

[Home](#) » [Volume 10 / 2006](#) » [Issue 4](#) »

Historical Review on the Effect of Moisture Content and the Addition of Moisture Addition to Seed Cotton before Ginning on Fiber Length

Authors: Richard K. Byler
Pages: 300-310
Engineering and Ginning

[Full Text PDF](#) (109K)

Seed cotton drying equipment was first used in the U. S. during the 1940s. Problems with fiber length associated with excessive drying were observed almost immediately. At first, high drying temperatures were blamed for the damage, but later it appeared that the fiber moisture content was the more important factor. Increased drying consistently improved grade, mostly due to the improved cleaning efficiency, and the negative impact on fiber length was less consistently observed. Staple, the fiber length measurement used in pricing, was often, but not always, improved when ginning at higher moisture content. Significantly lower yarn strength often resulted from cotton ginned at lower moisture content even when the staple length was not affected significantly. Reviewed literature consistently supported ginning at moisture content levels above 6% to preserve fiber length quality, but current data show that this goal is not being achieved. It has been shown that during periods of good weather the seed cotton is drier than desirable for ginning without additional drying. Several studies supported the practice of adding moisture to low moisture seed cotton, either as a vapor or liquid spray, before the gin stand in order to better preserve the fiber length quality.

The Journal of Cotton Science is published four times a year by [The Cotton Foundation](#).
Articles are available as Adobe PDF files and can be viewed with the free [Adobe Acrobat Reader](#).
Copyright ©1997-2005 The Cotton Foundation. All Rights Reserved.