



**LOUISIANA STATE UNIVERSITY AGRICULTURAL CENTER**

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Donna,

The authors of S\_temp 2018 want to thank the reviewers for their time and efforts in the review of this document. We appreciate their thorough review and overall assessment to continue the project after revising the proposal. We have incorporated all of the appropriate changes suggested for the proposal. Specific responses to their remarks are listed on a separate form. I hope that the writing committee has addressed the reviewers' comments in a satisfactory manner. Their suggestions have served to greatly improve the proposal.

Thanks for all your time and effort in this important process. If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads "B. Rogers Leonard". The signature is written in a cursive style and is enclosed in a thin black rectangular border.

B. Rogers Leonard  
Associate Vice President for  
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## **Author's Responses to the Proposal Reviewer's Suggestions**

### **Reviewer 1**

All of this Reviewer's suggestions were editorial and his suggestions were addressed in the revised document.

### **Reviewer 2**

1) The objectives have been consolidated into a single primary task with a series of projects supporting overall efforts. They also were clarified to demonstrate the intentions of the workgroup. These scientists represent a broad range of commodities with different pests, so one would expect the members to focus on specific issues in their individual cropping or natural environments. The real advantage is in the sharing of information that can be adapted to support pest management in other systems. It is comprehensive, but there is overlap in a number of areas with regard to the entomopathogens.

2) Additional details have been added to milestones, especially for Objectives 1c and d. New milestones were added to Objective 2. Specific milestones for the latter years of the projects depend on the outcomes of the current research, but some milestones have been updated with the new information the group has since the proposal was first submitted. Considering the importance of expanding microbial control research and outreach to the IPM practitioners, Objective 2 and its milestones have been revised for information transfer at both professional and extension meetings.

### **Reviewer 3**

This reviewer did not add any suggested revisions to the document.

### **Reviewer 4**

1) The document has been carefully reviewed and we hopefully have eliminated grammatical errors in the text.

2) The section on "Related, Current, and Previous Work" has been thoroughly revised and corrected with the better estimates of productivity in the previous project.

3) It was not clear in the proposal, but the participants in the previous project have shared resources and information. It is highly likely that this scientists would convene as group and share results without a multi-state project. It is difficult to place a value on the efficiency improvements that have occurred just discussion and sharing information among the members of this group. Another important reason why some of the projects did not seem to have multi-state collaboration was that crops, target pests, and regional needs and management strategies vary widely and the participating scientists are collaborating more on exchanging information and advising each other on improving their projects.

In several instances, there is evidence of collaboration among state partners. Workgroup members have been exchanging their research results and ideas at the annual meeting and applying the new strategies in their respective states where appropriate. One avenue for outreach of results for the previous project was through the microbial control symposia at the Entomological Society of America annual conferences that bring together scientists, industry partners, and students to promote microbial control research and education. Several members of the workgroup participated in an exclusive microbial control extension event – 2<sup>nd</sup> Ag Innovations Conference: Microbial Control on 13 August, 2017 in La Jolla that was attended by more than 100 scientists, regulators, pesticide industry partners, growers, pest control advisors, and Master Gardeners, also sharing the results of the previous project.

For a specific example of research collaboration, endophytic work conducted in California has been evaluated in Montana, work conducted in Georgia to enhance the longevity of entomopathogens is being considered in California, microsclerotia-based granules developed in Illinois were evaluated in Montana and other states. In addition, the University of California Cooperative Extension, University of Arizona, and Oregon State University have recently submitted a proposal for a NIFA-AFRP grant to conduct microbial control research for managing aphids in alfalfa. Publications that represent collaboration among the members of the workgroup (**members – highlighted**) include:

- a. Sampson, B., Miller-Butler, M., Smith, B., Adamczyk, Jr., J., Mann, T., Layton, B., Cowles, R., Li, D.-W., and **Dara, S.** 2017. Spotted wing drosophila flies killed by a fungal disease in Mississippi. *Mississippi Vaccinium Journal* 6 (3):4-6.
- b. **Dara, S. K., Goble, T., and Shapiro-Ilan, D.** 2017. Leveraging the ecology of invertebrate pathogens in microbial control. *In Ecology of invertebrate diseases*. Eds. A. Hajek and D. and Shapiro-Ilan. Wiley: 467-491.
- c. **Shapiro-Ilan, D., Arthurs, S., and Lacey, L. A.** 2017. Microbial control of arthropod pests of orchards in temperate climates. *In Microbial control of insect and mite pests: from theory to practice*. Editor L. A. Lacey. Academic Press, pp. 253-268.
- d. **Solter, L. F., Hajek, A. E., and Lacey, L. A.** 2017. Exploration of entomopathogens. *In Microbial control of insect and mite pests: from theory to practice*. Editor L. A. Lacey. Academic Press, pp. 13-26.

4) As suggested by the second reviewer, the structure of the objectives was changed to reflect similar research interests, but work in different systems as components of the same objective. The research results for the different cropping and natural systems has provided opportunities to transfer technology to other systems. This information is shared at the annual project review meetings and at the professional symposium.