

Response to comments from MRC committee for multistate project SDC345

We are very thankful to the committee for their inputs and recommendations for our project. We have thoroughly modified the proposal according to the suggestions from the committee. A detailed response to each of the comments from the reviewers is given below.

Comment 1: The Southern Multistate Research Committee (SMRC) has completed its review of the SDC345 proposal. The writing committee is to be commended for putting together a strong proposal. Certainly, the proposed project has a regional and national need.

Response: We thank the committee for their time to review our proposal and for finding our proposal valuable.

Comment 2: At present, the primary concern is with the formatting of the methods portion of the project. The methods section reads more as an outline than a proposal. The overuse of sub-headings causes many of the methods to be no more than a couple of sentences. It reads as if each researcher added an objective/method rather than a concerted effort to build a unified proposal that links from section to section. The key aspect of a multistate project is the unified approach that will be utilized across the project. Removal of the "sub-objectives" may be the way to build a more unified proposal.

Response: We thank the committee for the suggestion. We have thoroughly modified the methods section of the proposal. Instead of having sub-objectives, we have now combined the products or processes being developed and described the methods for the products or processes. The major sections and sub-sections in the methods part in the revised proposal are given below.

- 4.1. Developing natural, regenerated cellulose and protein and synthetic fibers from the agricultural byproducts and coproducts
- 4.2. Crosslinking and imparting functional properties to the fibers
 - 4.2.1. Crosslinking
 - 4.2.2. Antibacterial properties
 - 4.2.3. Fire resistance
- 4.3. Characterizing the structure and properties of the fibers
- 4.4. Processing the biofibers into textiles
- 4.5. Completely biodegradable composites from the agricultural byproducts and coproducts
- 4.6. Chemical modification of biopolymers for thermoplastic applications

4.7. Medical applications of the Biofibers

4.8. Biodegradable non-woven mulches

4.9. Dye waste water treatment

4.10. Evaluating the economics of the processes and products developed

Comment 3: The writing team does not discuss intellectual property. Given the desire of the proposal to develop outputs in the form of products, intellectual property could be a concern at some point.

Response: We had discussed intellectual property in section 5.2, page 14,

The new products and processes developed will be protected for intellectual rights at the institution(s) that collaborate with each other. Patent disclosures will be submitted to the respective universities for patent considerations. Students and other personnel working on the project will also be included in the patent according to the rules at the respective institutions.

and in section 7, page 15

“Technologies developed in this project will be made available to the textile, bioproduct, biomaterial, non-woven and other related industries for technology transfer and licensing. All participating institutions have units that look after the IP and their licensing.”