

Agricultural Technology & Mechanical Systems

Contest Description and Rules:

Please direct questions to:

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Individuals participating in contest and/or event activities are required to provide:

- Pencils
- Calculators
- **SAFETY GLASSES**
- **Appropriate Clothing (for the performance of skill activities)**

FAILURE to wear SAFETY GLASSES and APPROPRIATE CLOTHING, which is in good repair, will **result in loss of points for safety and/or disqualification** from the impacted activities.

The University of Wisconsin-River Falls, Agricultural Engineering Technology Department, will provide all necessary specialized equipment for the performance of skill activities.

The University of Wisconsin-River Falls, Agricultural Engineering Technology Department, will furnish all other materials. Materials will include, but not limited to, hand and power tools, technical manuals, and computer (hardware and software). Computer hardware will be Windows based.

Individual and Team activities may include a broad range of problem solving and performance skills as defined by the National FFA Foundation.

- **Machinery and Equipment:** Repair and maintenance, materials handling, processing, adjustments, metal fabrication.
- **Electricity:** AC/DC power, electrical safety, electrical standards, sensing devices, electrical wiring, controls, electronics, motors and other electrical loads, operating instructions, and manufacturer's recommendations.
- **Compact Equipment:** Mechanical power, electrical power, hydraulic power, engine operation, maintenance, trouble-shooting, repair.

- **Structures:** Structures, storage, concrete, masonry, plumbing, electrical, fabrication, construction, building materials, ventilation, heating, air conditioning.
- **Environment and Natural Resources:** Water quality, sustainable agricultural practices, soil and water conservation, surveying, biological waste handling.

Team Activity:

The individuals on each state team will work together and evaluated as a team while solving multi-system agricultural problem(s) selected from the skills and problem solving of the five system competency areas.

Event and Contest Organization:

- Individual skill/problem solving activities:
 - 60 minutes, (3 of 5 system activities will be selected)
- Written examination:
 - 60 minutes, (50 multiple-choice questions, 10 from each of the 5 systems)
- Team activity:
 - 60 minutes, (integrated problem associated with the theme)

FFA Qualifying Event:

- Teams participating in the Wisconsin FFA Ag Mechanics Qualifying Event will compete in all of the areas listed above. A team consists of four individuals. The composite score of all team members comprises the team score.

Ag Technology Contest:

- Teams participating in the Ag Technology-Ag Mechanics Contest will compete in the individual skill/problem solving activities and the written examination; they will not complete the team activity. A team consists of 2 individuals.

Scoring:

- FFA Qualifying Event:
 - Written examination: 30%
 - Individual skill/problem solving activities: 45%
 - Team Activity: 25%
 - Total: 100%
- Ag Technology Contest:
 - Written examination: 50%
 - Individual skill/problem solving activities: 50%
 - Total: 100%