Progress Report

Updating University of Missouri Soil Test Recommendations

Principal Investigator: John A. Lory  Co-investigators: Peter Scharf, Manjula Nathan,
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The objectives of this project are to:

- Update and revise University of Missouri Soil Test Recommendations and the supporting publication “Soil Test Interpretations and Recommendations Handbook.”

This project supports a part-time position to provide support to faculty developing proposals for changes to MU soil test and fertilizer recommendations. The proposal stated the work of the research specialist will include performing literature reviews, summarizing data from completed experiments and editing proposals. The funds were not to be used to undertake new lab or field research.

2010 Accomplishments

- Initial approval of new soil test P and K buildup equations by the soil fertility working group.
- Preliminary proposal and discussion of reduced critical values for soil test P and K on fields with site-specific management of fertilizers.
- Presentation of approved changes in crop nutrient removal values and proposed new soil P and K buildup equations at the 2010 MU Crop Management Conference.
- Supplemental work on completing nutrient removal values for agronomic crops including a chapter in the 2010 Missouri Soil Fertility and Fertilizers Research Update.

Remaining Objectives

1. Finalize changes to the equation used to calculate soil test build rates for P and K.
2. Finalize proposed changes to the critical values used for P and K for row and forage crops.
3. Develop and approve proposal for update to row crop nitrogen recommendations.
4. Finalize and approve proposal for update to forage nitrogen recommendations.
6. Develop a list of priority research projects to improve MU soil test and fertilizer recommendations.

This will complete an overhaul of the MU soil test and fertilizer recommendations. Upon completion of the project arrangements will need to be made to implement the approved changes in the software used by the Missouri Soil Testing Laboratory to generate soil test reports.

Proposed Budget

In 2021 we spent approximately 20% of the total budget on Vicki Hubbard’s activities in support of the project. We propose to spend the remaining 43% of project funds in 2021 for her support in completing the project.

Salary: $15,061
Benefits: $6,455
Total: $21,516