

Synopsis of the Arkansas Corn & Grain Sorghum Promotion Board/ARFB & USDA/HSINP Future Scientists Program at USDA/ARS/Stuttgart, AR:

The two-day institute will be held and hosted for participating teachers at the USDA/Agricultural Research Service/Stuttgart Lab on July 23rd and 24th, 2014

20 Science Teachers are selected who are committed to introducing their students to the science of and employment opportunities available to them in Agriculture and who will make use of the USDA/ARS labs in Arkansas as educational resources (Booneville, Little Rock, Fayetteville). There are two foci:

- 1) The first is to spend about half of the time helping the teachers to learn about the life cycle of the corn earworm (*Helicoverpa zea*) and corn (*Zea mays*) and sorghum through lecture and hands-on work in the lab and field before they are shown how to grow the insect in the classroom and how to conduct simple experiments.
- 2) The other half of each institute is devoted to exposing the teachers to the work of some of the research units at the USDA/ARS/Stuttgart Rice and Aquaculture labs.

Benefits to teachers

- 1) \$200 travel stipend
- 2) Digital microscope
- 3) 20 hours of Prof. Development credit through TAMU recognized nationally
- 4) Free materials/links to USDA/ARS labs and scientists/technicians
- 5) Lunches during 2-day institute

School Visits

During the academic year, the Program Director visits each of the participating teachers in their schools at least once and works with their students for a day. Sometimes these visits coincide with growing the insects and sometimes not, because teachers decide when Insect and Plant (corn/sorghum) Life Cycles best fits into their curriculum in either the fall or spring semester. The Director sees the impact that the project has on students and supports the teachers in their efforts to promote hands-on, inquiry-based science.

Student Research Presentation Days

The Student Research Presentation Day is the culmination of the student and teachers' year-long involvement in the project. It is held at a mutually agreeable day at the end of the school year. Each teacher selects four or five students to present the work of the teacher's various classes on the project. Parents are encouraged to attend and many make the effort to accompany their child.

The format for the day that is held at the lab site:

- (a) Two hours of student presentations either through power point or poster presentations.
- (b) There is a 30 minute Scientist Question & Answer panel where lab research scientists or technicians field questions from the invited audience of students, parents, teachers, school administrators and scientists/technicians.
- (c) A catered lunch
- (d) Scientist led interactive tours of several research sites at each lab

Worms: kindly supplied free to schools from ARS insect unit in Stoneville, MS