



## Carlos B. Armijo

**Carlos B. Armijo** is the 2021 recipient of the Mayfield Cotton Engineering award for his dedication and leadership in solving cotton quality and ginning issues and bringing high-speed roller ginning to the cotton industry.

Armijo is a research textile technologist with the USDA Agriculture Research Service at the Southwestern Cotton Ginning Research Laboratory in Las Cruces, New Mexico. Armijo leads and collaborates on research that develops new ginning methods and practices that improve the quality and textile processing efficiency of ginned cotton. He is directly responsible for planning and conducting research programs that develop subsystems, components, instrumentation, and techniques to process Upland and Pima cotton cultivars with roller ginning technologies, and to improve cotton length attributes and foreign matter extraction to expand current, and create new, markets for United States cotton.

Armijo has developed documentation describing how to properly size, construct, and maintain a cyclone collector which collects foreign matter and controls particulate emissions in a cotton gin. This information helps gins improve their conveying-air efficiency to comply with air quality standards. This publication is now accepted as an industry standard and is distributed at National Cotton Ginners Association Ginners' Schools in conjunction with the air systems curriculum. Armijo also found that modifying harvesting, cleaning, or ginning processes that occur before the fiber is separated from the seed were mildly successful in reducing levels of seed coat fragments, but removing seed coat frag-

ments at the lint cleaning machine with modified lint cleaner bars working in conjunction with an air knife may be more successful. These findings were facilitated by using innovative high-speed video techniques on a lint cleaner simulator.

Armijo has authored or co-authored more than 100 technical publications, including 54 peer-reviewed journal articles. A 21-year member of ASABE, Armijo is a longstanding member in the ASABE cotton engineering committee. He is also a member of the International Committee for Cotton Testing Methods with the International Textile Manufacturers Federation.

Throughout his career, Armijo has received a number of awards including the 2007 USDA-ARS Technology Transfer award of Superior Effort for Excellence in the transfer of high-speed roller ginning technology to the cotton ginning industry, and the Federal Laboratory Consortium Excellence in Technology Transfer award for the VIPR system for removing plastic contamination during the cotton ginning process in both 2020 and 2021.