The saw-type lint cleaner improves the appearance of ginned lint by removing foreign matter, motes, cottonseed, and other undesirable material. Unfortunately, it also removes about as much good fiber as it does undesirable material. One stage of lint cleaning typically removes about 20 pounds of material. An experimental lint cleaner was developed and patented to reduce the loss of good fiber and maintain fiber quality in the bale. Two studies were conducted to validate the operational characteristics of the experimental lint cleaner—one at the USDA-ARS Cotton Ginning Research Unit at Stoneville, MS and another at a commercial gin. Results at the research gin indicated that about 6 pounds of additional good fiber was retained by the experimental lint cleaner when compared to a standard lint cleaner with no significant difference in High Volume Instrument (HVI) or Advanced Fiber Information System (AFIS) measured properties. The experimental lint cleaner operated for a full ginning season at a commercial gin without operational problems. Measured HVI and AFIS parameters of the baled lint from the experimental lint cleaner generally equaled or exceeded those of the standard lint cleaner. This technology would benefit cotton producers and ginners by reducing fiber wastes from conventional saw-type lint cleaners.

For additional information on this lint cleaner technology, contact the lead scientist Mr. Stanley Anthony at WStanleyA@msa-stoneville.ars.usda.gov. For information about licensing this USDA-ARS technology or other cotton ginning technologies, contact Thomas D. Valco, tvalco@ars.usda.gov.