COTTON GINNING: BEST MANAGEMENT PRACTICES

Thomas D. Valco
USDA, ARS
Stoneville, MS
Harrison Ashley
National Cotton Ginners Assoc.
Cordova, TN

Abstract

In 2014, 15.9 million "running" bales were produced from 601 gins, equaling to 26,460 bales/gin. The 2015 harvesting and ginning season have not been completed, but we are estimated to have produced 12.7 million bales ginned from about 585 gins or about 21,700 bales/gin. The U.S. cotton ginning industry has seen consolidation of gin plants, wide fluctuations in planted acres, shifts in production regions, higher processing rates, new seed cotton handling and transportation systems, and automated bale package systems. These industry changes have increased environmental and safety regulations over the past years. Many gins have become vertically integrated into cotton production, warehousing, and cottonseed storage, in an effort to maintain profitability. In addition, gins are using flatbed trailers to haul cotton over greater distances. These factors continue to drive our industry and because of these driving factors, additional consolidation is likely to occur in the future. Best Management Practices are important operational processes and conditions that are needed for efficient ginning to maintain fiber quality and to improve profitability. The costs of improperly harvested and stored modules are great and affect both the producer and ginner. Moreover, ginners need to remind growers that the varieties of cotton that they plant and harvesting practices will greatly influence the grades that the growers can expect. Properly-set dryer temperatures, correct air velocities in air ducts, properly-sized fans and motors, correct adjustments for the gin stand and lint cleaners, uniformly-formed bales, and press operations are included among the factors that will influence the growers' expected grades of cotton. Keeping equipment properly maintained and periodically adjusted is essential for having an efficient ginning operation. Ginners should be regularly updated on environmental regulatory requirements and safety training for all gin workers. Utilizing support software that monitors gin performance, maintenance records, down time, and locating modules in the field all help to improve the performance of the gin. Considering that proper drying is necessary for efficient cleaning, moisture needs to be restored for proper press operation and bale formation. Maintaining lint moisture at 6 -7% at the gin stand, and 7.5% or less at the press, requires close monitoring of restoration equipment and environmental conditions. Safety training is essential and needs to be a priority at every level of gin operation. Accidents can be costly from both a human toll and monetary standpoints. It is best to have well-trained workers in a safe work environment. To survive and remain profitable gins, must adopt and utilize new technology, continue to educate workers in both operational and maintenance principles and safety training. Vertical integration, the incorporation of Best Management Practices into ginning operations, and support of a strong ginning research program to improve both fiber quality and processing efficiency will help gins thrive and compete in the future.