

AGRICULTURAL SCIENCE FAIR

TUESDAY, OCTOBER 5, 2010

SUPERINTENDENT

Dr. Kimberly Bellah

Entry deadline Tuesday, Aug. 25
Registration Tues., Oct. 5 .. 8:00 AM
Contest..... Tues., Oct. 5 .. 9:00 AM

This show will be governed by the General and Youth Rules of the State Fair of Texas and the following special rules.

Examples and criteria that are identified were taken from the respective categories of the Texas FFA Agri-Science Fair.

SPECIAL RULES

1. **Entry:** An entry fee of \$25 made payable to State Fair of Texas will be charged. Entries must be made through official State Fair of Texas entry forms. The entry must be postmarked by August 25, 2010. Participants are limited to one individual entry, team entries are not allowed.
2. **Entry Limitation:** Each student may enter only one project. There is no limit to the number of participants a chapter or club may submit.
3. **Eligibility:** Entries are limited to Texas 4-H, FFA and FCCLA members.
4. A project may be exhibited only one time at the State Fair of Texas and must have been researched and developed within one calendar year of the exhibition date. If the project is a continuation of a longitudinal (multi-year) study, the student's focus for research, display and presentation must center on the most recent year's data.
5. **Judging:** Judging is based on the criteria set forth on the judges guidelines located in the Printable Forms section of this premium list.
6. **Documentation:** Participants must submit the following information to Dr. Kimberly Bellah postmarked no later than August 25th to the address below.
 - a. Four copies of the entry's abstract
 - b. Four copies of the entry's research paper (stapled or bound copies)
 - c. One copy of Adult sponsor/safety assessment form
 - d. One Human Vertebrate Endorsement
 - e. One Non-Human Vertebrate Endorsement
 - f. One Hazardous Material Waiver Form
 - g. One Research Expense Form

These forms can be located on the Printable Forms Section of the website.

MATERIALS
TO BE
POSTMARKED
BY AUG 25!

All documentation, referred to in rule 5, must be mailed to:
Dr. Kimberly Bellah
Dept. of Agricultural Services & Development
201 St. Felix Street
Stephenville, Texas 76402

State Fair of Texas®
September 24-October 17

7. Contest Format:

- a. Participants are provided a 10ft X 10ft booth space to put up a table display and poster board explaining the project.
- b. Participants must be present at their booths during judging on Tuesday to explain their research/science project and answer questions to the public and judges
- c. Participants must provide all supplies including backing to mount poster board.
- d. Participants must provide their own extension cords and tape to safely secure cords and prevent tripping.
- e. There will be limited electrical supply provided by the show. Equipment should have an internal power supply for demonstrations.
- f. Table will be provided by the Fair.

8. Topics

Biochemistry/Microbiology/Food Science- Biology of microorganisms-bacteriology, virology, protozoology, fungi bacterial genetics, yeast. This area also can include chemistry of life processes-molecular biology, molecular genetics, enzymes, photosynthesis, protein chemistry, food chemistry, hormones, etc. Examples: Compare different yeast fermentation techniques for converting sugars to alcohol. Research resistance of organic fruits to common diseases. Examine techniques for controlling molds on bakery products.

Environmental Sciences- Study of pollution (air, water and land) sources and their control; ecology Examples: Study effect of agricultural chemicals on water quality. Compare water movements through different soil types. Examine effects of cropping practices on wildlife populations. Compare different irrigation systems for energy efficiency. Research uniform water quality standards.

Animal Science/Zoology- Study of animals-animal genetics, ornithology, ichthyology, entomology, animal ecology, paleontology, cellular physiology, animal husbandry, cytology, histology, animal physiology, invertebrate neurophysiology, studies of invertebrates, etc. Examples: Compare effects of different thawing temperatures on livestock semen. Compare effects of different nutrient levels on animal growth. Study effects of growth hormones on meat or milk production. Research new disease control mechanisms. Examine effects of estrous synchronization on ovulation.

Plant/Soil Science/Botany- Study of plant life-agriculture, agronomy, horticulture, forestry, plant taxonomy, plant physiology, plant pathology, plant genetics, hydroponics, algae, etc. Examples: Study effects of lunar climate and soil conditions on plants growth. Examine effect of substrate particle size on shiitake mushroom growth. Research effects of heavy metals such as cadmium on edible plants. Compare plant growth using hydroponics and conventional methods. Study effect of ultraviolet light on soil microbes.

Mechanical/Agricultural Engineering Science - Technology; projects that directly apply scientific principles to manufacturing and practical uses-mechanical, chemical, electrical, environmental engineering, etc. Examples: Develop alternate energy source engines. Investigate light energy sources. Test absorption media for plant materials. Compare various tillage methods for energy efficiency.

- 9. Awards:** Division Champions will receive a Banner, Trophy and Special Award. Reserve Division Champions will receive a Banner and Special Award. Grand and Reserve Grand Champions will receive a Banner and Trophy Buckle. Grand Champion will receive a scholarship.