-orange (<u>Maclura pomifera</u>) 34. Persimmon (<u>Diospyros virginiana</u>) 35. Pignut hickory (<u>Carya glabra</u>) 36. Pin oak (<u>Quercus palustris</u>) 37. Quaking aspen (<u>Populus tremuloides</u>) 38. Red maple (<u>Acer rubrum</u>) 39. Red mulberry (<u>Morus rubra</u>)	40. Red pine (<u>Pinus resinosa</u>) 41. River birch (<u>Betula nigra</u>) 42. Sassafras (<u>Sassafras albidum</u>) 43. Scotch pine (<u>Pinus sylvestris</u>) 44. Shagbark hickory (<u>Carya ovata</u>) 45. Shingle oak (<u>Quercus imbricaria</u>) 46. Silver maple (<u>Acer saccharinum</u>) 47. Slippery elm/Red elm (<u>Ulmus rubra</u>) 48. Sugar maple (<u>Acer saccharum</u>) 49. Swamp white oak (<u>Quercus bicolor</u>) 50. Sweetgum (<u>Liquidambar styraciflua</u>) 51. Sycamore (<u>Platanus occidentalis</u>) 52. Tuliptree/Yellow-poplar (<u>Liriodendron tulipifera</u>) 53. Virginia pine (<u>Pinus virginiana</u>) 54. White ash (<u>Fraxinus americana</u>) 55. White oak (<u>Quercus alba</u>)

SEEDS 1. American basswood (<u>Tilia americana</u>) 2. American beech (<u>Fagus grandifolia</u>) 3. American hornbeam/ Blue beech (<u>Carpinus caroliniana</u>) 4. Black oak (<u>Quercus velutina</u>) 5. Black walnut (<u>Juglans nigra</u>) 6. Bur oak (<u>Quercus macrocarpa</u>) 7. Butternut (<u>Juglans cinerea</u>) 8. Eastern redcedar (<u>Juniperus virginiana</u>) 9. Eastern white pine (<u>Pinus strobus</u>) 10. Honeylocust (<u>Gleditsia triacanthos</u>) 11. Eastern hophornbeam/ Ironwood (<u>Ostrya virginiana</u>) 12. Jack pine (<u>Pinus banksiana</u>) 13. Kentucky coffeetree (<u>Gymnocladus dioica</u>) 14. Northern red oak (<u>Quercus rubra</u>) 15. Ohio buckeye (<u>Aesculus glabra</u>) 16. Persimmon (<u>Diospyros virginiana</u>) 17. Red maple (<u>Acer rubrum</u>) 18. Shagbark hickory (<u>Carya ovata</u>) 19. Silver maple (<u>Acer saccharinum</u>) 20. Sugar maple (<u>Acer saccharum</u>) 21. Sweetgum (<u>Liquidambar styraciflua</u>) 22. Sycamore (<u>Platanus occidentalis</u>) 23. Tuliptree/Yellow-poplar (<u>Liriodendron tulipifera</u>) 24. Virginia pine (<u>Pinus virginiana</u>) 25. White oak (<u>Quercus alba</u>)	WOODS 1. American basswood (<u>Tilia americana</u>) 2. American beech (<u>Fagus grandifolia</u>) 3. American elm (<u>Ulmus americana</u>) 4. Black cherry (<u>Prunus serotina</u>) 5. Black walnut (<u>Juglans nigra</u>) 6. Butternut (<u>Juglans cinerea</u>) 7. Eastern redcedar (<u>Juniperus virginiana</u>) 8. Northern red oak (<u>Quercus rubra</u>) 9. Sassafras (<u>Sassafras albidum</u>) 10. Shagbark hickory (<u>Carya ovata</u>) 11. Slippery elm/Red elm (<u>Ulmus rubra</u>) 12. Sycamore (<u>Platanus occidentalis</u>) 13. Sugar maple (<u>Acer saccharum</u>) 14. Tuliptree/Yellow-poplar (<u>Liriodendron tulipifera</u>) 15. White ash (<u>Fraxinus americana</u>) 16. White oak (<u>Quercus alba</u>) Note: Some of the 56 tree species used in the identification contest are not described in "Fifty trees of Indiana", therefore supplementary tree identification books are recommended.
---	---

E. Resources

Additional references are available on-line at:

- Articles: <http://www.fnr.purdue.edu/extension/index.shtml> See **Forests and Trees and Wood Products sections.**
- Articles: Purdue Extension [publications](https://mdc.itap.purdue.edu/), <https://mdc.itap.purdue.edu/>, Search For: **forestry, wood**
- On-line ID: Iowa State University Extension, Identification of Common Trees of Iowa: <http://www.extension.iastate.edu/pages/tree/>, see **Index of Iowa Trees**