

**FUTURE INVOLVEMENT OF THE
AGRICULTURAL RESEARCH SERVICE IN GIN
PROCESS CONTROL**

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Abstract

The Agricultural Research Service (ARS) has developed a computerized cotton ginning process control system (CCGPCS) to optimize fiber quality and profits for the textile mill and farmer. Several related patents are licensed to Zellweger Uster for commercialization of the technology. The ARS will continue to participate in refining and expanding the technology for the benefit of the cotton industry.

Specifically, the ARS will: 1) implement the moisture measurement component of the technology during harvesting and moduling thereby enabling farmers to make more precise risk assessments regarding moisture (this information will also aid the CCGPCS in optimization of gin processing), 2) update current mathematical relationships relating fiber quality and machine performance, 3) evaluate offline and online measurements of factors such as neps, short fiber content, seed-coat fragments, micronaire, etc., for integration with the CCGPCS, 4) expand the CCGPCS to include stripper-harvested cotton, 5) improve bypass valves, 6) develop method to assess the moisture of the bottom of a module, 7) develop new cleaning machines to achieve reduced cleaning and fiber damage, 8) implement online measurement of entomological sugar and develop mitigation techniques, 9) develop method to measure the softness of cottonseed, and 10) develop method to measure seed cotton moisture.