
2024 CYAE
Agricultural Mechanics Show



Ag Mechanics Schedule

Project Check -In:

- Thursday, August 1st | 7 a.m.-3 p.m. | Location Syngenta Foyer

Staging:

- Thursday, August 1st | 7a.m.-6 p.m. | Location Syngenta Foyer

Judging/Show Schedule:

- Friday, August 2nd | 8:00 a.m. | Location Ag Mech Lot

Awards Ceremony and Sponsor Recognition:

- Friday night, Grand Drive | Aug 2nd

Move Out:

- Sunday, August 4th | All Day | Projects Must be out by 3pm on Sunday

Entries

- \$25 entry fee - Due at CYAE Entry Deadline

Ag Mechanics Awards

Class Premiums:

- Premiums will be paid out in class depending on the number of entries.

Awards

Exhibitors winning Champions Division and Overall Grand Champion will receive awards and scholarship money depending on the number of entries.

Total awards for the Ag Mechanics Contest will be up to \$50,000.

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CALIFORNIA YOUTH AG EXPO SHOW BOOK

Purpose

The California Youth Ag Expo's goal is to recognize California's youth who are studying, and practically applying mechanical principles and technology in agriculture-based projects.

Goals

- Provide students an opportunity to achieve local and state recognition for their large agricultural mechanics efforts and projects.
- Reinforce skills and principles learned in agriculture courses.
- Provide an opportunity for students to demonstrate and display their agricultural mechanics projects.
- Provide recruiting and promotional opportunities for agricultural education programs.
- Help promote large project fabrication

Tie Breaker

Tie Breakers will be broken on the Interview Score, and the panel of the judges will determine the winner.

General Rules:

- A. Tie Breakers will be broken on the Interview. If a tie still exists, a panel of the judges will determine the winner. All competitors will compete in one contest, there is no "A and B Contest" with one entry per person or pair.
- B. All Entries Will be made on "ShoWorks" which can be found on the CYAE website. An "Entry" will include the project, a show book (described below) and one or two members who completed the project and compiled the Show Book. Projects that were built as a group project will have no more than two members representing the effort. Individually constructed projects may be represented by one or two members if the second member contributes to the Show Book. The competing students shall be the principal builder(s) of the entry as well as the author(s) of the Show Book. Students will be in CYAE show attire. Each group will have a shirt color that represents their organization. Such groups will be represented by FFA, 4H, Grange and Independent.
- C. **All Entries will be considered "large projects" by the advisor and will have a stated value of \$750 or more in their Show Book to be considered.** Items shall be of

the type and kind constructed in a California Ag Mechanics shop; home-built projects are allowed. Entries shall have been completed in the previous 12 months.

D. Loss or Damage

Every precaution will be taken to protect the projects entered; however, neither the California Youth Ag Expo, its staff, directors, superintendents nor judges will be responsible for any loss or damage to projects

E. Entries MAY be broken into the following Divisions for judging:

Classes with less than 5 projects may be collapsed with other classes.

Division 1: Field Machinery & Equipment (Including Implements of husbandry)

- Class 101 Spraying Equipment
- Class 102 Tractor/Skid Steer Attachments
- Class 103 Truck & Equipment Accessories
- Class 104 Squeeze Chutes & Restraining Equipment

Division Champion
Reserve Division Champion

Division 2: Cooking Equipment & Food Processing

- Class 201 Stationary Smokers / Grills
- Class 202 Trailer Mounted Cookers
- Class 203 Other Food Processing (Animal Skinning Rack, Game/Carcass Hoist, Etc)

Division Champion
Reserve Division Champion

Division 3: Home, Shop and Farmstead Items

- Class 301 Shop Equipment and Accessories
- Class 302 Truck bed / Welding Skid
- Class 303 Wood Primary
- Class 304 Shed or Agricultural Structures
- Class 305 Gates & Livestock Panels

Division Champion
Reserve Division Champion

Division 4: Trailers

- Class 401 Bumper Pull – 11' and Under
- Class 402 Bumper Pull – 11' and Over
- Class 403 Gooseneck
- Class 404 Specialty Trailers

Division Champion

Reserve Division Champion

Division 5: Repaired Tractors, Equipment or Implements

- Class 501 Repaired Tractors, Equipment or Implements

Division Champion

Reserve Division Champion

F. The Judges will:

- a. The judge(s) will examine the project. The members will be in the immediate area during this time to answer questions about the project.
- b. The judge(s) will interview the entrant(s). Contestants will point out features of their project and their show book during this time. This will be in the area of the entry; a table may be used to hold the Show Book.
- c. The judge(s) will examine the show book, make their comments and if necessary, re-examine the project and ask any follow up questions.

G. The Show Book shall consist of a 1" Ring Binder with common slip sheets used to organize not more than 15 pages of white paper. Typed 8.5"x 11"pages will not be smaller than 12 font and will maintain a 1" margin. It shall be on display prior to and after judging. Inside the binder, there will be:

- a. Cover and Title Page will be on the front of the Show Book, including name(s) of contestants, Chapter, Title of the Project, and the Group that it will be judged in.
- b. Introduction Page that includes the need for the project, its primary features, who the builder(s) was, who financed the project and how long the project took to complete. Limited to one page.
- c. A Budget and/or Actual Costs page that includes a Bill of Materials; limited to one page.
- d. Measured Drawings or Sketches that may be CAD or hand drawn. These must be the student's own work. Limited to 3 pages with any fold out page(s) counting as one page each.

- e. Steps of Construction pages that include pictures and a narrative recounting the construction of the project, the tools used, safety considerations, acknowledgements to assisting parties, issues that were resolved and any pertinent facts regarding construction. Limited to five pages.
- f. Addendum Picture and Description pages may be added for clarification. These are to be labeled “Addendum #1” etc. and will have a typed description of not more than 25 words on each page. Limited to five pages.

H. The Interview will commence with introductions and students should be ready to initiate the discussion with name, chapter, entry name and year in school. The student may refer to the Show Book for clarifying their answers. The Judge will then begin their line of inquiry that may include:

- a. Questions about tool operation and shop safety protocol followed
- b. Design and Build questions
- c. Paint and Finish Questions
- d. Questions determining familiarity with Entry operation
- e. Questions about costs, donations, materials, capacities etc.
- f. Hours of labor invested and people or entities who assisted

Critique Sheet

The Exhibit	Comments:
General Workmanship and Quality Fit and Finish Appropriate sanding, grinding, painting	
Practicality of Design and Construction This is a safe project. This is useful.	
Square, True, Flush, Plumb and/ or Correct Attention to detail; Eye appeal	
Quality of Cuts, Welds, Joints, Fasteners, Fit up, Wiring etc. Measurements match the plans; weld skill	
The Interview (100 points)	
Introductions and Overview	
Knowledge of the Project and Construction	
Awareness of Safety and Tool Use	
Technical awareness and attention to detail	

Speaking Voice, Eye Contact and Demeanor	
Show Book/Portfolio	-
Clear writing that is easy to read Free of typos and grammar errors The narrative is complete and logical	
Attention to Detail All key elements are present The book clearly explains how the project was constructed	
Follows the outline from above Page and Word count	

Ag Mechanics Guidelines

Presentation

- Teams should indicate to the judges which team member served as lead engineer and welder to better present information to the judges. All team members may present, but it is the responsibility of the team to clarify which team members worked on specific areas of the project.
- All projects should be complete including finishing. Any item, necessary for use of the project, must be a
- part of it (example: hinges and latches on gates and panels, lift pins, hydraulic hoses on tractor equipment, etc.), including documentation.
- All projects must be painted or properly treated and must be clean and in a presentable condition, even though they may have been used. No touch up painting of ANY type will be allowed inside the exhibit area.
- Due to limited exhibit space, trailers and other equipment are to be displayed in transport position.
- Operation of ramps, extensions and other special features may be demonstrated only as directed by the official judges and as space permits.
- No electricity will be available for computers or other electronic devices. An effort will be made to provide electricity for projects requiring it for operation during judging only. If possible.
- Tractors, trucks or other vehicles (including non-entered trailers) are not allowed in the exhibit area as part of the display. If the project is permanently attached, please contact staff or superintendents for ruling.

Safety on the Fairgrounds

- a. General Safety – Appropriate and safe display stands must be provided for gates, panels and other projects that need support. Sharp edges and points, such as found on self-feeder roofs, bale movers, etc. are to be padded or covered as necessary to prevent injury.
- Flammable and/or combustible liquids shall not be used, stored or sprayed inside any building at any time. This shall include, but not limited to, enamel paints, thinners, reducers, gasoline or any other petroleum-based liquids. All liquids must be in properly labeled original containers.
- All compressed gas cylinders shall be properly secured. Hand wheels are to be removed. Protective caps installed and taped.
- No regulators or hoses are to be installed at any time on grounds.
- **Trailer Safety** – All trailers and other equipment to be operated and/or transported on public roads are to be equipped with safety equipment specified in California Statutes.
- All towed equipment, regardless of standards, is to be equipped with safety chains. All three-point hitch and power take off (PTO) operated equipment are to meet current ASABE Safety and dimension standards.
- **Electrical Safety** – All 120 VAC and higher electrical plugs and receptacles must be grounded.
- Ground Fault Circuit Interrupters (GFCI) shall be required for all 120 VAC receptacles. All electrical connections
- are to be protected in appropriate indoor or outdoor rated enclosures.
- **Projects with Engines** – There is to be no more than five (5) gallons of fuel in any fuel tank. Fuel cap taped closed and secure against tampering. Disconnect all batteries. No vehicle and/or equipment refueling inside any building.