

USDA FaST Program

(Faculty and Student Teams)

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Growing a Better Tomorrow, Together!



Building Agricultural & Environmental Research Capacity at HSI's

Award: 2008-38422-19189 Amount: \$250,000
 Dates: Jul 15th, 2008 – Jul 14th, 2010

About the FaST Program

- FaST dedicates itself to **growing** the relationships between students and faculty
- Growing** the relationships between FaST teams and leading researcher labs, and
- Growing** the relationship between the USDA and HSI universities
- Together** we can grow a better tomorrow!

OBJECTIVES

1. **Advance the retention** of underrepresented students and faculty in these teaching and research programs
2. **Address issues of particular concern** in the USDA through the enhancement of graduate level teaching and research programs in a variety of disciplines at HSI's
3. **Function as an outlet** for the transfer of information on completed and ongoing research
4. **Foster and expand links** between NRI facilities and the USDA to Hispanic faculty and graduate students and HSI's with benefits to the state and regional location of the HSI's.
5. **Create a link** between prospective employers and students

Mission Statement

TO address the demonstrated need of training and preparing Hispanic scientists to fill key science positions in the agricultural and environmental fields

BY bringing the country's best researchers together with students and faculty from underrepresented groups to address current USDA research concerns

WHILE fostering the goal of an increased pool of Hispanics who pursue careers in these areas, resulting in increased capacity both at the USDA and Hispanic-Serving Institutions (HSI) universities.

The Mechanics of FaST

WHO?

Any faculty and students who work/attend any officially designated HSI university or college.

Teams will consist of one faculty member and two students, (any combination of upper division undergraduates, Masters, or PhD students).

Host facilities will include labs and research stations at NRI-grantee institutions that have proven records of accomplishment in mentoring researchers from under-represented groups.

WHAT?

To place research teams in selected National Research Initiative (NRI) grantee facilities around the country to conduct research related to key objectives of the U.S. Department of Agriculture

Teams can be matched to **any** current USDA NRI (National Research Initiative) program of their interest.

Faculty will receive a stipend of **\$12,500** and students **\$6000** each for the summer.

WHY?

8% - Hispanics continue to lag behind other demographic groups in the United States in obtaining advanced degrees

7.16% - Percentage of Hispanics among all science graduate students.

5.17% - Percentage of Hispanics among all Agricultural graduate students

2.17% - Percentage among all Hispanic science graduate students who are in Agricultural sciences.

The nation has an ever-increasing need for well-trained, qualified professionals in natural sciences, technology, and social sciences capable of meeting needs in the crucial areas of food, agriculture, and natural resource management.

Further, as the Hispanic population of the United States grows, it will become increasingly important for members of this group to be represented in producing knowledge and setting policies related to these important areas.

WHEN?

Teams will be chosen for a ten week placement for the Summer of 2009 and Summer 2010

WHERE?

Teams can choose from any domestic USDA participating research station or lab.

Activities of FaST

The FaST program's unique strength

FaST facilitates participation of Hispanic collaborative teams from a multitude of applicable disciplines ranging from agricultural science, biology, chemistry, environmental science, and ecology to economics and the social sciences focusing on rural issues.

It builds institutional capacity and capability across many disciplines and across the country at many universities.

The FaST program has the potential to expand to a nation-wide pool of applicants and placements.



Andie Lueders collecting field data to better understand the causes and consequences of weed invasions at Zumwalt Prairie Preserve in northeastern Oregon. Photo by Bryan Endress

HSI Educational Need Areas Addressed

- (B) Faculty Preparation and Enhancement for Teaching
- (E) Student Experiential Learning
- (F) Student Recruitment and Retention

1. **Participate** in a 10-week research collaboration at a state of the art NRI-grantee facility.
2. **It is expected** that at least one peer-reviewed scientific publication will result from each of the USDA FaST teams, to be presented at a national conference.
3. **Each team** will submit a report to the program coordinator outlining the capacity-building outcomes of their participation in the program
 - **brown-bag and other research-sharing activities at the home institution,**
 - **ongoing collaboration with the host lab, applications submitted for external funding,**
 - **new "best-practices" implemented in home-institution labs.**
4. **Faculty** will demonstrate impact on their course curriculum.



David Knochel's Ph.D. study sites, where individual spotted knapweed plants were subjected to several levels of herbivory by root- and seed and foliage feeding insects, and by varying levels of plant competition

Institutions/Agencies Involved

- **Any HSI eligible institution**, as certified by the Hispanic Association of Colleges and Universities (HACU), can put forth a FaST participant.
- **Any National Research Initiative (NRI) grant program** can serve as a host institution/lab.
- **University of Texas at San Antonio (UTSA)** will administer the program.
- **USDA Collaborator:** Michael Bowers, National Program Leader - Ecology, CSREES.

Evaluation Plan

- Key components will include:**
- **Impact on Scholarship**
 - **Impact on Institutional Capacity**
 - **Impact on Individual Capacity (professional development)**

Expected Impact/Beneficiaries Students

- vital training and mentorship
- professional networking opportunities
- culture of empirical research and grant development
- opportunities to present papers at national conferences and publish research.
- provide critical elements in the development of their Vitae and/or resumes
- graduate as qualified and highly skilled agricultural and environmental researchers

Faculty mentors

- enhance own research by working with state-of-the-art equipment and resources not available at their home institutions
- expand their own research collaborations
- enhance their student advising and mentoring skills

Participating HSI's

- research programs and training capacity strengthened
- faculty impact to agricultural and environmental education will be reflected in their teaching methodologies and course content, in research publications, and of possible new course offerings.
- faculty participants will bring current and relevant USDA key research objectives directly into today's classrooms.

Host labs and field stations

- will advance their own research projects with the aid of HSI guest scientists
- Strengthen collaborative ties to HSI institutions
- bring underrepresented Hispanics directly into the intellectual endeavors of the USDA

Benefits of FaST

USDA Priority Need Areas Addressed:

- (1) Strengthen institutional educational capacities
- (2) Attract and support undergraduate and graduate students from underrepresented groups
- (3) Facilitate cooperative initiatives between two or more Hispanic Serving Institutions, or between Hispanic-Serving Institutions and units of State government or the private sector



Susan Mortenson (Ph.D. student at University of Nevada, Reno) next to an invasive tamarisk shrub (*Tamarix ramosissima/chinensis* hybrid) on a sandy terrace along the Colorado River as it flows through Grand Canyon National Park.