AGRICULTURAL SCIENCE FAIR

ENTRY DEADLINE
DECEMBER 1, 2007

Superintendent
Dr. Kimberly Bellah

SATURDAY, FEBRUARY 2

7 am – 9 am	Arrive	SB
10 am	Judge	SB

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

1. **Entry:** An entry fee for each project entered is $20.00 and entries must be made on official San Antonio Stock Show & Rodeo Science Fair entry form. Participants are limited to one individual entry, team entries are not allowed.

2. **Eligibility:** Entries are limited to Texas 4H and FFA members and contestants must meet All Junior Show Rule Requirements.

3. A Project may be exhibited only one time at the San Antonio Stock & Show & Rodeo and must have been researched and developed within one calendar year of the exhibition date.

4. **Divisions:** There are 5 categories in which a student may enter.

5. **Judging:** Judging is based on the criteria set forth for the State FFA Science Fair Judges Guidelines Part I and Part II. These are found on the Texas FFA website (www.texasffa.org)

6. **Documentation:** Participants must submit the following information to the Dr. Kimberly Bellah postmarked no later than January 5th to the address below.
    a. 4 Copies of the entries abstract
    b. 4 Copies of the entries research paper
    c. 1 Copy of Adult sponsor/safety assessment form
    d. 1 Human Vertebrate Endorsement
    e. 1 Non-Human Vertebrate Endorsement
    f. 1 Hazardous Materials Waiver Form
    g. 1 Research Expense Form
    h. 1 Research, Competencies, and Knowledge Form

These forms can be located at www.texasffa.org

All documentation, referred to in rule 6, must be mailed to the address below:

Dr. Kimberly Bellah
Dept. of Agricultural Services & Development
201 St. Felix Street
Stephenville, TX 76402

7. Contest Format:

* Each student may enter only one project. There is no limit to the number of participants a chapter or club may submit.
* Participants must be present at their booths during judging on Saturday to explain their research/science project to the public and judges to answer any questions.
* Exhibitors are provided a 10ft X 10ft booth space to put up a table display and poster board explaining the project.
* Exhibitors must provide all supplies including table and backing to mount poster board.
* Exhibitors must provide their own extension cords and tape to safely secure cords and prevent tripping.
* There will be limited electrical supply provided by the show. Equipment should have an internal power supply for demonstrations.

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.

Zoology (Animal Science)- 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.

Botany (Plant/Soil Science)- 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.

Engineering (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.

Agricultural Science Fair Classes

1. Biochemistry/Microbiology/Food Science
2. Environmental Sciences
3. Zoology (Animal Science)
4. Botany (Plant/Soil Science)
5. Engineering (Mechanical/Agricultural Engineering Science)