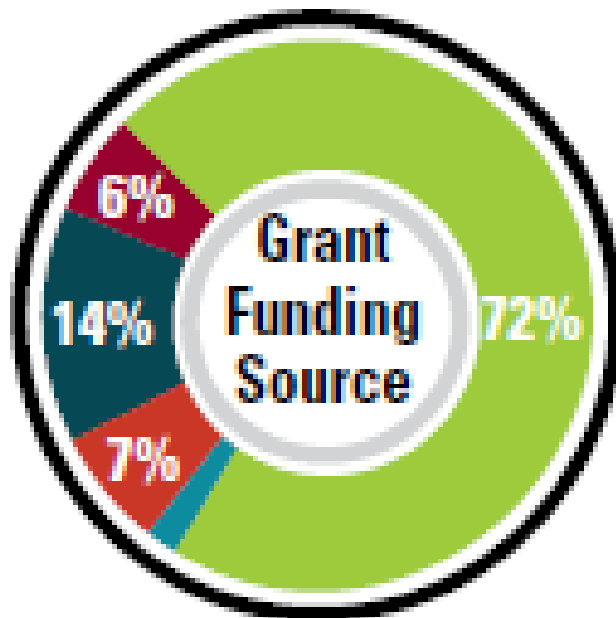


Best Practices – Internal Grant Programs for Hatch and Hatch-Multistate Funds

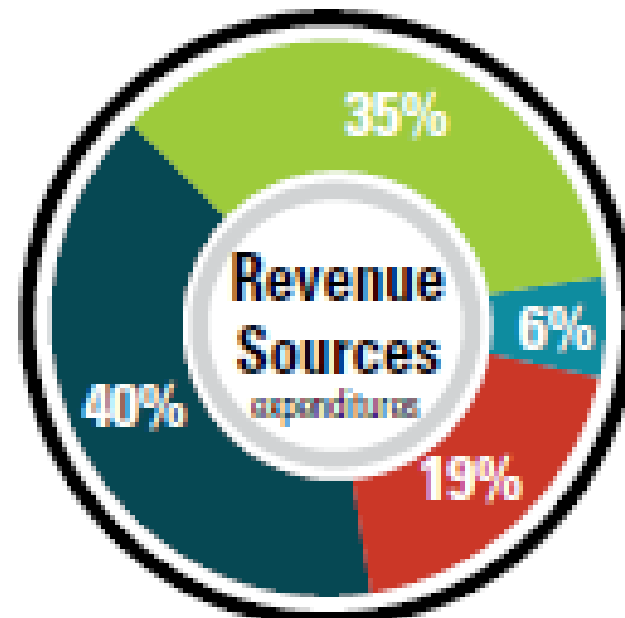
Wes Burger, Associate Director

*SAAESD Spring Meeting
April 3, 2014*

Expenditures



● federal ● foundation ● non-profit
● industry ● state government



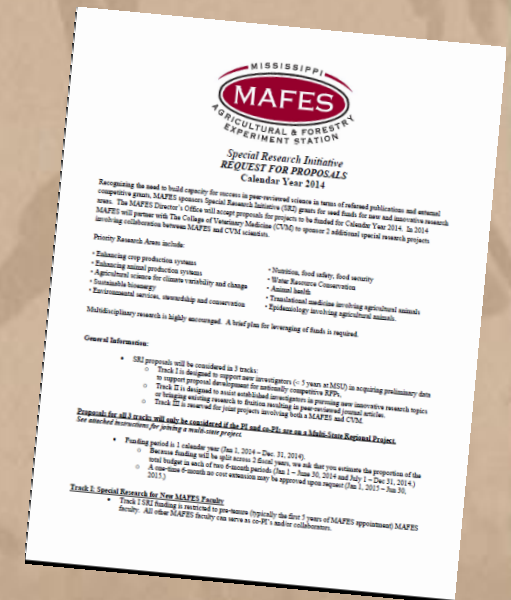
● state ● federal ● grants/contracts
● other (sales and designated)

Research Priorities



Strategic Research Initiative

- Objectives
 - Increase participation in Multistate projects
 - Focus research activities on priority arenas
 - Support pre-tenure faculty
 - Collect pilot data/proof of concept for competitive grants
 - Build collaborations
 - Support graduate research



SRI Process

- Distribute RFP in August
- Web-portal on line submission process – Oct

FY 14 SRI Required Documents Complete 11/22/2013

ID	4	pi_name	pi_fname	pi_dept				
	Kroger	Robert	Wildlife, Fisheries and Aquaculture/080300					
title								
Quantification of Efficiencies related to Tailwater Recovery Systems								
multistate	Member	multistate_expiration_date	ms_cris_number	MS_crisexpiration	ms_cris_submitted	ms_cris_approved	proposal_bud	get_reviewed
W2082	<input checked="" type="checkbox"/>			09/30/2015	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
valid_hatch_projectnumber	hatch_expiration_date	budget_transfer_complete						
MIS-033070	6/30/2014	<input type="checkbox"/>						
Review Notes								
ID	10	pi_name	pi_fname	pi_dept				
	Tomaso-Peterson	Maria	Biochemistry, Molecular Biology, Entomology and Plant Pathology/011900					
title								
Novel ectotrophic root-infecting (ERI) fungi of bermudagrass putting greens: The ERI paradigm shift								
multistate	Member	multistate_expiration_date	ms_cris_number	MS_crisexpiration	ms_cris_submitted	ms_cris_approved	proposal_bud	get_reviewed
S1051	<input checked="" type="checkbox"/>			09/30/2015	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
valid_hatch_projectnumber	hatch_expiration_date	budget_transfer_complete						
MIS-213070	12/31/2014	<input type="checkbox"/>						
Review Notes								

Friday, November 22, 2013 Page 1 of 39

SRI Priorities

- Priority Research Areas include:
 - Enhancing crop production systems
 - Nutrition, food safety, food security
 - Enhancing animal production systems
 - Water Resource Conservation
 - Agricultural science for climate variability and change
 - Animal health
 - Sustainable bioenergy
 - Translational medicine involving agricultural animals
 - Environmental services, stewardship and conservation
 - Epidemiology involving agricultural animals.

SRI Tracks

- Track I - new investigators (< 5 years at MSU) in acquiring preliminary data to support proposal development for nationally competitive RFPs,
- Track II -to assist established investigators in pursuing new innovative research topics
- Track III is reserved for joint projects involving both a MAFES and CVM.

SRI Review Process

- Peer-review
 - Each proposal reviewed by 4 reviewers from a pool of 10 Dept Heads, and Associate Directors/Deans
 - Rated on 15 criteria in 4 areas
 - Goals and Objectives
 - Project Design
 - Project Management
 - Products and deliverables

Mississippi Agricultural and Forestry Experiment Station
2014 Strategic Research Initiative
Criteria for Proposal Evaluation

Project ID:
Proposal Title:
Principal Investigator:
Reviewer: Burger

For each of the numbered criteria described below, please rate the proposal using the following scale. Reviewers should make an entry only in clear boxes.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Review Criteria	Score
Purpose and Goals	
1. The proposal clearly states the goals and objectives of the research.	
2. Addresses identified research priorities outlined in the SRI RFP.	
3. The project addresses MAFES/CVMDAPV/MMSU research priorities.	
4. The proposal provides clear and achievable timeline for accomplishment of objectives.	
Purpose and Goals Summary	
Soundness of Design	
5. The project adheres to sound science in its design and implementation. (based on a-e criteria)	
a. Clearly stated hypotheses or estimable parameters	
b. Rigorous experimental or sampling design	
c. Manipulative	
d. Replication, randomization, and controls	
e. Appropriate statistical procedures	
6. Project has reasonable likelihood of achieving objectives.	
7. Budget consistent with objectives, scope, and methods.	
8. The project identifies adequate facilities or land base on which to execute project objectives.	
Soundness of Design Summary	
Project Management	
9. The project has clear milestones.	
10. The project staff has experience and technical expertise to conduct the work.	
11. The budget is reasonable and shows strong leveraging or potential for generating funds from other sources.	
12. The project shows clear cooperation among scientists, USDA personnel, producers, and/or other partners.	
Project Management Summary	
Project Products	
13. The project will develop knowledge, skills and/or technologies that have a high probability of being transferred to end users (commercial applications, producers, scientific community).	
14. The project results will be broadly applicable and will motivate other producers to implement the technology.	
15. The project has a high probability of producing scientific products (peer-reviewed journal articles) and extension/outreach reach products.	
Project Products Summary	
Overall Project Score – Mean Score from Above 4 categories	
Additional comments regarding merit, relevance, and budget request	

SRI Summary

- ~ 70 – 80 submissions annually
- Fund 25 – 30 (30 – 40% funding rate)
- Cap of \$50,000/project
- 1 project/PI
- Funding \$1.2 - \$1.5 Million/yr
- 12-18 month performance period

SRI Reporting



2013 MAFES SRI Project Report

Title: Rapid Field Detection of Phytopathogenic Fungi in Agricultural and Biofuel Crops
PI: Darrell Sparks

1. Objectives.

Our primary objective was to evaluate the feasibility of using handheld Fourier Transform Infrared Spectroscopy (FT-IR) as an onsite field diagnostic tool for determining the presence of phytopathogenic fungi that cause severe economic damage to corn and soybeans.

Specific Goals/Timeline: 1) Develop an Agilent ExoScan Phytopathogen Detection Method (Stage 1) 2) Chemometrics (Stage 2) 3) Validate Method on Greenhouse Grown Pathogen Infected Corn and Soybean Plants (Stage 3). 4) Take the Validated Method into the Field (Stage 4). 5) Present and Publish Data.

2. New Accomplishments toward objectives.

The monitoring of aflatoxin production in cornfields is a crucial process that consists of collecting samples for analysis in a lab separate from the field. Our current research work consists of bringing the lab to the field using a portable mid FT-IR, Fourier transform infrared, system that could detect and possibly quantify aflatoxin on the cob.

To accomplish this, we first analyzed the fungus that causes aflatoxin contamination, *Aspergillus*. From the analysis, using a prep-free method, we analyzed both toxicogenic and non-toxicogenic strains of *A. flavus* and *A. parasiticus* as well as other fungus species, including two soybean pathogens *Macrophomina phaseolina* and *Thielaviopsis basicola*, as well as *Volvetella buxi*. From the analysis, we were clearly able to differentiate all species of fungus, as well differentiate between the toxicogenic and non-toxicogenic strains of *Aspergillus* as shown in Figure 1.

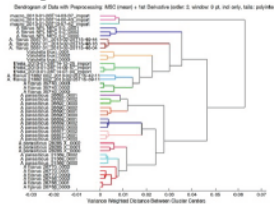


Figure 1: Differentiation of fungi using portable FT-IR



Special Research Initiative 2012 Progress Report

Project Title:

PI:

Department:

Project Summary (Issue/Response)



SRI Outcomes

- Support 20 – 30 graduate students
- Publications
- Competitive proposal submissions and awards
- Increased MSRP participation

Multistate Travel Awards

- Travel funds to participate in MS annual meeting
- Member of approved MS project
- \$1500/meeting
- Offer up to 30 awards/yr.
- Fund 12-20



MAFES Multistate Project Travel Awards
Request for Proposals
Calendar Year 2013/2014

To encourage participation by MSU scientists in multistate CRIS projects, the MAFES Director will annually reserve a pool of resources to support costs associated with travel to Multistate Regional project meetings. Up to 30 travel awards will be made annually to support travel expenses not to exceed \$1500/meeting for scientists formally participating in a CRIS multistate project and travelling to the annual multistate project meeting.

Requests will be made to the Director's office, through the faculty member's department head. Multistate Travel Award proposals can be submitted throughout the annual cycle and will be awarded on a first-come basis, subject to confirmation of participation in the Multistate Project.

The request should include the following information:

Scientist Name:
Department name/org:
Multistate CRIS Project Number/Name:
Date of Meeting:
Location of Meeting:
Estimated Cost:
Brief Justification:

Following award notification, travel approval should be completed through standard practice within the department. Please have your department travel coordinator work with Ms. Teresa Goodwin to ensure the appropriate multistate CRIS activity code is used on the travel form. After the meeting, the completed travel form should be sent to the Director's office (attn: tbryan@cfr.msstate.edu) where an account number will be provided and submitted for payment.

Multistate Travel Award requests should be sent to:
Wes Burger
Associate Director, Mississippi Agricultural and Forestry Experiment Station
wburger@cfr.msstate.edu

Include subject line: MAFES Multistate Project Travel Awards

MAFES Multistate Travel Awards

8/15/2013