

# National Agriculture Challenge Rules

## Rules

Teams consist of four members from one high school. Team score is determined by combining the scores of all four students of the Written Exam and Component Identification from each team. That score is combined with the team score for Locating Issues in Agricultural Tractors.

Qualifications of a team member:

- a. Each team member must be a current member of the FFA chapter of the school they represent.
- b. The FFA Advisor must certify the eligibility of each team member at registration.

The contest will be judged by industry professionals from the agricultural and construction industries.

Decisions of the judges will be final.

In the event of a tie:

- a. Team tie breaker will be decided by the highest individual score
- b. Individual tiebreaker will be decided by the highest team score

Each team member will participate individually in Part 1 and 2 of the contest, and work as a member of the team in Part 3 of the contest.

The time limit for each part of the contest is 30 minutes.

Contestants are required to wear industrial quality eye protection during Parts 2 and 3.

## Event Format

### Part 1 – Written Exam

Contestants will complete up to 80 objective type questions, true or false and multiple choice.

Multiple choice questions may have one or more correct answers

## **Part 2 – Component Identification**

Contestants will appraise 10 or more components or parts from agricultural tractors/equipment.

Service data from manufacturer's service manuals or IT service manuals will be provided where specifications are needed to make the evaluations.

Measuring devices for the component evaluation will be provided if needed.

Contestants will complete a review of electrical circuits on electrical training boards and answer questions based on components of the circuits and/or potential issues with the circuits.

- a. Proper use of a Digital Volt Ohm Meter (DVOM) will be required to answer the questions.
- b. Fluke Digital Volt Meters will be provided.

## **Part 3 - Locating issues in Agricultural Equipment**

A school team of four contestants, working as a group, will compete with the teams from the other schools in locating and correcting three deliberately placed malfunctions in equipment.

All equipment will have the same malfunctions and service work orders listing owner/operator comments on issues needing resolved will be provided.

There will be a maximum of three malfunctions, repairs, or safety issues per equipment, and all equipment will have the same malfunctions, repairs, safety issues.

Systems of the equipment that may be considered during the selection of malfunctions: engine, powertrain system, hydraulic system, chassis, and safety.



The malfunctions may or may not have an immediate detriment to the starting or performance of the equipment.

Any needed tools or test equipment will be provided along with manuals or other resources.

Contestants are to notify judges of any deficiencies concerning: transmission and/or hydraulic fluid, coolant, and or crankcase oil.

Service Work orders will be graded for completion of information on the equipment, customer, and issues.

## **Event Contacts**

Company	Name	Contact Information
 The logo for the Western Farm Show features a stylized green 'W' with a leaf-like shape on top, followed by the text 'WESTERN FARM SHOW' in a bold, black, sans-serif font.	<p><b>Jami Applegate</b> Western Farm Show Manager</p>	<p>+816-412-6118 japplegate@naeda.com</p>
 The logo for the American Royal in Kansas City is circular. It features a blue crown in the center with the letters 'A', 'R', and 'R' in red and blue. The words 'AMERICAN ROYAL' are written in blue around the top inner edge, and 'KANSAS CITY' is written in blue around the bottom inner edge.	<p><b>Regan Gleason</b> Competitive Educational Activities Coordinator</p>	<p>+816-569-4043 reganc@americanroyal.com</p>