*Chapter Guide to State FFA Activities*

*Proposed Revisions 2016*

**Agronomy CDE**

**Purpose**

The purpose of the Agronomy Career Development Event is to create interest and promote understanding in agronomy by providing opportunities for recognition through the demonstration of skills and proficiencies.

Objectives for this event are:

* Demonstration of basic knowledge of agronomic sciences;
* Exploration of career opportunities, skills, and proficiencies in the industry;
* Understanding sustainable agriculture and environmental stewardship through

the use of Integrated Pest Management and Best Management Practices.

**Sponsor**

The sponsor of this event is Bayer Crop Science of North Carolina.

**State Event Superintendent**

The superintendent for this event is Mr. Gerald Barlowe, State Agricultural Education Leader, Department of Agriculture and Human Sciences, NCSU, Campus Box 7654, Raleigh, NC 27695-7654. Phone: 919.515.4206 Fax: 919.513.3201 Email: Gerald\_barlowe@ncsu.edu

**Eligibility and General Guidelines**

This event is open to all FFA chapters and FFA members in good standing. FFA Members may not participate in a Career Development Event that leads to a state level event after July 1, following their high school/early college graduation. Members winning a previous state event in this area or that have participated in a previous national event in the area are ineligible.

Each chapter may send one team to compete at the state event. **Teams shall consist of three or four members. Four scores will count towards the team total (A three-member team will earn a zero for the 4th score).**No alternates are allowed in state events. Any alternate found participating in a state event will result in total team disqualification.

FFA members in good standing may also participate as individuals in this event. A chapter may have up to two members participate as individuals as long as the chapter does not have a team participating in the event. Their scores will only count toward individual recognition, and will not be tallied as a team score.

The use or possession of cellular phones, Personal Digital Assistants (PDA’s) or any other mobile electronic communication device is prohibited during any state-level career development event. Any violation of this rule by any team member will result in total team disqualification.

FFA members participating in career development events that require the use of calculators may only use non programmable/graphing calculators that do not have the ability to communicate with other calculators. Calculators will be screened prior to the start of a CDE for acceptability. Students caught using data stored on a calculator or communicating with other calculators will result in a total team disqualification for the event.

Any member found cheating in any state-level career development event will result in total team disqualification for that event.

At the North Carolina FFA State Convention, participation in more than one FFA CDE event is permitted as long as events are not being held concurrently and no special previsions are required to facilitate participation with the exception that parliamentary procedure and public speaking and parliamentary procedure and Creed speaking which are held concurrently will allow dual participation and special provisions for flighting.

**Dress Code**

Participants are required to follow the North Carolina FFA Career Development Event Dress Code. A ten percent reduction in the total team score will be taken if a participant violates the dress code. Participants are allowed to wear long pants, an appropriate shirt with a collar or an appropriate high school or FFA t-shirt or they may wear official dress as described in the FFA manual.

**Procedures for Administering the Event**

Part 1: General Knowledge Exam - 100 points

Twenty-five objective multiple choice questions will be given to each participant. Questions will come from the references listed at the conclusion of this document.

Part 2: Annual Practicum – 250 Points

Students will identify 25 weed and/or crop plants and/or weed and/or crop seeds. Live plant specimen will only be used and may be in any stage following emergence. The weed and/or crop seeds can be shown as treated and/or untreated seeds. Refer to the North Carolina Plant and Seed List.

Part 3: Insect Identification – 100 Points

Ten samples will be identified according to insect name. The insect specimens can be shown as either live and/or mounted form. Refer to the insect identification list.

Part 4: Equipment and Machinery Identification - 100 Points  
Students will identify 10 items from the machinery list. Samples may appear as actual equipment, scale models, toys or pictures.

Part 5: Usability (Crop Quality) - 100 Points

Students will be given two classes of crop samples: one will be forage and the other a vegetable crop. Each class will consist of four samples of the same crop. Participants will rank each class with a Hormel card (50 points per sample).

**Scoring**

|  |  |
| --- | --- |
| Maximum Score (Individual)/(Team) | 650/2600 |
| 1. General Knowledge Exam | 100 |
| 1. Annual Practicum | 250 |
| 1. Insect Identification | 100 |
| 1. Equipment and Machinery Identification | 100 |
| 1. Usability (Crop Quality) | 100 |

**Procedure for Determining the State Event Winner When Scores are Tied**

In the event a tie score exists, apply the following methods in sequential order until the tie is broken.

1. Compare the total team score for the annual practicum and the higher scoring team is the winner.

2. Compare the total team score for the general knowledge exam and the higher scoring team is the winner.

3. Compare the total team score for the Insect Identification and the higher scoring team is the winner.

4. If these methods fail to break the tie, co-winners will be declared and a run-off event will be held to determine which team will represent North Carolina at the National FFA Convention. The run-off event will follow the same rules as the state event.

**Procedure for Determining the State Event Winner When Scores are Tied for Individual Participants**

Ties in scores between individuals will be broken by comparing the scores of the portion/section of the event that carries the highest point value. The order of comparison would be Annual Practicum, General Knowledge Exam, Insect Identification, Equipment and Machinery Identification and Usability.

**State Awards**

The following awards will be presented annually at the state FFA convention provided sponsorship is available:

State Winning Team

*Cash Award, first place team plaque, team pins for member*

Second Place Team

*Second place team plaque, team pins for member*

Third Place Team

*Third place team plaque, team pins for member*

**National Career Development Event Participation**

State winning teams advancing to the national career development event will be automatically registered for the national event. It is the responsibility of the FFA Chapter Advisor to complete all necessary national certification and waiver forms and return them to the state FFA Coordinator by the assigned due date. State winning CDE teams that choose not to participate at the national level should contact the state office by Sept. 1 prior to National Convention. Teams that fail to inform the state office prior to Sept. 1 will be ineligible to participate in that same CDE for the next year (chapters may appeal to the State FFA Board of Directors). Teams that do not compete at National Convention will be required to pay back the cash travel award.

State winning CDE teams that choose not to participate at the national level should contact the state office by Sept. 1 prior to national convention. Teams that fail to inform the state office prior to Sept. 1 will be ineligible to participate in that same CDE for the next year (chapters may appeal to the State FFA Board of Directors). Teams that do not compete at the National Convention will be required to pay back the $500 travel award.

**Bibliography**

Tests used in previous state events are available online at www.ncffa.org to instructors who wish to use them as instructional aids.

The following is a list of the general references for the material covered by the National FFA Agronomy Career Development Event.

1. Ohio Agronomy Guide – Ohio Extension

2. University of Arizona, College of Agriculture- Plant *Growth and Development, Plant Production Management, Weeds, Insects*

3. *Corn and Soybean Field Guide*-Perdue Extension

4. Nasco References

5. University of Illinois, College of Agriculture – *Crop Plant Booklet, Weed Plant Booklet, Field Scouting Manual*

*6. NCSU Forage Crop Evaluation*

*7. Missouri Vegetable Crop Evaluation*

**FOR THE PURPOSE OF THE WRITTEN EXAM ONLY** the North Carolina Agricultural Production I/II Outline and Test Bank Questions (Agronomy and Land Management Sections) will be used.

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**NORTH CAROLINA FFA ASSOCIATION**

**AGRONOMY CDE: PLANT AND SEED LIST (250 Points)**

**(*Weed and/or Crop: Plant and/or Seed may be used*)**

|  |  |  |  |
| --- | --- | --- | --- |
| **WEED PLANT** | **WEED SEED** | **CROP PLANT** | **CROP SEED** |
| \_\_\_\_ Barnyard Grass  \_\_\_\_ Black Nightshade  \_\_\_\_ Broadleaf Plantain  \_\_\_\_ Buckhorn Plantain  \_\_\_\_ Bull Thistle  \_\_\_\_ Canada Thistle  \_\_\_\_ Cheat  \_\_\_\_ Cocklebur  \_\_\_\_ Common Chickweed  \_\_\_\_ Common Lambsquarter  \_\_\_\_ Common Mallow  \_\_\_\_ Common Milkweed  \_\_\_\_ Common Mullein  \_\_\_\_ Common Purslane  \_\_\_\_ Common Ragweed  \_\_\_\_ Common Sunflower  \_\_\_\_ Crabgrass  \_\_\_\_ Crown Vetch  \_\_\_\_ Curly Dock  \_\_\_\_ Dandelion  \_\_\_\_ Dog Fennel  \_\_\_\_ Field Bindweed  \_\_\_\_ Field Dodder  \_\_\_\_ Field Pennycress  \_\_\_\_ *Field Sandbur*  \_\_\_\_ Foxtail  \_\_\_\_ Ground Cherry  \_\_\_\_ Horsenettle  \_\_\_\_ *Horseweed (Marestail)*  \_\_\_\_ Johnsongrass  \_\_\_\_ Jimsonweed  \_\_\_\_ *Kochia*  \_\_\_\_ *Kudzu*  \_\_\_\_ Morning Glory  \_\_\_\_ Nutsedge (Yellow)  \_\_\_\_ *Primrose*  \_\_\_\_ Prostate Knotweed  \_\_\_\_ *Prostate Spurge*  \_\_\_\_ Puncturevine  \_\_\_\_ Redroot Pigweed  \_\_\_\_ Shepardspurse  \_\_\_\_ *Sicklepod*  \_\_\_\_ Smartweed  \_\_\_\_ Sowthistle  \_\_\_\_ Wild Carrot  \_\_\_\_ Wild Mustard  \_\_\_\_ Wild Oats  \_\_\_\_ Wild Onion/Garlic | \_\_\_\_ Barnyard Grass  \_\_\_\_ Black Nightshade  \_\_\_\_ Broadleaf Plantain  \_\_\_\_ Bull Thistle  \_\_\_\_ Buckhorn Plantain  \_\_\_\_ Canada Thistle  \_\_\_\_ Cheat  \_\_\_\_ Cocklebur  \_\_\_\_ Common Chickweed  \_\_\_\_ Common Lambsquarter  \_\_\_\_ Common Mallow  \_\_\_\_ Common Milkweed  \_\_\_\_ Common Mullein  \_\_\_\_ Common Purslane  \_\_\_\_ Common Ragweed  \_\_\_\_ Common Sunflower  \_\_\_\_ Crabgrass  \_\_\_\_ Crown Vetch  \_\_\_\_ Curly Dock  \_\_\_\_ Dandelion  \_\_\_\_ Field Bindweed  \_\_\_\_ Field Dodder  \_\_\_\_ Field Pennycress  \_\_\_\_ *Field Sandbur*  \_\_\_\_ Foxtail  \_\_\_\_ Ground Cherry  \_\_\_\_ Horsenettle  \_\_\_\_ Johnsongrass  \_\_\_\_ Jimsonweed  \_\_\_\_ Leafy Spurge  \_\_\_\_ *Kochia*  \_\_\_\_ Morning Glory  \_\_\_\_ Nutsedge (Yellow)  \_\_\_\_ Prostate Knotweed  \_\_\_\_ Puncturevine  \_\_\_\_ Redroot Pigweed  \_\_\_\_ Shepardspurse  \_\_\_\_ *Sicklepod*  \_\_\_\_ Smartweed  \_\_\_\_ Sowthistle  \_\_\_\_ Tansy Mustard  \_\_\_\_ Wild Carrot  \_\_\_\_ Wild Mustard  \_\_\_\_ Wild Onion/Garlic | **\_\_\_\_** Alfalfa  \_\_\_\_ Barley  \_\_\_\_ *Bean (Dry)*  \_\_\_\_ Bermuda grass  \_\_\_\_ Broccoli  \_\_\_\_ Cabbage  \_\_\_\_ Canola  \_\_\_\_ Cantaloupe  \_\_\_\_ Cauliflower  \_\_\_\_ Chili Pepper  \_\_\_\_ *Corn*  \_\_\_\_ Cotton  \_\_\_\_ Cucumber  \_\_\_\_ Kentucky Bluegrass  \_\_\_\_ Lettuce  \_\_\_\_ Oats  \_\_\_\_ Onion  \_\_\_\_ Orchard grass  \_\_\_\_ Peanuts  \_\_\_\_ Peas  \_\_\_\_ *Potato*  \_\_\_\_ Rape  \_\_\_\_ Red Clover  \_\_\_\_ Rice  \_\_\_\_ Rye (Grain)  \_\_\_\_ *Ryegrass*  \_\_\_\_ Safflower  \_\_\_\_ Sorghum  \_\_\_\_ Soybeans  \_\_\_\_ *Spinach*  \_\_\_\_ Squash  \_\_\_\_ *Strawberry*  \_\_\_\_ Sudangrass  \_\_\_\_ Sugar Beets  \_\_\_\_ Sunflower  \_\_\_\_ *Sweet Potato*  \_\_\_\_ Sweet Clover  \_\_\_\_ Tall Fescue  \_\_\_\_ Timothy  \_\_\_\_ Tobacco  \_\_\_\_ Tomato  \_\_\_\_ Watermelon  \_\_\_\_ *Wheat*  \_\_\_\_ White Clover | **\_\_\_\_** Alfalfa  \_\_\_\_ Barley  \_\_\_\_ Bermuda grass  \_\_\_\_ Canola  \_\_\_\_ Cantaloupe  \_\_\_\_ Chili Pepper  \_\_\_\_ Cotton  \_\_\_\_ Cucumber  \_\_\_\_ Dent Corn  \_\_\_\_ Durum Wheat  \_\_\_\_ *Flax*  \_\_\_\_ Kentucky Bluegrass  \_\_\_\_ Lettuce  \_\_\_\_ Lima Bean  \_\_\_\_ Oats  \_\_\_\_ Onion  \_\_\_\_ Orchard grass  \_\_\_\_ Peanuts  \_\_\_\_ Peas  \_\_\_\_ Pinto Bean  \_\_\_\_ Pop Corn  \_\_\_\_ Red Bean  \_\_\_\_ Red Wheat  \_\_\_\_ Rice  \_\_\_\_ Rye (Grain)  \_\_\_\_ Safflower  \_\_\_\_ Sorghum  \_\_\_\_ Soybeans  \_\_\_\_ *Spinach*  \_\_\_\_ Squash  \_\_\_\_ Sudangrass  \_\_\_\_ Sugar Beets  \_\_\_\_ Sunflower  \_\_\_\_ Sweet Clover  \_\_\_\_ Sweet Corn  \_\_\_\_ Tall Fescue  \_\_\_\_ Timothy  \_\_\_\_ Tobacco  \_\_\_\_ Tomato  \_\_\_\_ Watermelon  \_\_\_\_ White Clover  \_\_\_\_ White Wheat |

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**NORTH CAROLINA FFA ASSOCIATION**

**AGRONOMY CDE: INSECT IDENTIFICATION LIST (100 Points)**

**\_\_\_\_\_\_ Alfalfa Weevil Larva**

**\_\_\_\_\_\_ Alfalfa Weevil**

**\_\_\_\_\_\_ Aphid**

**\_\_\_\_\_\_ Armyworm Larva**

**\_\_\_\_\_\_ Assassin Bug**

**\_\_\_\_\_\_ Bean Leaf Beetle**

**\_\_\_\_\_\_ Blister Beetle (Larvae)**

**\_\_\_\_\_\_ Blister Beetle**

**\_\_\_\_\_\_ Chinch Bug**

**\_\_\_\_\_\_ Colorado Potato Beetle**

**\_\_\_\_\_\_ Colorado Potato Larva**

**\_\_\_\_\_\_ Corn Earworm Larva**

**\_\_\_\_\_\_ Corn Rootworm Larva**

**\_\_\_\_\_\_ Cutworm Larva**

**\_\_\_\_\_\_ European Corn Borer Larva**

**\_\_\_\_\_\_ Flea Beetle**

**\_\_\_\_\_\_ Grain Weevil**

**\_\_\_\_\_\_ Grasshopper**

**\_\_\_\_\_\_ Green Lacewing Nymph**

**\_\_\_\_\_\_ Green Lacewing**

**\_\_\_\_\_\_ Honeybee**

**\_\_\_\_\_\_ Japanese Beetle**

**\_\_\_\_\_\_ June Bug**

**\_\_\_\_\_\_ Lady Bird Beetle Larva**

**\_\_\_\_\_\_ Lady Bird Beetle**

**\_\_\_\_\_\_ Leaf Skeletonizer Larva**

**\_\_\_\_\_\_ Leafhopper**

**\_\_\_\_\_\_ Lygus**

**\_\_\_\_\_\_ Mexican Bean Beetle**

**\_\_\_\_\_\_ Pink Bollworm Larva**

**\_\_\_\_\_\_ Spidermite**

**\_\_\_\_\_\_ Spittlebug**

**\_\_\_\_\_\_ Spotted Cucumber/Southern Corn Rootworm Beetle**

**\_\_\_\_\_\_ Stinkbug**

**\_\_\_\_\_\_ Tobacco/Tomato Hornworm Larva**

**\_\_\_\_\_\_ Tobacco/Tomato Hormworm Moth**

**\_\_\_\_\_\_ Whitefly**

**\_\_\_\_\_\_ White Grub**

**\_\_\_\_\_\_ Wireworm/Click Beetle**

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**NORTH CAROLINA FFA ASSOCIATION**

**AGRONOMY CDE: USABILITY (CROP QUALITY) (100 Points)**

|  |  |
| --- | --- |
| **Forage Crops (Hay)** | **Vegetable Crops** |
| **Alfalfa**  **Coastal Bermuda Hay**  **Orchard grass**  **Red Clover**  **Sweet Clover**  **Tall Fescue**  **Timothy**  **White Clover**  There will be 1 sample section taken from 4 different bales of the same type of hay. Each sample will be laid out to evaluate. | **Broccoli** (1 Head per container)  **Cabbage** (1 Head per container)  **Cantaloupe** (1 per container)  **Cauliflower** (1 Head per container)  **Chili Pepper** (4-6 per container)  **Cucumber** (4-6 per container)  **Onion** (4-6 per container)  **Potato** (4-6 per container)  **Strawberry (**4-6 per container**)**  **Sweet Potato** (4-6 per container)  **Squash** (4-6 per container)  **Tomato** (4-6 per container)  **Watermelon** (1 per container) |

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**North Carolina FFA Association**

**Agronomy Career Development Event**

**Equipment and Machinery Identification**

Equipment and Machinery items will be numbered 1‑10. Contestants should write the appropriate number in the space beside the name of the item. Each correct answer if valued as ten points.

**Machinery List**

|  |  |
| --- | --- |
| **Air Compressor/Hose** | **Hearing Protection** |
| **Backpack Sprayer** | **Hitch Pin** |
| **Bale Wagon** | **Hoe** |
| **Baler** | **In-Line Ripper** |
| **Bean Harvester Head (for Combine)** | **Liquid Manure Fertilizer Spreader** |
| **Bed Mulcher** | **Module Builder** |
| **Bed Shaper** | **Moldboard Plow** |
| **Center Pivot** | **Pea Harvester** |
| **Chemigation Unit** | **Peanut Digger** |
| **Combine** | **Plow (soil chisel)** |
| **Conveyor/Elevator** | **Potato Harvester** |
| **Corn Harvester Head (for Combine)** | **Press Wheel** |
| **Cotton Picker/Stripper** | **Pressure Gauge** |
| **Crop Cultivator** | **Pressure Regulator** |
| **Crop Disc Cultivator** | **PTO Shaft** |
| **Crop Planter** | **Rotary Hoe** |
| **Disc Mower** | **Seed Plate** |
| **Drill Planter** | **Soil Probe** |
| **Fertilizer Broadcaster** | **Soil Thermometer** |
| **Forage Harvester** | **Sweep Net** |
| **Gauge Wheel** | **Tensiometer** |
| **Grain Auger** | **Tractor** |
| **Grain Moisture Meter** | **Vegetable Transplanter** |
| **Grain Storage Bin** | **Yield Monitor** |
| **Hay Rake** |  |

**Judging event placing card (form 2)**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ School Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Contestant Number: \_\_\_\_\_\_\_\_\_\_\_

**Class Name: Forage Class Class Name: Vegetable Class**

|  |  |
| --- | --- |
| **PLACINGS** | **CHECK PLACING** |
| **1-2-3-4** | **A** |
| **1-2-4-3** | **B** |
| **1-3-2-4** | **C** |
| **1-3-4-2** | **D** |
| **1-4-2-3** | **E** |
| **1-4-3-2** | **F** |
| **2-1-3-4** | **G** |
| **2-1-4-3** | **H** |
| **2-3-1-4** | **I** |
| **2-3-4-1** | **J** |
| **2-4-1-3** | **K** |
| **2-4-3-1** | **L** |
| **3-1-2-4** | **M** |
| **3-1-4-2** | **N** |
| **3-2-1-4** | **O** |
| **3-2-4-1** | **P** |
| **3-4-1-2** | **Q** |
| **3-4-2-1** | **R** |
| **4-1-2-3** | **S** |
| **4-1-3-2** | **T** |
| **4-2-1-3** | **U** |
| **4-2-3-1** | **V** |
| **4-3-1-2** | **W** |
| **4-3-2-1** | **X** |

|  |  |
| --- | --- |
| **PLACINGS** | **CHECK PLACING** |
| **1-2-3-4** | **A** |
| **1-2-4-3** | **B** |
| **1-3-2-4** | **C** |
| **1-3-4-2** | **D** |
| **1-4-2-3** | **E** |
| **1-4-3-2** | **F** |
| **2-1-3-4** | **G** |
| **2-1-4-3** | **H** |
| **2-3-1-4** | **I** |
| **2-3-4-1** | **J** |
| **2-4-1-3** | **K** |
| **2-4-3-1** | **L** |
| **3-1-2-4** | **M** |
| **3-1-4-2** | **N** |
| **3-2-1-4** | **O** |
| **3-2-4-1** | **P** |
| **3-4-1-2** | **Q** |
| **3-4-2-1** | **R** |
| **4-1-2-3** | **S** |
| **4-1-3-2** | **T** |
| **4-2-1-3** | **U** |
| **4-2-3-1** | **V** |
| **4-3-1-2** | **W** |
| **4-3-2-1** | **X** |

**Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Total Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**