

FFA AGRISCIENCE PROJECT DISPLAY

Section Superintendents

Kadie Smith & Matt Boyer

May Begin Setup: Tuesday, September 10, 5:00 p.m.

Setup Completed By: Tuesday, September 10, 7:00 p.m.

Judging: Wednesday, September 11 (Students will not be present while judging

is taking place.

Released: Sunday, September 15, 8:00 a.m. and be out by 2:00 p.m.

1. The purpose of the Agriscience Project Display is to provide an opportunity for individual FFA members to compete in a science fair related to agriculture. Members who have developed a project based on the application of scientific principles and emerging technologies in agriculture are eligible. It is also designed to educate parents, school officials, and the public about career opportunities available for Agriscience students.

2. Categories are:

- **Animal Systems (AS)**
 - * The study of animal systems, including life processes, health, nutrition, genetics, management and processing, through the study of small animals, aquaculture, livestock, dairy, horses, and/or poultry.
 - Examples:
 - Compare nutrient levels on animal growth.
 - Research new disease control mechanisms.
 - Effects of estrous synchronization on ovulation.
 - Compare effects of thawing temperatures on livestock semen.
 - Effects of growth hormone on meat/milk production
- **Environmental Services/Natural Resource Systems (ENR)**
 - * The study of systems, instruments and technology used in waste management; the study of the management of soil, water, wildlife, forests and air as natural resources and their influence on the environment.
 - Examples:
 - Effects of agricultural chemicals on water quality.
 - Effects of cropping practices on wildlife populations.
 - Compare water movements through different soil types.
- **Food Products and Processing Systems (FPP)**
 - * The study of product development, quality assurance, food safety, production, sales and service, regulation and compliance and food service within the food science industry.
 - Examples:
 - Effects of packaging techniques on food spoilage rates.
 - Resistance of organic fruits to common diseases.
 - Determining chemical energy stored in foods.
 - Control of molds on bakery products.
- **Plant Systems (PS)**
 - * The study of plant life cycles, classifications, functions, structures, reproduction, media and nutrients, as well as growth and cultural practices, through the study of crops, turfgrass, trees and shrubs and/or ornamental plants.
 - Examples:
 - Determine rates of transpiration in plants.
 - Effects of heavy metals such as cadmium on edible plants.
 - Compare GMO and conventional seed/plant growth under various conditions.
 - Effects of lunar climate and soil condition on plant growth.
 - Compare plant growth of hydroponics and conventional methods.
- **Power, Structural and Technical Systems (PST)**
 - * The study of agricultural equipment, power systems, alternative fuel sources and precision technology, as well as woodworking, metalworking, welding and project planning for agricultural structures.
 - Examples:
 - Develop alternate energy source engines.
 - Create minimum energy use structures.
 - Compare properties of various alternative insulation products.
 - Investigation of light/wind/water energy sources
- **Social Systems (SS)**
 - * The study of human behavior and the interaction of individuals in and to society, including agricultural education, agribusiness economic, agricultural communication, agricultural leadership and other social science applications in agriculture, food and natural resources.
 - Examples:
 - Investigate perceptions of community members towards alternative

agricultural practices.

Determine the impact of local/state/national safety programs upon accident rates in agricultural/natural resource occupations.

Comparison of profitability of various agricultural/natural resource practices.

Investigate the impact of significant historical figures on a local community.

Determine the economical effects of local/state/national legislation impacting agricultural/natural resources

Students will only be allowed to enter in one category

3. The Agriscience Project Display must meet all requirements outlined below. Each student must provide their own top and skirting. Electrical outlets are provided.

- Each exhibit should include information relevant to the study and any objects the student wishes to display. All projects must have the following information attached to the exhibit:

- * Name of person(s) responsible for developing the project
- * Chapter Name
- * Title of category entered

- Display:

Preferred Display Requirements:

It is preferred that Agriscience fair participants display the results of their study utilizing a standard printed poster with dimensions of 36 inches (height) by 48 inches (width). Posters can be created utilizing Microsoft Power Point—slide format. The display should be stable and free standing on the provided table top. Each participant is responsible for providing backing for the poster. The display may include any objects the student wishes to exhibit, as long as they adhere to safety guidelines.

Standard Display Requirements:

A standard display should consist of one or more panels of information and any objects the students wishes to display within safety guidelines. The exhibit panels must be constructed to be stable and free standing.

The maximum size for a project is 48 inches wide by 30 inches deep (the distance from front to back) by 108 inches high (from floor to top of display, this includes the table and project). Tables will be provided and will not exceed a height of 36 inches. Failure to meet these requirements will result in disqualification. No tablets, iPads, cell phones or other electronic devices will be permitted. Internet access will not be provided.

4. Booth space will be assigned by the Superintendent upon arrival. Booths not meeting requirements nor following guidelines may be disqualified from the competition and/or removed from the display area.

5. Members may only enter in one category

6. Judging criteria for the Agriscience Project Display:

- ⇒ Creative ability/originality: 25 points
- ⇒ Scientific thought/goal: 25 points
- ⇒ Supporting evidence: 25 points
- ⇒ Booth appearance: 25 points

7. Category Awards:

1st—\$50 2nd—\$40 3rd—\$30 4th—\$20 5th—\$10 & Ribbons for Each

Overall Agriscience Display Champion—Award

Overall Agriscience Display Reserve Champion—Award

FFA AGRISCIENCE PROJECT DISPLAY SAFETY RULES

- If an exhibit becomes unsafe or unsuitable for display, it will be removed and deemed ineligible for any awards.
- Projects involving vertebrate animal subjects must conform with the following statement and have a fully completed non-human vertebrate endorsement form submitted: Experiments on live animals involving surgery, the removal of parts, injection of harmful chemicals and/or exposure to harmful environments are not acceptable at the National FFA Agriscience Fair. Live vertebrates may not be exhibited at the fair.
- Hypodermic needles, syringes, crystals [other than sucrose (sugar) and sodium chloride (salt)] and/or toxic and hazardous chemicals are prohibited from display. Students should substitute colored water, photographs, three dimensional models or drawings for chemicals and crystals.
- All necessary chemical glassware must be displayed in a stable manner. The items must be back from the edge of the table and may not be operational at any time.
- No wild cultures may be incubated above room temperature; no cultures taken from humans or other warm-blooded animals may be used. This includes, but is not limited to, skin, throat and mouth.
- Only plastic Petri dishes may be used in displays, and they must be sealed.
- Lasers may not be used in any exhibit.
- Dangerous and combustible materials are prohibited.
- No exhibit may have open flames. Any part of an exhibit that can get hotter than 100 degrees Celsius (boiling water temperature) must be adequately protected from

its surroundings.

- If an exhibit includes electrical wiring or devices, they must be safe. For voltages above 20 volts, special precautions must be taken. All connections must be secure and provide suitable protection against short circuits, etc.
- All wiring carrying more than 20 volts must be well insulated. Also, the connections must either be soldered or secured by UL listed fasteners. The wire used must be insulated adequately for the maximum voltage that will be present, and the wire must be of sufficient size to carry the maximum current you anticipate. Open knife switches or door bell-type push buttons in circuits using more than 20 volts may not be used.
- If the exhibit will be connected to 120 volt AC power (plugged into a wall outlet), fuses or circuit breakers must be provided to protect not only the exhibit, but also any others that may share the same sources of power. The power cord used must be UL listed for the voltage and current it will be carrying, and it must be at least 1.8 meters (6 feet) long. National FFA staff must be notified of the need for power at the time of certification so power can be ordered in advance.
- Exhibits requiring voltage in excess of 120 volts AC are not allowed.
- Electricity will be provided.