Agricultural Mechanics Fair

Revised 6/2024

Purpose and Standards

The FFA Agricultural Mechanics Fair recognizes the FFA members who are studying the application of mechanical principles and technology in their 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.

**Foundation Standards:** 1.0 Academic (1.1 Math, 1.2 Science), 2.0 Communications (2.1-2.4),

4.0 Technology, 5.0 Problem Solving and Critical Thinking, 6.0 Health and Safety, 7.0 Responsibility and Flexibility, 8.0 Ethics and Legal Responsibilities, 9.0 Leadership and Teamwork (Team Projects), 10.0 Technical Skills, 11.0 Demonstration and Application.

Pathway Standards: All pathway standards (A-G) are addressed according to specific agricultural mechanics projects.

Classes

|  |  |  |
| --- | --- | --- |
| **Class** | **Individual Points** | **Team Points** |
| Exhibit | 100 | 300 |
| Interview | 100 | 300 |
| Show Book | 50 | 150 |
| TOTAL | 250 | 750 |

See notes under rules.

Tie Breaker

Tie Breakers will be broken on the Interview Score. 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.

**General Rules:**

1. Tie Breakers will be broken on the Interview Score. 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.
2. 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 chapter 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 dress uniform.
3. Students may display tools and other equipment used in the construction of their project that add value to the interview.
4. The “Team” score will be the combined scores of three separate “Entries” from one chapter. Entries will compete individually, and their scores combined for a high team ranking.
5. Entries in the Ag Mechanics Fair will be considered “large projects” by the advisor and will have a stated value of $500 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.
6. Seniors will be eligible to compete until June 30th following their graduation.

1. Entries MAY be broken into the following Groups for judging:

Group 1: Farm Implements

Group 2: Implements of Husbandry

Group 3: Trailers and Flatbeds

Group 4: Home and Farmstead Items

Group 5: BBQ’s and Food Processing

Group 6: Repaired Equipment

1. The Judging Timeline will be as follows:
   1. Up to 10 minutes for the judge(s) to examine the project. The members will be in the immediate area during this time to answer questions about the project.
   2. Up to 10 minutes will be used for the interview. 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.
   3. Up to 5 minutes for the judge(s) to examine the show book, mark scores and if necessary, re-examine the project and ask any follow-up questions.
2. The Show Book shall consist of a 1” Ring Binder with common slip sheets used to organize not more than 20 pages of white paper. Typed 8.5”x 11”pages will not be smaller than 12 font and will maintain a 1” margin. An electronic copy of the showbook will be emailed to the state finals host on the Monday prior to the state finals contest. The showbook will be judged prior to the project. It shall be on display prior to and after judging. Inside the binder, there will be:
   1. 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.
   2. 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.
   3. A Budget and/or Actual Costs page that includes a Bill of Materials; limited to one page.
   4. Measured Drawings or Sketches that may be CAD or hand drawn. Limited to 3 pages with any fold out page(s) counting as one page each.
   5. 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.
   6. 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.
   7. Professional Resume Certiﬁcation pages may include a professional resume or any certiﬁcation a student may have earned during their time as a student. Limited to ﬁve pages.
3. 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:
   1. Questions about tool operation and shop safety protocol followed
   2. Design and Build questions
   3. Paint and Finish Questions
   4. Questions determining familiarity with Entry operation
   5. Questions about costs, donations, materials, capacities etc.
   6. Hours of labor invested and people or entities who assisted

**Score Sheet**

|  |  |
| --- | --- |
| **The Exhibit (100 points)** | Possible |
| General Workmanship and Quality  Fit and Finish  Appropriate sanding, grinding, painting | 40 |
| Practicality of Design and Construction  This is a safe project. This is useful. | 20 |
| Square, True, Flush, Plumb and/ or Correct  Attention to detail; Eye appeal | 20 |
| Quality of Cuts, Welds, Joints, Fasteners, Fit Up, Wiring etc.  Measurements match the plans; weld skill | 20 |
| **The Interview (100 points)** |  |
| Introductions and Overview | 10 |
| Knowledge of the Project and Construction | 40 |
| Awareness of Safety and Tool Use | 10 |
| Technical awareness and attention to detail | 20 |
| Speaking Voice, Eye Contact and Demeanor | 20 |
| **The Show Book (50 points)** | - |
| Clear writing that is easy to read  Free of typos and grammar errors  The narrative is complete and logical | 20 |
| Attention to Detail  All key elements are present  The book clearly explains how the project was constructed | 20 |
| Follows the outline from above  Page and Word count | 10 |
| **Total Score** | **250** |