



COTTON INCORPORATED

June 6, 2011

Dr. Eric Young , Executive Director
Southern Association of Agricultural Experiment Station Directors
NCSU
1730 Varsity Drive, Suite 110
Raleigh, NC 27695-7561

Dear Dr. Young:

I am writing to request funding for the new genomics, genetics, and breeding database currently being developed for the larger cotton community by Dr. Dorrie Main and her team at Washington State University. This is a comprehensive database that will benefit all cotton researchers and ultimately growers across the 17 states where cotton is grown. Allow me to provide more details about the community's needs and the funding USDA-ARS and Cotton Incorporated have already committed.

Currently there are two cotton databases widely used by the community, CottonDB and Cotton Marker Database (CMD). CottonDB has been 100% funded by USDA-ARS for over 20 years but is limited by software code which is not conducive for many current web based functions. CMD is an eight year old database funded 100% by Cotton Incorporated which primarily handles molecular marker information. These two database budgets, summed together, are supported with approximately \$200,000 of annual funding. Curators of each are already in the process of working with Dr. Main to integrate existing data into our new database so the transition is seamless to users. CottonDB and CMD will then be wound down at year end. Several years ago the larger cotton community began discussion of having one common database which would contain all of the data housed in our current databases, but more importantly, serve as a platform for integrating new genomic sequence information into useful breeding tools for cotton breeders. After many discussions with users of databases in numerous other crops, we selected a template developed by Dr. Main. Her model was recently selected by Mars Inc. to handle the genomic, genetic, and breeding data for the cacao community, an effort being funded solely by Mars who could have selected virtually any option on the market. I have spoken to research leaders in the cacao community and they speak highly of the deliverables Dr. Main's team is delivering on time and within budget. In short, her effort encompasses integrating public and private research websites, genomic sequence data, consensus genetic maps, large scale phenotypic data, and ultimately development of a breeder's toolbox.

The required budget to fund our new database is \$160,000 per year. This is an annual savings of \$40,000 when compared to the two databases currently supported and will be a significant improvement over our current products. Through a cooperative research agreement between USDA-ARS and Cotton Incorporated, we have agreed to support this effort with the following: \$50,000/year from USDA-ARS and \$85,000/year from Cotton Incorporated. As you can see, USDA-ARS and Cotton Incorporated have committed to cover 84% of the required budget. We are asking for annual support of \$12,500 from the Southern Association of Agricultural Experiment Station Directors. If SAAESD agrees to support us, I will invite the USDA-ARS Southern Area Directors to do likewise. Besides providing much needed financial support, funds from the Southern Association of Agricultural Experiment Station Directors and the USDA-ARS area directors would demonstrate a united sponsorship of the database among the entire public sector cotton research community.

This new database is critical for the entire cotton community to address current and future issues facing cotton growers. In Fall of 2011 a reference sequence of the diploid D genome, a progenitor of tetraploid upland cotton, will be published. The other progenitor, the diploid A genome, is expected to follow in Summer of 2012. Progress is already underway to sequence the upland AD genome. Growers will benefit immensely once this fundamental sequence data is available to the entire research community, especially breeders who work to translate this data into tangible improvements of important phenotypic traits such as lint yield, fiber quality, and abiotic/biotic stress tolerance.

Please contact me if you have any questions about our request or the database plans, deliverables, or funding.

Sincerely,



Don C. Jones, Ph.D.
Director of Agricultural and
Environmental Research

