



1785 N. Fine Avenue
Fresno, CA 93727
Telephone: 559 / 252-0684
Fax: 559 / 252-0551

March 3rd, 2017

Ms. Ashley Peters
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114

SUBJECT: Comments regarding the Cotton section of "Nitrogen Concentrations in Harvested Plant Parts – A Literature Overview" Report

Dear Ms. Peters:

On behalf of the California Cotton Ginners and Growers Association (CCGGA), we would like to take time today to provide comments on the "Final Report of Y-to-N Removed Conversions for Central Valley Crops" specifically, the report titled "Nitrogen Concentration in Harvested Plant Parts – A Literature Overview" prepared by Dr. Daniel Geisseler. We represent the cotton industry on both Legislative and Regulatory issues that pertain to the growing and processing of cotton in California.

Initially, we want to express our concern that this report was not properly vetted amongst the cotton industry prior to submission. Upon review of the report, CCGGA has concerns over the numerical values associated within the report of nitrogen that is removed from the field during harvest. Our association feels that data values generated from the growing of cotton in various other countries cannot be a reliable comparison to the conditions that are experienced in California. California typically experiences substantially higher yielding cotton as compared to any other state in the U.S., let alone the production of cotton in other countries. This has the high potential to result in higher nitrogen values being removed from the field during harvest. CCGGA understands that available data was limited in the establishment of these values; however, we would like to provide the most specific California cotton

cultivation data as possible.

Another concern is with respect to the total amount of material that is removed during the harvesting process. Based on the growing season, harvested cotton can contain significantly more fragmented cotton plant material (hulls, sticks, leaves) as well as motes. Cotton motes, attributed to the Upland variety of cotton, are underdeveloped fibers which are separated from longer fiber during the ginning process. Higher values of these two cotton by-product materials would result in higher values for nitrogen removal in cotton harvesting. With California achieving higher yielding cotton acreage, there is a potential for higher nitrogen removed values from fields in the form of lint, seed and trash. While limited data exists on the average amount of nitrogen that is removed in the form of motes and gin trash, we are working in coordination with the State Cotton Specialist at UC Cooperative Extension, Dr. Robert Hutmacher, to conduct further studies on this specific point. Dr. Hutmacher has also co-authored several of the studies utilized in Dr. Geisseler's report.

The final issue that we wanted to address revolves around the nitrogen removed values associated with the cultivation and harvesting of the Pima variety of cotton. In California, the Pima variety of cotton represents 75% of the total planted acreage. Dr. Hutmacher has conducted studies specifically on the average Pima nitrogen removed values, and will be providing values from those studies to Dr. Geisseler. In the research, Pima varieties had similar nitrogen removed values as the Acala varieties. Our primary concern with this data being provided to the State Water Resources Control Board is that this data will be used as a threshold for nitrogen removal, and thus influence the application of nitrogen through further regulation in the future. In the work our Association is coordinating with Dr. Hutmacher, we will be including trash and mote values. We hope to work with Dr. Geisseler to update the values associated with California cotton production within the report.

In summary, our Association understands that resources and studies displaying data on California cotton production and nitrogen removal was limited in developing this report. The purpose of this comment letter is to point out some of the differences that we see in this report, and what has been provided to us in previous studies. We aim to work directly with the authors in the hopes of providing pertinent and accurate data for the production of cotton within California. We will work to update the information and values used in Dr. Geisseler's report to display the data that is truly indicative of California cotton production. We have observed through our own specialist's research that values for Nitrogen Removal in Pima cotton are similar to that of Acala. Lastly, we hope to display more concrete findings on the potential for further Nitrogen Removal through the harvesting process, specifically in mote and trash removal from higher yielding cotton.

We thank you for the opportunity to provide feedback and comment on this report. If there are any questions that I can be of any assistance on, please feel free to contact me at chris@ccgga.org or by phone at (559)-252-0684.

Thank you,

A handwritten signature in black ink, appearing to read "Chris McGlothlin". The signature is fluid and cursive, with the first name "Chris" written in a larger, more prominent script than the last name "McGlothlin".

Chris McGlothlin

Director of Technical Services, California Cotton Ginners and Growers Association