



Student Crop Judging Contest

Purpose:

This contest provides an opportunity for undergraduate students to practice tangible agronomic skills on the spot and receive feedback on them from industry agronomists. It also works to encourage students to participate in other crops judging contests throughout the year.

Awards and Recognition:

First Place Team: \$100

Individuals:

1st Place: \$350	2nd Place: \$300
3rd Place: \$250	4th Place: \$200
5th Place: \$150	6th Place: \$100

Eligibility:

All contestants must be currently enrolled in a SASES institution in good standing. Upon registration, a contestant number will be assigned to be used for identification on all answer forms. All registration will be by individuals. No more than 10 contestants may be entered from any one school.

Rules and Procedures

No communication with contestants or anyone else except supervisors will be permitted once the contest has started. Coaches may not communicate with a team or individuals until the contest is finished. No cell phones, text messaging, or conferring during the contest will be allowed. Contestants observed in violation of this WILL be disqualified from the competition.

Contestants must bring a pencil and should bring a hand held calculator and clipboard into the contest. If the calculator is programmable it must be cleared of all stored programs. No device capable of sending or receiving wireless messages may be used as a calculator. A hand held magnifying lens may be used in identification and on the lab practical. All required information and reference material necessary will be provided. Contestants may not bring notes or reference material of any kind. A list for plant and seed identification, insects, and diseases will be provided.

Officials designated by SASES will be responsible for preparation of all contest materials, setting up the contest, providing the official keys for scoring, and overseeing the contest operation and scoring of papers. Monitors will be assigned to each of the sections of the contest and will be responsible for the operation and conduct of each section. Club Advisors and Certified Crop Advisors in attendance will be asked to help conduct and monitor the contest and score papers during and after the contest.

Tie Breakers. Ties will be broken using the following contest sections: First – lab practical scores Second – plant and seed identification scores Third – agronomic problem solving scores
Announcements made on the contest day will take precedent over the previously published rules.

2017 Deadlines

Sign up by: September 18 to secure a place.
(or until all places are filled.)

www.acsmeetings.org/undergraduates

The contest will be divided into three areas with 150 total points as follows:

- Lab Practical (50 points)
- Crop and Weed Plant and Seed Identification (50 points)
- Agronomic Problem Solving (50 points)

Thirty minutes will be allowed for completion of each section. Additional descriptions and specific rules for each section of the contest follow and will be considered official for the contest

A. Lab Practical

This section will consist of 25 stations worth 2 points each for a total of 50 points. Each station will have photographs or actual samples of various crop or weed plants, plant parts, growth stages, field problems, nutrient deficiencies, herbicide injury symptoms, fertilizers, pesticides, seed samples, pesticide labels, seed bags, data tables, equipment, insects, diseases, etc. along with specific questions which will require identification, interpretation, calculation, or evaluation of the display material to answer correctly. These stations will represent activities commonly completed in laboratory classes, crop scouting, investigating agronomic production problems, or field trips in crop production and soil management courses. For example, contestants may have to:

- Identify common crop diseases and disease symptoms (see attached list – copy of list will be provided during contest)
- Identify common crop insects and insect damage (see attached list – copy of list will be provided during contest)
- Identify or describe common crop production and soil management practices from photos illustrations, or displays
- Evaluate various crop production or soil health problems from photos, illustrations, or displays o Identify specific plant and seed structures, crop growth stages, or developmental characteristics on plant samples or photos
- Recognize common nutrient deficiency symptoms (N, P, K, S, Fe) on both dicot and grass crops o Recognize common herbicide injury symptoms on weeds and crops
- Read and interpret information from a commercial seed bag (germination, purity, seed size, noxious weeds, variety or hybrid identification, genetically modified traits, refuge requirements, seed treatments applied, recommended seeding rates, planter adjustments, recognize classes of pedigreed seed from standard color of tags, etc.)

Student Crop Judging Contest—page 2

- Interpret information on an insecticide, fungicide or herbicide labels, including composition of active ingredients, common and chemical names, formulation, agricultural use requirements, precautionary statements, environmental restrictions, and recommended rates and application requirements for use on specific crops and/or soils
- Describe common fertilizer carriers (major nutrient supplied, typical analysis, common name) and interpret information on a fertilizer bag
- Recognize common pesticide formulations and their standard abbreviations
- Determine proper sprayer nozzle tip size and type, screens, pressure, etc. for pesticide applications
- Identify and explain the purpose of items such as agricultural lime, inoculum, seed treatments, soil amendments, etc. o Use a soil textural triangle to name soil textural class
- Determine soil texture by feel, distinguish different types of soil structure, relate soil color to soil properties
- Interpret information found in a soil survey or on a soil test report
- Identify stored or processed crop products and common livestock feed ingredients made from crops (silage as to type, hay as to type, alfalfa pellets and cubes, soybean meal, cottonseed meal and hulls, wheat bran, corn meal, beet pulp, dried distillers grains, flaked or ground grains, etc.)
- Match various food and/or industrial products with the crops (or classes of a crop) from which they are made
- Evaluate crop quality by ranking two or more samples of hay, silage, seed, or cotton and give typical levels for quality factors in various grain and forage crops (ie. protein content, oil content) o Write the commercial grade and grade determining factors for market grain samples given various quality factors and official FGIS grain standards tables
- Interpret data from tables or graphs (ie. analyze a variety trial based on LSD mean comparison statistic, select the proper spray nozzle tip for given conditions from a manufacturer's spraying equipment manual, read a calibration nomograph for a sprayer or planter, interpret crop yield response to different input levels, determine economic threshold from pest counts vs. yield response given control costs, etc.)

B. Crop And Weed Plant And Seed Identification

1. A total of 25 specimens will be included in the contest. Plants and seeds will be identified by common name as given on the official identification list provided to each contestant. Each sample will be worth 2 points for a total of 50 points.
2. Crop and weed plants will be shown either as fresh or dried and pressed samples.
3. Crop and weed identification materials will be selected from the official identification list. Items are marked with a (p) for plants that may be shown in the flowering to mature plant stage, (v) for plants that may be shown in the vegetative stage, and (s) if seed identification is required.

4. Hand magnifying lenses will be allowed.
5. Sample specimens may not be moved from their station. Live plant specimens may be touched carefully to aid in identification, but must not be broken or damaged by the contestant or disqualification may result. Dried, pressed plant specimens cannot be touched. Seeds may be rearranged in their place but may not be removed from their containers.

C. Agronomic Problem Solving

This section will consist of a solving problems related to an agronomic production scenario. It will require evaluation of provided materials and background information to make calculations and/or develop recommendations for a hypothetical crop in a given cropping system and location. Examples of provided materials may be crop consultant reports, cropping system in use, tillage history, previous crop production history, soil test reports, hybrid/variety descriptions, plant analysis reports, GPS produced yield maps, other GIS data for development of precision based recommendations, remotely sensed data or maps, climatic data (precipitation, temperature, average frost dates, etc.), seed, chemical, soil amendment and nutrient application history for current and prior years. Costs for inputs and management practices may be provided along with expected prices for crop products. Recommendations required may include crop and hybrid/variety selection, planting dates, planting equipment, seed treatments, tillage and cultivation required and when completed, crop rotation and cropping system adjustments, irrigation scheduling (if available), pest management options, and all soil amendment, nutrient and pesticide applications (recommended products, time of application, method of application, adjuvants if needed). For seed and any other inputs (fertilizer, lime, herbicides, insecticides, seed treatments, etc.) calculation of correct rates will be required. Calibration of actual equipment or problems related to calibration may also be required. Predicted maturity date and yield estimates may have to be calculated. An economic analysis of expected profit/loss based on yield predictions may also be required. The plant list is available on the contest website.

Participation:

Any student wishing to participate must sign up on the website by the deadline listed there.

Judges and Judging:

Contests forms will be graded by members of the AC449.13 committee and additional representatives appointed by the chair. All decisions made by the graders will be final and not open for debate.

Contact:

Contest Chair: Nathan Kosbau, CHS
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ASA • CSSA • SSSA Contact:

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