

EVALUATION OF THE CMD PANEL
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Like other major crops, such as soybean and corn, cotton now has a coordinated public marker database (<http://www.mainlab.clemson.edu/cmd/>) due to the initiative of Cotton Incorporated (CI) and concerned cotton scientists. The USDA-ARS Mid South Area Genomics Laboratory in cooperation with scientists from the Crop Genetics & Production Research Unit at Stoneville, Mississippi were the first to respond to this initiative by screening and evaluating over 700 DNA molecular markers. To facilitate comparison of marker data among different groups, a standardized set of genomic DNA from a range of cotton varieties and wild species was selected to use for the screening. The DNA set is being maintained centrally by John Yu at the ARS Unit at College Station, Texas, so that future screening projects by other groups can all use the same testing set. Simple Sequence Repeat (SSR) markers, from a variety sources, were screened on the standardized CMD DNA panel. Protocols were developed to automate the procedures and minimize the amount of primer, DNA and PCR reaction components required. The data was provided to the Clemson University Genomics Institute (CUGI) which incorporated it into the Cotton Microsatellite Database (CMD). The database allows scientists to search for markers that may be useful for their individual experiments.