

MINNESOTA STATE FAIR

Aug. 22-Sept. 2, 2019

FFA Agriculture Technology

Superintendent..... T. J. Brown, Lake Crystal, MN
Board Member..... Joe Scapanski, Sauk Rapids, MN
Assistant Superintendent..... Joel Larsen, New Prague, MN

FFA Agriculture Technology Rules.

1. Exhibits from individual students, groups, classes, or FFA chapters.
 - A. **Eligibility.** Open to Minnesota students, grades 7-12, who are currently enrolled in an agricultural education program during the 2018-2019 school year, or who are active members of a FFA chapter in good standing with the state FFA association.
 1. FFA members enrolled in new or reestablished programs are not eligible to exhibit until the fair following the first academic year of operation.
 2. Exhibitors who have not graduated from high school must have been enrolled in at least one agriculture class during the current year.
 3. Must be current, paid members in good standing of the State FFA and National FFA.
 4. Exhibits must have been completed since the close of the 2018 Minnesota State Fair.
2. A committee will evaluate projects to determine if they are the type, kind and quality to be representative of agricultural technology.
3. **Entries.**
 - A. **All exhibits must be registered online; no unregistered exhibits will be accepted at the door.** One entry per individual per class.
 - B. **Entries open May 6 through Aug. 7, 2019, 4:30 p.m.**
 - C. Entries must be made by the FFA advisor.
4. **Exhibit delivery.** Exhibits should be brought to the Education Building on the delivery dates and times indicated.
 - A. **Delivery dates and times.** Monday, Aug. 19, 2019 8 a.m. to 4 p.m. and Tuesday, Aug. 20, 2019 8 a.m. to noon.
 1. Exhibits to be brought to the Education Building. Very large projects MUST be approved before registration; contact Joel Larsen at joel.larsen@state.mn.us for assistance.
 - B. **Exhibits may not be dropped off at any other time,** unless prior arrangements have been made for staff from FFA Agriculture Technology to be present to accept exhibits.
 1. Only FFA Agriculture Technology staff may accept FFA Agriculture Technology exhibits.
 2. The K-12 Competition and Technology Education staff will not accept exhibits entered in the FFA Agriculture Technology division.
5. **Identification.**
 - A. **Exhibit tags.** Will include the following information: Class description, student name, student grade and FFA chapter name.
 1. Tags will be mailed to the address of the advisor who registered the entries.
6. **Judging.** In classes where entries exceed 10, classes may be split at the discretion of the superintendent.
 - A. Judging begins the day before fair starts. After judging, entries will be selected for display.
 - B. Points are calculated on: quality of workmanship, design, fabrication, finish and overall appearance, functionalism, selection of materials, and safety.
7. **Removal of exhibits.** Tuesday through Thursday, Sept. 3-5, 2019, from 10 a.m. to 6 p.m.
 - A. Appointments for exhibit removal for dates/times other than above must be made by contacting the Competition Department at 651-288-4417.

Division A: Leadership

Leadership

1. **Exhibits.** Include education materials, science display or projects relating to Leadership, Power, Structures, and Electricity Systems; Natural Resource and Environmental Systems; Animal and Plant Sciences.
 - A. Educational materials defined as projects or displays allowing individuals to read, learn, and understand a concept or standard.
 1. Term papers and reports are not included in educational materials.
 - B. Must be student made, and reflecting an activity carried out in any agricultural mechanic subject area. May be the work of an individual student, or a group of two or more students.
 - C. Working models, graphic, or three dimensional presentations.
 - D. Exhibits should be mounted on plywood, masonite or other sturdy material for display.
 - E. **Judging.**
 1. Basis for judging design and functionalism will be the effectiveness of the project or teaching aid in illustrating or clarifying a principle or idea.
 2. Special consideration given to workmanship and suitability for public display in judging.

Premiums for Leadership

Divisions A-F (except champions)
\$13 \$10 \$8 \$6 \$3

Class Listing for Leadership

Leadership

- 1 Educational Materials, Individual, Grade 7-9
Displayed at the FFA Chapter House and Leadership Center.
- 2 Educational Materials, Individual, Grade 10-12
Displayed at the FFA Chapter House and Leadership Center.
- 3 Educational Materials, Group
Two or more individuals.
Displayed at the FFA Chapter House and Leadership Center.

15 Champion; Leadership

Division B: Power, Structures and Electricity Systems

Power, Structures and Electricity Systems

1. **Exhibits.** Include education materials, science display or science fair projects relating to Leadership, Power, Structures, and Electricity Systems; Natural Resource and Environmental Systems; Animal and Plant Sciences.
 - A. Educational materials defined as projects or displays allowing individuals to read, learn, and understand a concept or standard.
 1. Term papers and reports are not included in educational materials.
 - B. Must be student made, and reflecting an activity carried out in any agricultural mechanic subject area. May be the work of an individual student, or a group of two or more students.
 - C. Working models, graphic, or three dimensional presentations.
 - D. Exhibits should be mounted on plywood, masonite or other sturdy material for display.
 - E. **Judging.**
 1. Basis for judging design and functionalism will be the effectiveness of the project or teaching aid in illustrating or clarifying a principle or idea.
 2. Special consideration given to workmanship and suitability for public display in judging.

Premiums for Power, Structures and Electricity Systems

Divisions A-F (except champions)

\$13 \$10 \$8 \$6 \$3

Class Listing for Power, Structures and Electricity Systems

Power, Structures and Electricity Systems

- 1 Educational Materials, Individual, Grade 7-9
 - 2 Educational Materials, Individual, Grade 10-12
 - 3 Educational Materials, Group
Two or more individuals.
-
- 15 Champion; Power, Structures and Electricity Systems

Division C: Natural Resource & Envrmnt Sys

Natural Resource and Environmental Systems

1. **Exhibits.** Include education materials, science display or science fair projects relating to Leadership, Power, Structures, and Electricity Systems; Natural Resource and Environmental Systems; Animal and Plant Sciences.
 - A. Educational materials defined as projects or displays allowing individuals to read, learn, and understand a concept or standard.
 1. Term papers and reports are not included in educational materials.
 - B. Must be student made, and reflecting an activity carried out in any agricultural mechanic subject area. May be the work of an individual student, or a group of two or more students.
 - C. Working models, graphic, or three dimensional presentations.
 - D. Exhibits should be mounted on plywood, masonite or other sturdy material for display.
 - E. **Judging.**
 1. Basis for judging design and functionalism will be the effectiveness of the project or teaching aid in illustrating or clarifying a principle or idea.
 2. Special consideration given to workmanship and suitability for public display in judging.

Premiums for Natural Resource & Envrmnt Sys

Divisions A-F (except champions)

\$13 \$10 \$8 \$6 \$3

Class Listing for Natural Resource & Envrmnt Sys

Natural Resource and Environmental Systems

- 1 Educational Materials, Individual, Grade 7-9
 - 2 Educational Materials, Individual, Grade 10-12
 - 3 Educational Materials, Group
Two or more individuals.
-
- 15 Champion; Natural Resources and Environmental Systems

Division D: Animal Systems

Animal Sciences

1. **Exhibits.** Include education materials, science display or science fair projects relating to Leadership, Power, Structures, and Electricity Systems; Natural Resource and Environmental Systems; Animal and Plant Systems.
 - A. Educational materials defined as projects or displays allowing individuals to read, learn, and understand a concept or standard.
 1. Term papers and reports are not included in educational materials.
 - B. Must be student made, and reflecting an activity carried out in any agricultural mechanic subject area. May be the work of an individual student, or a group of two or more students.
 - C. Working models, graphic, or three dimensional presentations.
 - D. Exhibits should be mounted on plywood, masonite or other sturdy material for display.
 - E. **Judging.**
 1. Basis for judging design and functionalism will be the effectiveness of the project or teaching aid in illustrating or clarifying a principle or idea.
 2. Special consideration given to workmanship and suitability for public display in judging.

Premiums for Animal Systems

Divisions A-F (except champions)
\$13 \$10 \$8 \$6 \$3

Class Listing for Animal Systems

Animal Sciences

- 1 Educational Materials, Individual, Grade 7-9
 - 2 Educational Materials, Individual, Grade 10-12
 - 3 Educational Materials, Group
Two or more individuals.
-
- 15 Champion; Animal Systems

Division E: Plant Systems

Plant Sciences

1. **Exhibits.** Include education materials, science display or science fair projects relating to Leadership, Power, Structures, and Electricity Systems; Natural Resource and Environmental Systems; Animal and Plant Systems.
 - A. Educational materials defined as projects or displays allowing individuals to read, learn, and understand a concept or standard.
 1. Term papers and reports are not included in educational materials.
 - B. Must be student made, and reflecting an activity carried out in any agricultural mechanic subject area. May be the work of an individual student, or a group of two or more students.
 - C. Working models, graphic, or three dimensional presentations.
 - D. Exhibits should be mounted on plywood, masonite or other sturdy material for display.
 - E. **Judging.**
 1. Basis for judging design and functionalism will be the effectiveness of the project or teaching aid in illustrating or clarifying a principle or idea.
 2. Special consideration given to workmanship and suitability for public display in judging.

Premiums for Plant Systems

Divisions A-F (except champions)

\$13 \$10 \$8 \$6 \$3

Class Listing for Plant Systems

Plant Sciences

- 1 Educational Materials, Individual, Grade 7-9
 - 2 Educational Materials, Individual, Grade 10-12
 - 3 Educational Materials, Group
Two or more individuals.
-
- 15 Champion; Plant Systems
 - 20 Grand and Reserve Champion (divisions A-E)

Division F: Directed Activities

Directed Activities

1. **Exhibits.** Reflect introductory learning experiences, which develop skills that will be transferred to advanced project construction.
 - A. Must be the work of an individual student.
 - B. Must have an appropriate finish, and display quality workmanship.

Premiums for Directed Activities

Divisions A-F (except champions)

\$13 \$10 \$8 \$6 \$3

Class Listing for Directed Activities

Introductory Wood

- 1 Introductory wood project
 - 2 Nesting box
 - 3 Tool box
 - 4 Bird House
 - 5 Nail or tool carrier
 - 6 Plant stand
 - 7 Bird feeder
 - 8 Wood shelf
 - 9 Champion; Directed Activities, Introductory Wood
-

Intermediate Wood

- 10 Sawhorse
 - 11 Wood duck house
 - 12 Feeder
Pheasant, deer, livestock.
 - 13 House, other
 - 14 Plant stand
 - 15 Tray or folding table
 - 16 Miscellaneous wood project
 - 17 Lawn or garden furniture
 - 18 Table
Picnic, lawn or garden.
 - 19 Finished furniture stand without drawer
 - 20 Finished furniture table
 - 21 Finished furniture stand with drawer
 - 22 Champion; Directed Activities, Intermediate Wood
-

Introductory Metal

- 26 Miscellaneous metal project
- 27 Laser design project
- 28 C-clamp
- 29 Hitch pins, chisels and punches
- 30 Eye bolt, nut and bolt
Using tap and die.

- 31 Sheet metal project
- 32 Drill bit gauge
- 33 Metal stand or chair
- 34 Metal tool box

35 Champion; Directed Activities, Introductory Metal

Intermediate Metal

- 45 Welded shop stand
- 46 Adjustable work stand
- 47 Safety stand
- 48 Implement ramps
- 49 Portable light extension cord
- 50 Shop stool or chair
- 51 Two-wheel utility cart
- 52 Shop or fence specialty puller
- 53 Garden arbor
- 54 Mail box or landscape post
- 55 Tool gauge
- 56 Tool box
- 57 Shop work bench
- 58 Work table
- 59 Miscellaneous metal project
- 60 Metal display sign
- 61 Welded art

62 Champion; Directed Activities, Intermediate Metal

Natural Resources and Outdoor Environment Projects

- 70 Forestry and natural resources, metal
- 71 Forestry and natural resources, wood
- 72 Fishing rod
- 73 Ice fishing rod
- 74 Wildlife feeder
- 75 Antler mount
- 76 Tree stand
- 77 Gun rack/cabinet

78 Champion; Directed Activities, Natural Resources and Outdoor Environment Projects

Advanced Construction

- 80 Special wood project
With agricultural application.
- 81 Special metal project
With agricultural application.
- 82 Special concrete project
With agricultural application.

- 83 Special electronics project
With agricultural application.
- 84 Special hydraulics project
With agricultural application.
- 85 Patio deck furniture, wood
- 86 Patio deck furniture, metal
- 87 Miscellaneous advanced project

- 88 Champion; Directed Activities, Advanced Construction
- 90 Grand and Reserve Champion (division F)

Division G: Large Construction Project

Large Construction Project

1. **Exhibits.** Entries in this division are projects too large or expensive to transport and display. No small projects.
 - A. Exhibits will consist of plans, pictures, and an explanatory informational paragraph of the project.
 - B. Exhibits should be mounted on tagboard for display.
 - C. **Judging.** Judged on uniqueness of design, utility, and workmanship.

Premiums for Large Construction Project

Divisions G and L (except champions)

\$20 \$16 \$13 \$10 \$7

Class Listing for Large Construction Project

Large Construction Project

- 1 Permanent agricultural building
- 2 Portable agricultural building
- 3 Large projects primarily of wood, wood planter box
Plans provided.
- 4 Large projects primarily of metal, portable welding table
Plans provided.
- 5 Large energy conservation project, portable light stand
Plans provided.
- 6 Mechanization using sensing controls
- 7 Champion; Large Construction Project

Division H: Misc Ag and Home Equipment

Miscellaneous Agriculture and Home Equipment

1. Must be the work of an individual student.

Premiums for Misc Ag and Home Equipment

Divisions H-K (except champions)

\$13 \$10 \$8 \$6 \$3

Class Listing for Misc Ag and Home Equipment

Miscellaneous Agricultural and Home Equipment Construction

- 1 Designed Adirondack wood chair
Using Wood Craft Project plan 412186.
- 2 Designed welding table, individual
Project plan available from superintendent Joel Larsen.
- 3 Designed welding table, team
Project plan available from superintendent Joel Larsen.
- 4 Shop equipment
examples: work benches, tool cabinets, etc.
- 5 Equipment, largely of wood
examples: self feeders, holding pens, chutes
- 6 Equipment, largely of metal
examples: gates, feed carts, post drivers.
- 7 Equipment, metal, recreational
examples: patio, barbecue units, etc.
- 8 Wood splitting machine or tool
May utilize a small gasoline engine or tractor as power source.
- 9 Hydraulic press
- 10 Motor stands
- 11 Work bench
- 12 Alternate energy related project
- 13 Engine hoist
- 14 Champion; Misc. Agricultural and Home Equipment

Division I: Major Ag Equipment

Major Agricultural Equipment

1. **Exhibits.** Must be able to pass through an eight foot door.
 - A. **Restored tractors.** Must be unloaded. Will be displayed in Education Building.

Premiums for Major Ag Equipment

Divisions H-K (except champions)

\$13 \$10 \$8 \$6 \$3

Class Listing for Major Ag Equipment

Major Agricultural Equipment

- 1 Tandem wheel implement trailer
- 2 Two wheel trailer
Must include the running gear and box or rack.
- 3 Carpentry
Construction largely of wood. Examples: wagon or trailer boxes, large feeders, farrowing crates, brooder houses, etc.
- 4 Metal construction
Construction largely of metal. Examples: garden tractors, grain or bale elevators, livestock crate, etc.
- 5 Large alternate energy project
- 6 Project utilizing hydraulic components
- 7 Tractor restoration, individual
- 8 Tractor restoration, chapter
- 9 Multipurpose application of sensing and automatic controls
- 10 Miscellaneous major agricultural equipment
- 11 Lawn sprayer
- 12 Champion; Major Agricultural Equipment

Division J: Ag-Mech-Tech

Ag-Mech-Tech

1. A project that has been constructed or may be used to develop an instructional outline that teaches principles, concepts and rules as applied to agricultural mechanics in agricultural education using mechanics, geometric, mathematical, physics, etc.
2. **Exhibits.** Exhibits in Ag-Mech-Tech and Computer-Mech-Tech will be selected from exhibits entered in the Exchange of Ideas Competition at the State MVAIA Meeting in July for competition at the Minnesota State Fair.
 - A. Stand alone projects may be entered.
 - B. If the physical item is too large to transport to the fair, a 5 x 7 inch or 8 x 10 inch picture may be substituted.
 - C. All printed materials, pictures, sketches, and instructional outlines must be mounted on heavy tag board or fiberboard.

Premiums for Ag-Mech-Tech

Divisions H-K (except champions)

\$13 \$10 \$8 \$6 \$3

Class Listing for Ag-Mech-Tech

Ag-Mech-Tech

- 1 Power technology
Fluid, internal combustion, water, solar, pneumatics.
- 2 Machinery applications
Moving materials, harvest, storage, processing.
- 3 Environmental
Water, soil, air.
- 4 Sensor and control technology
Electronic, electrical, computer.
- 5 Construction and fabrication technology
Materials, processes, procedures, assembly techniques.
- 6 Combination of two or more concepts

Division K: Computer-Mech-Tech

Computer-Mech-Tech

1. Should illustrate the application of computer science to agricultural technology in agricultural education.
2. **Exhibits.** Exhibits in Ag-Mech-Tech and Computer-Mech-Tech will be selected from exhibits entered in the Exchange of Ideas Competition at the State MVAIA Meeting in July for competition at the Minnesota State Fair.
 - A. Stand alone projects may be entered.
 - B. Pictures, sketches, and printouts explaining the project are to be mounted on heavy tag board or fiberboard.

Premiums for Computer-Mech-Tech

Divisions H-K (except champions)

\$13 \$10 \$8 \$6 \$3

Class Listing for Computer-Mech-Tech

Computer-Mech-Tech

- 1 Power technology
Fluid, internal combustion, water, solar, processing.
 - 2 Machinery applications
Moving materials, harvest, storage, processing.
 - 3 Environmental
Water, soil, air.
 - 4 Sensor and control technology
Electronic, electrical, computer.
 - 5 Construction and fabrication technology
Materials, processes, procedures, assembly techniques.
 - 6 Combination of two or more concepts
-
- 7 Champion; Ag-Mech-Tech and Computer-Mech-Tech (classes J-K)