

AGRONOMY

3-4 Member Team

IMPORTANT NOTE

Please thoroughly read the General CDE Rules Section at the beginning of this handbook for complete rules and procedures that are relevant to State FFA Career Development Events.

I. PURPOSE

Oklahoma FFA Agronomy CDE promotes an interest and understanding of agronomy through the demonstration of skills and proficiencies.

II. OBJECTIVES

By participating in this contest, students will:

- A. Demonstrate basic knowledge of agronomic principles and practices
- B. Learn to identify agronomically important crops and weeds and measure grain quality using standard grain grading practices
- C. Practice applying science and mathematics to solve real-world agricultural problems
- D. Explore career opportunities, skills, and proficiencies in the agronomic industry
- E. Experience challenges and find success.

III. EVENT RULES

These rules and regulations are official for the 2025 State FFA Interscholastic Career Development Event in Agronomy. They may be supplemented as necessary after consultation with Agricultural Education officials. Changes will be communicated via the cde website.

- A. Coordinators of district and invitational contests throughout the state are encouraged to follow these rules for their contests, but they are not required to do so. The sponsoring institutions are fully responsible for contest set-up, operation and supervision; interpretation of rules; scoring, tabulation, and awards; and announcing the location and time of district and invitational contests. The OSU Department of Plant and Soil Sciences will prepare contest materials for purchase by district contest sponsors only if requested by February 15, 2025. An order form is included in these rules as **Appendix A**.
- B. All participants will be assigned a contestant number. This number must be written on all answer sheets.
- C. Participants will be divided into three groups. Each participant must stay with their assigned group until they are told otherwise by the contest supervisor.
- E. An identification list is found in Appendix B. Detailed instructions for grain grading are found in Appendix C.
- F. The coaches will have the privilege of checking all materials used in the contest. A coach shall not object to anything being included in the contest because it was not secured for study.
- G. The contestants will not communicate with anyone except contest officials while the contest is in progress. This includes verbal communication as well as telephone calls and text messages.
- H. Legible writing and proper spelling are required and will be considered in scoring. Points will be deducted for misspelling according to the grain grading rules.
- I. In view of fairness to all schools, no team will be permitted to practice in the OSU

crops teaching laboratory, except during supervised training workshops conducted prior to the contest.

- J. Please feel free to contact Beatrix.haggard@okstate.edu to set up a review session for your team. The review session can either be held on zoom or in person at the OSU campus. There is no charge for a review session.
- K. The semester prior to the contest, teams are free to walk through greenhouse 110 in the teaching greenhouses and study crops and weeds that are actively growing. Plants will be actively growing starting in January, but they will mostly be immature seedlings until after the end of February into late March. The greenhouse is closed on weekends unless you an appointment.

IV. FORMAT

- A. The event consists of three sections:
 - 1. Identification (30 Minutes)
 - 2. Grain Grading (30 Minutes)
 - 3. Agronomic Knowledge Exam (30 Minutes)

V. EVENT FORMAT

- A. Team Make-Up
 - 1. A team will consist of three or four members.
 - a. The top three scores will be counted for the team total.
 - b. If an entire team is not entered, one or two individuals from a school may compete for individual honors.
- B. Equipment
 - 1. A contestant may take the following into the contest:
 - 2. Magnifying lens, clipboard, pencil, calculator, watch, and grain grading papers (The grain grading papers can be placed in a ½ or 1 inch binder or a small presentation folder.) These binders cannot be accessed during any other part of the contest. If they are referenced, then the student will be disqualified from the contest.
 - 3. If a student is caught using a cell phone or smart watch during the contest, the student will be disqualified from the contest.
 - 4. An ID list, answer sheets, and givens will be provided by the contest superintendent.
- C. Event Schedule
 - Each contestant shall complete the event in the time allotted.
- D. Identification of Plant Materials (300 Points)
 - 1. The contestant will identify a total of 60 plants, seeds, damages, insects, diseases, disorders, and machinery in 30 minutes. It is possible that the same species may occur more than one time in the contest. Each sample will be given a value of 5 points, for a total of 300 points. Students will be provided an official sheet of numbered ID specimens to help fill in the corresponding number with the sample on their scan sheet.
 - 2. Plants will generally be shown in the reproductive stage (flower bud through seed maturity). Samples may be presented as preserved mounts, dried bundles or specimens, fresh cuttings, live specimens, photographs, or replicas. A magnifying lens is suggested to aid in identification.
 - 3. A numbered list of the names of all samples on the official identification list

arranged in alphabetical order (Appendix B) will be included with the official answer form used by the contestant. The contestant will identify each sample, select the appropriate number from the answer list, and record that number in a scan sheet provided. Both pages of the form must be turned in when the contestant is finished with the identification section.

E. Grain Grading (300 points)

1. Six samples of grain will be graded according to the Federal Grain Inspection Standards. This section is worth 300 points, with each sample worth 50 points; 30 points for recording the correct grade designation plus 20 points for recording the factors determining the grade (see a grading description in Appendix C.)
2. The samples will be from the following classes:
 - a. Wheat Classes: Hard Red Winter Wheat, Hard White Wheat, Durum Wheat, Mixed Wheat, Soft Red Winter Wheat
 - b. Sorghum Classes: Sorghum, Tannin Sorghum, White Sorghum, Mixed Sorghum,
 - c. Corn Classes: Yellow Corn, White Corn, Mixed Corn
 - d. Soybean Classes: Yellow Soybeans, Mixed Soybeans
3. Samples will consist of grain placed in sealed bags with the grain grading factors separated out with the corresponding percentages. Each bag will include a base sample of grain to be graded, the necessary visual factors, up to 6 visual factors (weed seed, damaged grain, other grains). The base sample must be evaluated to determine the market class of the crop. Given factors are those which cannot be determined by the student, and for which values must be provided. These include test weight per bushel, odors, percent of material sieved from the sample, certain sample grade factors, and all factors determining the special grades. The visual factors are small quantities of materials which may affect the commercial quality of the grain. These are shown in the sealed bag with the percentage of the sample they comprise. Students must determine the effect of each factor on the grade of the sample. Other market classes that might cause the grain to be graded as class “mixed” may also be shown as visual factors. The contestant must consider all the evidence accompanying each sample, and record the market grade designation, together with the factors which determine the designation on the scoring sheet as shown in the explanation and examples given in Appendix C.
4. Each contestant will be provided a summary sheet containing the grade requirement table and special grades, market classes, and grading factors as shown in Appendix C. (These summary sheets are abbreviated and may differ from FGIS. For the Oklahoma event, the guidelines for grade and class determination on the provided summary sheets will apply.) Contestants will also be provided with a worksheet if they decide to not bring their own. Contestants still must answer the grain grading answers on the provided answer sheet. Handouts are in Appendix C.

F. Agronomic Knowledge Exam (300 points)

1. The general agronomic examination will be comprised of 50 questions; multiple choice questions will be utilized for this year’s event. Calculations will still be worked out, but the answers will be provided in a multiple-choice format. All answer choices will be filled out on the official scan sheet.
2. Questions will be of general agronomic nature based on crops produced in

Oklahoma, including but not limited to winter wheat, winter canola, alfalfa, cotton, peanut, soybean, and sorghum. Topics will include but are not limited to crop biology and adaptation, planting, nutrient and water requirements, common pests, harvesting and storage.

- 3. Samples questions for study purposes are available in Appendix D.

VI. SCORING

Plant Identification	300 points
Grain Grading.....	300 points
Knowledge Exam	300 points
<u>Total Points</u>	
Individual	900 points
Team.....	2700 points

VII. TIEBREAKERS

Ties will be broken based upon scores in identification. If the tie remains unbroken, grain grading then general agronomic knowledge exam will be used to break the tie.



Crops Judging Material Order Form

Orders must be postmarked on or before
February 15th, 2025

Date:
P.O. #:

Ordered
by:

Mail or
Email
to: OSU Crops Judging Team

320G Agriculture Hall
 Stillwater, OK 74078
 405-744-3525
 beatrix.haggard@okstate.edu

Items	Unit Cost	Quantity	Total
Set of Laminated Plant Mounts	\$110.00		\$-
Set of Seed Sheets	\$90.00		\$-
Set of Grain Grading Sheets	\$50.00		\$-
Complete Study Kit	\$250.00		\$-
Includes binder with one set of laminated plant mounts, one set of seed sheets, and one set of grain grading sheets			
Individual Plant Mounts	\$1.50		\$-
explain which plant in comments below			
Individual Seed Packets	\$2.00		\$-
explain which seeds in comments below			
Contest Kit	\$180.00		\$-
contest hosting colleges only			
Comments			Total Cost
			\$-

Total Cost \$-

Thank you for supporting the OSU Crops Judging Team. Orders are normally completed and shipped a week after receiving an order. Any questions, concerns, or comments can be directed to Dr. Beatrix Haggard. Contact information is listed above.