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Evaluating pima cotton for production in the southeast U.S.

July 27, 2021

2019 Pima cotton trial at full bloom. Photo by Sarah Holladay.

Pima cotton (*Gossypium barbadense* L.) has extra-long, strong, and fine fibers that facilitate the spinning process, making the value of the lint worth almost twice as much than the more widely cultivated species, Upland cotton (*Gossypium hirsutum* L.). Pima cotton produces premium textiles because of its superior fiber quality.

Currently, U.S. production of Pima cotton is limited to the western United States and West Texas, but the crop was once grown in coastal regions of South Carolina and Georgia prior to the boll weevil invasion in the 1920s. To see if producers can successfully grow Pima cotton in the Southeast again, we need further research on the yield performance, growth, fiber quality, and feasibility of producing the crop.

The researchers evaluated 48 Pima genotypes and two popular Upland varieties and compared the impact of different ginning methods on fiber quality parameters. Surprisingly, ginning method appeared to have little impact on fiber quality. The research team also found that Pima yielded approximately half as much as Upland but consistently produced better fiber quality. In some cases, this translated into statistically similar net returns of Upland. This study helped identify several promising Pima genotypes for use in breeding studies aimed at developing new Pima breeding lines with U.S. Southeast adaptation.

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Holladay, S.K., Bridges, W.C., Jones, M.A., & Campbell, B.T. (2021). Yield performance and fiber quality of Pima cotton grown in the southeast United States. *Crop Science*. **https://doi.org/10.1002/csc2.20505**

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