



Perspectives on Cotton

Land Use & Cotton Production



The total amount of land on Earth is 33.1 billion acres. Of this, 10.3 billion acres of land could be suitable for growing crops—and 36% of that land is already producing crops.¹ With the world population estimated to increase significantly by the year 2050, maximizing the productivity of these lands, while minimizing environmental impact, is crucial.

Cotton is a model plant for meeting present and future needs for fiber, as well as food. Occupying less than 3% of the world's agricultural land, cotton production provides two crops with each seasonal harvest: cotton fiber, which currently supplies 30% of the world's textile fiber needs;² and cottonseed, a source of nutritious cooking oil and a protein-rich supplement for dairy cattle and aquaculture feeds.

Science and modern agriculture have enabled cotton growers around the world to produce more of this dual crop on less land than previous generations of farmers. And, the hardy nature of the cotton plant allows it to thrive in environments that cannot sustain food crops. Cotton, as a cash crop in these challenged regions, provides income for food, healthcare, and other necessities.



Cotton
Incorporated



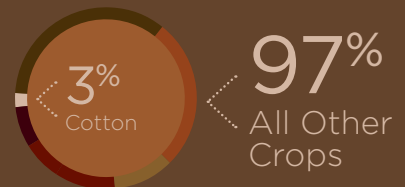
Land Use & Cotton Production

Stewardship & Efficiency

Cotton Uses a Small Percentage of Global Arable Land

Cotton occupies a relatively small percentage of the world's acreage; a fact that may seem at odds with the prevalence of cotton in home textiles and apparel. Each cotton harvest provides two crops: the familiar white fiber, and cottonseed, which can be used as a supplemental feed for cattle and farm-raised fish, or pressed to produce cottonseed oil, a favorite in the commercial food industry. For every pound of cotton fiber, cotton fields produce approximately 1.4 pounds of cottonseed.⁴

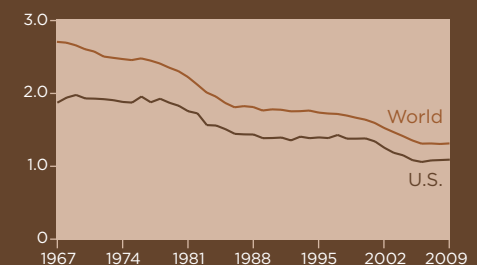
Global Acreage by Crop³



Cotton Uses Less Land to Produce More Fiber

Cotton's global land use has declined 30% over the last 30 years, according to a report by Field to Market, the Alliance for Sustainable Agriculture.⁵ In the U.S., declining cotton acreage has not hampered fiber yields, which have doubled over the past three decades even as planted acres have declined. These gains have been made possible through the use of higher-yielding cotton varieties developed through both genetic modification and conventional breeding.

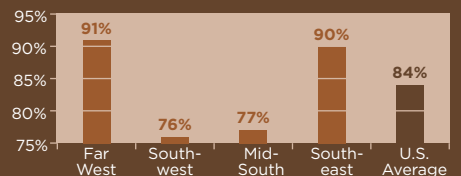
Cotton's Land Use Has Declined⁶



Cotton is a Rotational Crop

In the U.S., 84% of cotton producers rotate other crops such as wheat, corn, and soybeans in their fields.⁷ This practice has a range of benefits for overall soil health, including nitrogen replenishment and the mitigation of pests and prevention of pathogen build-up.

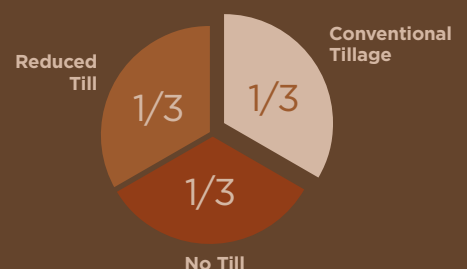
Majority of U.S. Cotton Growers Practice Crop Rotation



Cotton Tillage Practices Protect and Rejuvenate Soil

Two-thirds of U.S. cotton growers employ conservation tillage, the practice of leaving the previous year's crop residue on fields before and after the planting of the next crop.⁸ Conservation tillage helps reduce soil loss, increase water holding capacity, and minimize runoff. Conservation tillage practices include no-till, in which all crop residues remain on the field, and reduced tillage, in which a portion of the field residues are left on fields. The widespread adoption of these practices has resulted in a 68% reduction in soil loss on U.S. cotton acreage over the past 30 years.

Two Thirds of U.S. Growers Practice Conservation Tillage



For more information and citations, please visit <http://cottontoday.cottoninc.com>.

Citations

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- 1 Bruinsma, J. 2003. *WORLD AGRICULTURE: TOWARDS 2015/2030 AN FAO PERSPECTIVE*. Food and Agriculture Organization. Published by: Earthscan Publications Ltd, 120 Pentonville Road, London. 432 pp.
- 2 FAOSTAT. 2013. FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS. Based on data from the 2012 crop year downloaded October 2013 from: <http://faostat.fao.org/site/567/default.aspx#ancor> 2011, Fiber Organon
- 3 FAOSTAT. 2013. FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS. Based on data from the 2012 crop year downloaded October 2013 from: <http://faostat.fao.org/site/567/default.aspx#ancor>
- 4 USDA, National Agricultural Statistics Service – Quick Stats – <http://quickstats.nass.usda.gov/>. Based on U.S. average cottonseed to fiber ratio from 2008 to 2012.
- 5 Field to Market (2012 v2). *Environmental and Socioeconomic Indicators for Measuring Outcomes of On-Farm Agricultural Production in the United States; Summary Report: Second Report, Version 2, December 2012*. Available at: http://www.fieldtomarket.org/report/national-2/PNT_SummaryReport_A17.pdf
- 6 Meyer, L., S. MacDonald, and J. Kiawu. 2011. *Cotton and Wool Yearbook*. Economic Research Service, USDA. Data set updated: November 2011. Also available at: <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1282>
- 7 Reed, J.N., E.M. Barnes and K.D. Hake. 2009. *US Cotton Growers Respond to Natural Resource Survey*. Technical Information Section. International Cotton Advisory Committee, THE ICAC RECORDER, Vol. XXVII. No. 2, June 2009. Also at: <http://cottontoday.cottoninc.com/2008-Cotton-Grower-Survey-Results/2008-Cotton-Grower-Survey-Results.pdf>
- 8 Reed, J.N., E.M. Barnes and K.D. Hake. 2009. *US Cotton Growers Respond to Natural Resource Survey*. Technical Information Section. International Cotton Advisory Committee, THE ICAC RECORDER, Vol. XXVII. No. 2, June 2009. Also at: <http://cottontoday.cottoninc.com/2008-Cotton-Grower-Survey-Results/2008-Cotton-Grower-Survey-Results.pdf>