

# 2012 and Preliminary 2013 U.S. Organic Cotton Production & Marketing Trends

January 2014



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**Produced by:**



**For:**  
**Cotton Incorporated**

## 2012 and Preliminary 2013 U.S. Organic Cotton Production & Marketing Trends

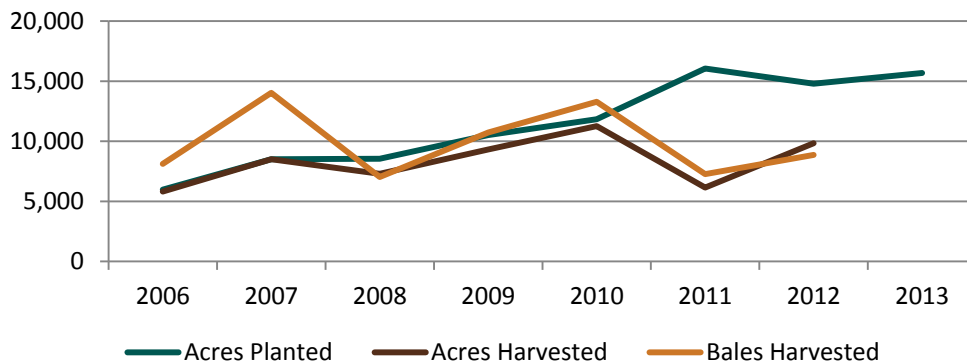
### EXECUTIVE SUMMARY

Produced by the Organic Trade Association, January 2014

U.S. organic cotton production increased in 2012, owing to a measure of relief farmers experienced from drought conditions in 2011. While acres planted in organic cotton actually decreased 8% from 16,050 in 2011 to 14,787 in 2012, acres harvested increased to 9,842 – a 60% gain over 2011, when only 38% of the total planted acres were able to be harvested. As a result, 8,867 bales were produced in 2012, representing an increase of about 22% over the prior year.

The majority of the U.S. organic cotton crop for 2012 was planted to upland cotton, with pima cotton representing fewer than 1,000 planted acres.

Figure 1: U.S. Organic Cotton Production



A predominance of survey respondents reported receiving \$1.40 per pound for organic upland cotton, with prices reaching as high as \$2.15 for organic pima cotton. This price was slightly lower than what producers have reported in years past. Increased global competition was cited as a factor, along with quality issues in the 2012 crop that were attributed to weather conditions. Most producers indicated that their cotton was sold by a marketing cooperative. According to USDA's Agricultural Marketing Service, organic cottonseed prices ranged from \$500 to \$650 per ton.

Commercial availability of organic seed continues to be a major hurdle for organic cotton producers. Genetically Modified (GM) seeds have become dominant in the marketplace as major seed companies have purchased smaller labels and discontinued their organic, non-GM and non-treated cottonseed offerings. Most survey respondents reported using at least a portion of their own saved cottonseed from year to year.

While few are working to improve cotton through traditional breeding techniques, promising research is being conducted in this area by a team at Texas A&M AgriLife Research in Lubbock, Texas.

Drought conditions that have affected much of the western U.S. for the past three years continued into 2013, though the primary cotton growing region in west Texas saw slightly more rain than in prior years. In North Carolina, a wet spring gave weeds a head start over the slower germinating cotton, causing some growers to abandon crops in that region.

For more information, see the full report, or contact Angela Jagiello at (802) 275-3800.

## BACKGROUND

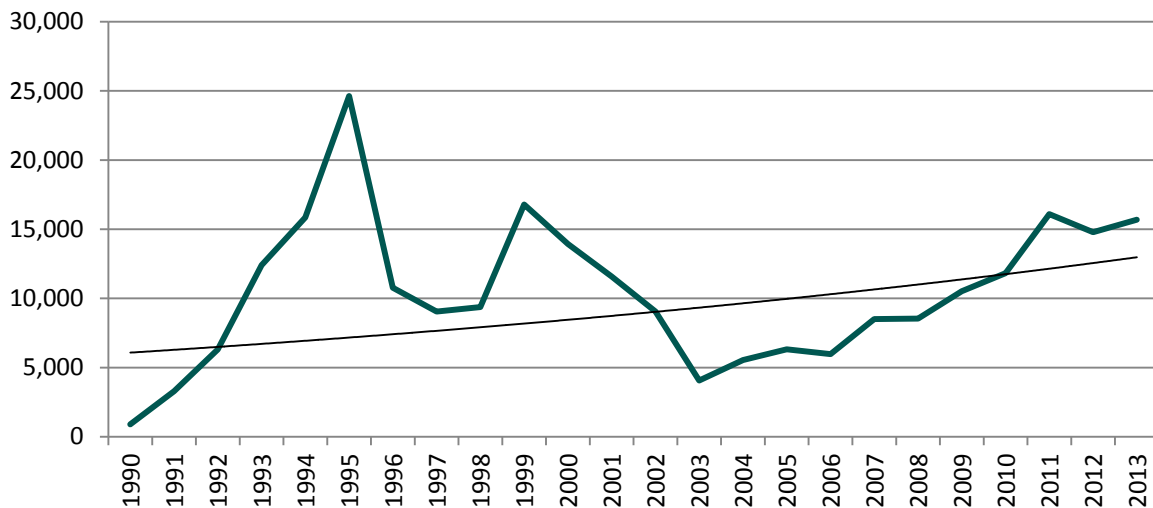
In December 2013, the Organic Trade Association (OTA) identified 81 people and businesses thought to grow organic cotton in Arizona, California, New Mexico, North Carolina and Texas, and mailed a survey to them to identify trends in U.S. organic cotton farming.

The survey collected data on 2012 U.S. organic cotton production and marketing and preliminary information on 2013 organic cotton production. The Texas Organic Cotton Marketing Cooperative (TOCMC) also provided extensive data for this report.

## 2012 ORGANIC COTTON PRODUCTION OVERVIEW

U.S. organic cotton production increased in 2012, owing to a measure of relief farmers experienced from drought conditions in 2011. While acres planted in organic cotton actually decreased 8% from 16,050 in 2011 to 14,787 in 2012, acres harvested increased to 9,842 – a 60% gain over 2011, when only 38% of the total planted acres were able to be harvested. As a result, 8,867 bales were produced in 2012, representing an increase of about 22% over the prior year.

Figure 1: U.S. Organic Cotton Acres Planted



## ACRES PLANTED / ACRES HARVESTED

Acres planted to U.S. organic cotton contracted slightly to 14,787 in 2012. U.S. organic cotton producers harvested cotton from 9,842 acres, representing nearly 70% of their planted acres in 2012, and resulting in production of 8,867 bales. Because dryland acreage outpaces irrigated acres for organic cotton by a factor of nearly two to one, U.S. organic cotton is particularly susceptible to dry conditions.

## PRICING & MARKET

A predominance of survey respondents reported receiving \$1.40 per pound for organic upland cotton, with prices reaching as high as \$2.15 for organic pima cotton. This price was slightly lower than what producers have reported in years past. Increased global competition was cited as a factor, along with quality issues in the 2012 crop that were attributed to weather conditions. Most producers indicated that their cotton was sold by a marketing cooperative.

According to USDA's Agricultural Marketing Service, organic cottonseed prices ranged from \$500 to \$650 per ton. This compares to \$210 to \$320 per ton for conventional cottonseed. Cottonseed yields ranged from 640 to 750 pounds per bale of ginned lint. Most of the cottonseed is sold to organic dairies, with some saved for replanting.

Several producers reported a surge in interest in U.S.-grown organic cotton that in light of the economic downturn of the late 2000's. While still boutique in nature, there is a small contingent of manufacturers who are passionate about producing textiles that were grown and manufactured domestically.

## AGRICULTURE

Commercial availability of organic seed remains a major hurdle for organic cotton producers. Genetically Modified (GM) seeds have become dominant in the marketplace, as major seed companies have purchased smaller labels and discontinued their organic, non-GM and non-treated cottonseed offerings. Most survey respondents reported using at least a portion of their own saved cottonseed from year to year.

While few are working to improve cotton through traditional breeding techniques, one noteworthy example is Dr. Jane Dever, Associate Professor - Cotton Breeding at Texas A&M AgriLife Research in Lubbock, Texas. There, Dr. Dever and a group of graduate students are working on a variety of projects to improve organic and non-GM cottonseed. Research goals include improved fiber quality and yields, as well as increased tolerance to drought, pests and weeds.



*Dr. Dever (center, right) and her research team.*

In October, 2013, one of Dr. Dever's students, Ryan Gregory, was awarded a fellowship through Seed Matters™, an initiative of Clif Bar Family Foundation. Gregory's research is focused on breeding cotton for drought and salt tolerance. He is also developing efficient methods for screening conventional and organic cotton for contamination from GMOs.

## FARM SIZE, REVENUES & CROP INSURANCE

Farm size averaged 2,140 acres, with some farming as few as 40 acres, and others farming as many as 7,000 acres. Although several growers reported revenues upwards of \$100,000 from organic cotton sales in 2011, many others were forced to abandon their entire crops to weather or weed damage.

On a positive note for U.S. organic cotton growers, 2012 represented the second crop year in which USDA's Risk Management Agency allowed organic producers the option of an "Organic Price Election," when purchasing multi-peril crop insurance. This meant that, for an additional premium, organic farmers were compensated for crop losses at higher than the rate at which conventional cotton was trading in a given region.

Cotton is one of only a handful of crops where organic growers have the option of insuring their crops at a higher rate than their conventional counterparts.

## EXPERIENCED PRODUCERS

Organic cotton growers face myriad additional challenges posed by weed and pest pressure without the assistance of conventional herbicides and insecticides, biotechnology, and other commonly employed resources. However, the average organic grower has been certified for 17 years—affording them a wealth of acquired knowledge to combat these problems.

Additionally, U.S. organic cotton growers enjoy healthy demand for their products, cultivated, at least in part, through positive relationships established over their years in business.

## OUTLOOK FOR 2013 & BEYOND

Survey respondents reported a six percent increase in acres planted – from 14,787 in 2012 to 15,685 for 2013. They envision a five-year increase in planted acres to 18,614, marking the largest acreage devoted to organic cotton in the U.S. since 1995. While 2013 plantings of organic cotton were up slightly over the prior year, production is expected to hold steady, primarily due to weather-related issues.

Drought conditions that have affected much of the western U.S. for the past three years continued into 2013, though the primary cotton growing region in west Texas saw slightly more rain than in prior years. A late frost in May and severe spring storms that brought baseball-sized hail to the area also hampered plant development in the region.

In North Carolina, the fledgling organic cotton sector was impacted by too much, rather than too little moisture; a wet spring there gave weeds a head start over the slower germinating cotton, causing growers to abandon some crops in that region.

Figure 2: U.S. Organic Cotton Acres Harvested

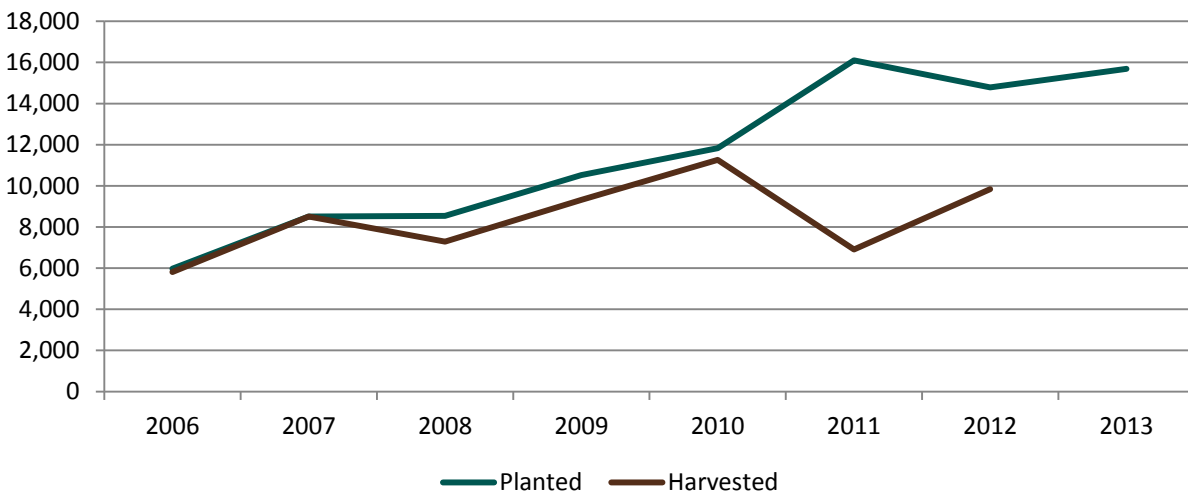
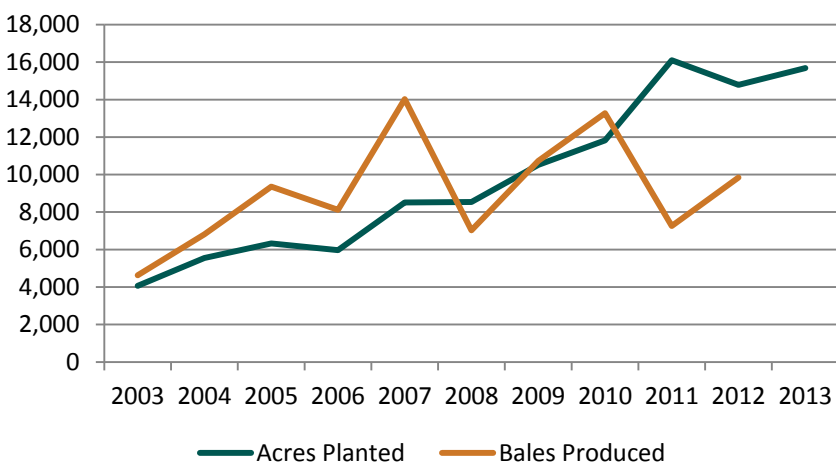


Figure 3: U.S. Organic Cotton Production, 2001-2013



Year Produced	Total Bales
2013	Not yet available
2012	8867
2011	7,259
2010	13,279
2009	10,731
2008	7,026
2007	14,025
2006	8,116
2005	9,360
2004	6,814
2003	4,628

**GOTS**

In 2011, USDA issued a policy memorandum addressing labeling of textile products containing certified organic fibers including cotton, linen and wool. According to USDA, products containing organically grown fibers that have been processed according to the Global Organic Textile Standard (GOTS) may now be marketed as organic, with certain restrictions. GOTS is a stringent voluntary global standard for the entire post-harvest processing (including spinning, knitting, weaving, dyeing and manufacturing) of apparel and home textiles made with organic fiber.

The number of facilities becoming certified to GOTS increased 11 percent to surpass the 3000 mark in 2012, growing from 2,714 facilities in 2011 to 3,016 facilities in 2012, according to the GOTS International Working Group. The U.S. ranks 13<sup>th</sup> with the number of GOTS-certified facilities increasing from 40 to 44 facilities from 2011-2012.

The increased adoption of GOTS is in part the result of rising awareness of U.S. organic textile policy which requires companies claiming their organic fiber products are “organic” to be certified either to GOTS or the U.S. Department of Agriculture National Organic Program’s standards. For more information, see: <http://www.ota.com/organic/fiber/What-are-Organic-Fiber-Products.html>.

## GLOBAL SUPPLY AND DEMAND

According to Textile Exchange, approximately 637,563 bales of organic cotton were produced on 783,094 acres around the globe in 2011-2012. India grew the most, followed by (in order of rank) Turkey, China, Tanzania, the United States, Mali, Peru, Uganda, Egypt, and Burkina Faso. However, the organization notes that due to the conflict in Syria (which typically ranks second or third in world organic cotton production), no figures were available for that nation.

Textile Exchange reports that nearly three quarters of the world’s organic cotton is produced in India, with just over 11% coming from Turkey, about 6% from China, 5% from Tanzania. The U.S. produces just over 1% of the global supply of organic cotton, with all other countries producing less than a percent of the total supply.

## GROWTH CONSTRAINTS

The weather conditions affecting supply are discussed above. However, there are additional factors limiting the supply of U.S. organic cotton at this time.

The primary constraint for domestic cotton production in the U.S. is the particular combination of weather and geographical conditions necessary to make this crop thrive. The area must receive enough rain to germinate the cotton, but not so much as to create undue weed pressure. Once sprouted, cotton prefers warm, dry weather during its relatively long growing season. Organic cotton requires a killing frost to defoliate the plant prior to harvest. These periods of deep cold also help to keep pest pressure to a minimum in organic cotton fields. These conditions describe a relatively limited geography in the U.S., and as noted in this report and others, annual weather conditions must cooperate for the crop to succeed.

Lack of commercial availability of organic seeds is a major factor inhibiting the growth of U.S. organic cotton. Growing cotton organically also involves overcoming pressures faced by all cotton farmers, but made more difficult by the constraints of the organic regulations. These pressures include weeds, drought conditions and the presence of common pests such as the boll weevil. Compounding these difficulties, little work is being done to improve cottonseed through traditional breeding techniques.

A final, less tangible, constraint to organic cotton production in the U.S. is the culture among farmers. In areas where organic farming is established and somewhat successful, it can be easier for organic farmers to coexist with conventional neighbors. In predominantly conventionally-farmed regions, organic growers can face skepticism and pressure from neighbors, family members and suppliers.

#### AREAS OF OPPORTUNITY

U.S. organic cotton growers responded that they could further benefit from the development of the following resources:

1. Marketing efforts to increase consumer demand for U.S.-grown organic cotton
2. Market development to encourage better gate pricing
3. Improved awareness of GOTS label within the U.S. market
4. Agricultural advances to assist with weed control
5. Continued improvements to crop insurance
6. Cotton seed varieties better suited to growing conditions
7. Streamlined administrative process for the organic grower
8. Tax credits, certification cost share and other financial incentives to encourage organic production

#### GOVERNMENT AGENCY AND OTHER RESOURCES

There are numerous resources utilized by U.S. organic cotton growers. In order of popularity, stakeholders responded that they had benefited from:

1. National Resources Conservation Service programs.
2. USDA's Farm Service Agency
3. Organic Cost Share Program  
<http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateQ&leftNav=NationalOrganicProgram&page=NOPCostSharing&description=Organic%20Cost%20Share%20Program&acct=nopgeninfo>
4. Environmental Quality Incentive Program (EQIP)  
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip>
5. GOTS

#### METHODOLOGY

In December 2013, the Organic Trade Association mailed surveys to 81 people/companies believed to be farming organic cotton. Surveys were sent to Arizona, California, New Mexico, Texas and North Carolina, thought to represent all the states with growers of organic cotton in the United States in 2012. OTA identified growers from a list of farmers of organic cotton from the prior year's survey, state agencies and certification programs, and a cooperative in the United States that works with organic farmers.



Several of those who were sent surveys were removed from the survey population because they did not grow or no longer grew organic cotton, or their land is being farmed by another farmer. Of those contacted, 12 of the completed surveys qualified for and were included in the survey analysis because the respondents grew organic cotton in 2012. These surveys include eight respondents who are members of the Texas Organic Cotton Marketing Cooperative (TOCMC), and four other qualifying surveys from farmers not associated with TOCMC. In 2012, TOCMC had a total of 29 members who were certified organic and grew organic cotton.

#### ACKNOWLEDGEMENTS

This annual survey is only possible because U.S. organic cotton farmers generously contribute their limited time during the growing and harvest seasons to complete the farm survey and respond to telephone calls and e-mails. Their time and sharing of data about their farming operations are greatly appreciated. Many have contributed information on an annual basis, making this survey a reality.

Many thanks to Kelly Pepper of Texas Organic Cotton Marketing Cooperative for again sharing his time and data on the cooperative, both of which were invaluable in developing an accurate profile of 2012 organic cotton production trends and a preliminary look at 2013 data.

Most importantly, thanks to Cotton Incorporated which made this survey possible with a grant to the Organic Trade Association.

For inquiries about this report, contact Angela Jagiello at (802) 275-3800.

APPENDIX: DATA RESOURCES

**Table 1: Estimated U.S. Organic Acreage Planted**

Year	Planted acres	% change
<b>2019 Est.</b>	<b>18,614</b>	<b>12%</b>
<b>2014 Est.</b>	<b>16,635</b>	<b>6%</b>
2013	15,685	6%
2012	14,787	-8%
2011	16,050	36%
2010	11,827	12%
2009	10,521	23%
2008	8,539	0%
2007	8,510	43%
2006	5,971	-6%
2005	6,325	14%
2004	5,550	37%
2003	4,060	-55%
2002	9,044	-22%
2001	11,586	-17%
2000	13,926	-17%
1999	16,785	79%
1998	9,368	4%
1997	9,050	-16%
1996	10,778	-56%
1995	24,625	55%
1994	15,856	28%
1993	12,402	97%
1992	6,306	92%
1991	3,290	266%
1990	900	N/A

**Table 2: Estimated Organic Cotton Acreage**

<b>Year</b>	<b>Planted acres</b>	<b>Acres Harvested</b>	<b>Percent Harvested</b>
2013	15,685	Not yet available	Not yet available
2012	14,787	9,842	67%
2011	16,050	6,151	38%
2010	11,827	11,262	95%
2009	10,521	9,321	89%
2008	8,593	7,289	85%
2007	8,510	8,510	100%
2006	5,971	5,811	97%

**Table 3: Bales Produced 2001-2013**

<b>Year Produced</b>	<b>Total bales</b>
2013	Not yet available
2012	8,867
2011	7,259
2010	13,279
2009	10,731
2008	7,026
2007	14,025
2006	8,116
2005	9,360
2004	6,814
2003	4,628
2002	No data available
2001	9,897