OVERVIEW OF THE U.S. COTTON INDUSTRY

National Cotton Council OF AMERICA

National Cotton Council

WWW.COTTON.ORG

Mission

To ensure the ability of all U.S. cotton industry segments to compete effectively and profitably in the raw cotton, oilseed and U.S.-manufactured product markets at home and abroad.

The Council serves as the central forum for consensus-building among producers, ginners, warehousers, merchants, cottonseed processors/dealers, cooperatives and textile manufacturers. The organization is the unifying force in working with the government to ensure that cotton's interests are considered.

The Council's mission and objectives are carried out with the help of democratically-developed policy.

Contact Information

Memphis Office (Headquarters)
7193 Goodlett Farms Parkway
Cordova, TN 38016
(901) 274-9030
(901) 725-0510 Fax

Washington Office
1521 New Hampshire Ave NW
Washington DC 20036-1205
(202) 745-7805
(202) 483-4040 Fax

Mailing Address
National Cotton Council of America
PO Box 2995
Cordova, TN 38088-2995

Overview of the U.S. Cotton Industry

Table of Contents

National Cotton Council

OF AMERICA

Cotton's Economic Impact

U.S. cotton is a cornerstone of the rural economy. The scope and economic impact extend well beyond the approximately 19,000 farmers that plant between 9 and 14 million acres of cotton each year. Taking into account the diversified cropping patterns, the nation's cotton farmers cultivate more than 30 million acres of land each year.

While much of the industry is concentrated in 17 cotton-producing states stretching from Virginia to California, the processors and distributors of cotton fiber and downstream manufacturers of cotton apparel and home-furnishings are located in virtually every state. Beyond the farm-gate, the distribution and processing of cotton includes cotton gins, independent merchants and cooperative merchandisers, warehouses, cottonseed distributors and processors, and textile mills.

Farms and businesses directly involved in the production, distribution and processing of cotton employ almost 200 thousand workers and produce direct business revenue of more than $27 billion.

Accounting for the ripple effect of cotton through the broader economy, direct and indirect employment surpasses 420 thousand workers with economic activity well in excess of $100 billion.[1] *(Regional impacts provided below)*

Table 1 – Cotton's Economic Impact

	Cotton Sector		Broader Economy	
	Jobs	**Direct Revenue (Million $)**	**Jobs**	**Economic Activity (Million $)**
Southeast (AL, FL, GA, NC, SC, VA)	77,733	$10,647	173,454	$47,502
Mid-south (AR, LA, MO, MS, TN)	31,434	$6,090	70,143	$27,172
Southwest (KS, OK, TX)	41,569	$5,715	92,758	$25,497
West (AZ, CA, NM)	24,028	$2,318	53,616	$10,343
United States	**191,405**	**$27,622**	**427,102**	**$123,241**

In addition to the downstream economic activity and employment, cotton farmers annually purchase almost $4 billion in production inputs such as seed, fertilizer, chemicals and fuel. These dollars flow directly into the local economy by supporting businesses that supply inputs.

[1] Direct employment and revenue based on 2007 Census of Agriculture and 2002 Economic Census. Indirect employment and economic activity derived from input-output multipliers reported by University of Tennessee's Agri-Industry Modeling and Analysis Group.

The economic activity generated by a viable cotton industry supports local property values and the tax base. Researchers at the University of Georgia found that every dollar of government support to the cotton industry generated $1.04 in tax revenues for federal, state and local governments.[2]

Cotton is the basic resource for thousands of consumer and industrial products manufactured in the U.S. and throughout the world, and the contribution made by cotton to the food and fiber industry continues to grow in importance.

The United States leads the way in consumption of cotton textiles and apparel, purchasing more than 20 million bales, which is 18% of the world's cotton production. Growing cotton consumption in the U.S. did not happen by accident, but is the result of an effective and longstanding research and promotion program paid for by U.S. cotton farmers and importers of cotton textiles.

An often-overlooked component of the crop is the vast amount of cottonseed that is produced along with the fiber. Annual cottonseed production averages 4.5 million tons[3]. More than 6 billion pounds of whole cottonseed and cottonseed meal, valued at $650 million, are used in feed for livestock and poultry. And over 500 million pounds of cottonseed oil are used for food products ranging from margarine to salad dressing.

The U.S. cotton program is an important component of the comprehensive safety net provided to agriculture and rural America. Current programs support the rural economy without distorting individual commodity markets.

[2] Archie Flanders, Nathan B. Smith and John C. McKissick, "Input-Output Analysis with Public Policy Objectives: A Case Study of the Georgia Cotton Industry," *Journal of Agribusiness* 24,2 (Fall 2006): 221-234.
[3] Cottonseed data reflect 3-year averages for 2007 through 2009 crops.

Cotton Market Situation

The cotton market is experiencing unprecedented prices. At the start of 2009 futures hovered around 40 cents. A steady recovery ensued and prices repeatedly bumped up against 80 cents through the first half of 2010. After the December ’10 contract closed above 80 cents on August 5, it seemed as if the sky was the limit as the December contract topped $1.50 in early November. Following a brief decline in November and December, nearby futures have again moved above $1.40 per pound.

The ‘09/10 marketing year provided a much different landscape than the previous five years as demand recovered more strongly than anticipated and exceeded production by 17 million bales. As a result, cotton stocks dropped sharply. In the United States, ‘09/10 ending stocks fell below 3 million bales, reaching their lowest level since ‘95/96.

Export markets continue to account for approximately three-fourths of total demand for U.S. cotton. As a result, developments in key international markets will have significant influence on the U.S. cotton industry. For the ‘10/11 marketing year, this situation is no different. In 2010, devastating floods affected portions of the cotton-producing regions in Pakistan, and estimates indicate that production losses exceeded 1 million bales. As a result, imports for the ‘10/11 marketing year are expected to increase from previously expected levels.

India, the world’s second largest producer and processor of raw fiber, is truly a wildcard in the current cotton market. In the ‘09/10 marketing year, India’s textile industry, based on concerns of rising cotton prices, successfully persuaded the Indian government to institute a ban on cotton exports. By late summer, India’s uncertain export regime continued to support the cotton market. Once India had a clearer picture of their production potential, it was announced that a limited quota of exports would be allowed in the ‘10/11 marketing year. Although, USDA currently projects that India will harvest a record crop of 26 million bales for the ‘10/11 marketing year, exports are expected to be constrained by the announced quota.

China remains the dominant force in the world cotton market. In the ‘09/10 marketing year, mill use rebounded to 50 million bales, up from 44 million bales in ‘08/09. While mill use was recovering, China’s domestic production slipped to 32 million bales. In addition to importing almost 11 million bales in the ‘09/10 marketing year, the Chinese government aggressively auctioned cotton from state reserves in an effort to satisfy the internal deficit. For the ‘10/11 marketing year, China is expected to import 15 million bales of cotton, but even that level of imports does not replenish stocks.

Resurgence in global demand, coupled with Pakistan’s production problems, India’s limited exports and China’s tight stocks, should prove beneficial for U.S. cotton exports in ‘10/11. Early-season sales are off to a record-setting start as 14.5 million bales of U.S. cotton were committed to the export market by early January. This represents more than 90% of projected total exports of 15.75 million bales, which if achieved, would mark the second highest export total after the ‘05/06 marketing year. Based on the current balance sheet for U.S. cotton, perhaps the factor most limiting U.S. exports appears to be available supplies as ending stock levels are projected to remain very tight.

For the ‘10/11 marketing year, USDA projects U.S. mill use at 3.6 million bales, an improvement of 150 thousand bales from ‘09/10. U.S. mills are bolstered by strong cotton yarn demand and an improving economic climate. In addition, the Economic Adjustment Assistance Program (EAAP), authorized in the 2008 Farm Bill, has enabled U.S. cotton textile manufacturers to respond to this improved economic environment by providing much-needed assistance for capital investments and infrastructure improvements.

U.S. cotton farmers responded to stronger prices in the spring of 2010 by increasing cotton acres by 20% from the 2009 level. The recovery comes after three successive declines pushed acres down by 40%. Cotton farmers have demonstrated that they are responsive to market signals. With generally good yields and low abandonment, 2010 U.S. cotton production is estimated at 18.3 million bales, up from 12.2 million bales in 2009. Despite the larger U.S. crop, stronger domestic and export demand are expected to reduce stocks to just 1.9 million bales by the July 31, 2011, which represents the end of the ‘10/11 marketing year.

One issue to monitor is the ability to expand cotton demand at these higher prices. Fortunately, yarn prices, which represent the output prices for textile mills, have generally increased along with cotton prices. This allows spinners to maintain some workable margin between their cost of raw materials and their output price. It remains to be seen whether cotton demand can continue to expand as current price levels.

Approaching the 2011 planting season, there will be tremendous focus on potential crop shifts, not only in the United States but also in other countries. Historically, U.S. cotton acres have tracked very closely with expected market prices, as measured by harvest-time contracts during the weeks leading up to planting. In 2010, the ratios moved in cotton’s favor as cotton prices increased. As of early January, cotton prices for the December ’11 contract are trading substantially higher than the previous year. However, the same can also be said for corn and soybeans. In fact, the price ratios for the ’11 contracts are very similar to those same ratios for the ’10 planting season.

For the coming year, cotton’s balance sheet remains supportive of prices as world stocks are not expected to recover. However, the outlook is not without risks and uncertainties, particularly given the fragile nature of the macroeconomic recovery.

Table 2 – U.S. Cotton Production by State

	Planted Acres		Production	
	2010	05-09 Avg	2010	05-09 Avg
	(Thousand Acres)		(Thousand Bales)	
United States	10,973	11,793	18,315	17,938
Alabama	340	414	480	551
Arizona	198	177	595	513
Arkansas	545	844	1,180	1,754
California	306	428	876	1,181
Florida	92	85	150	132
Georgia	1,330	1,118	2,230	1,919
Kansas	51	62	80	70
Louisiana	255	422	450	734
Mississippi	420	754	850	1,334
Missouri	310	380	685	763
New Mexico	50	51	110	98
North Carolina	550	598	970	1,005
Oklahoma	285	225	415	285
South Carolina	202	199	365	291
Tennessee	390	488	680	822
Texas	5,567	5,473	8,082	6,350
Virginia	83	77	117	138

Exhibit 1 – U.S. Cotton Production by County

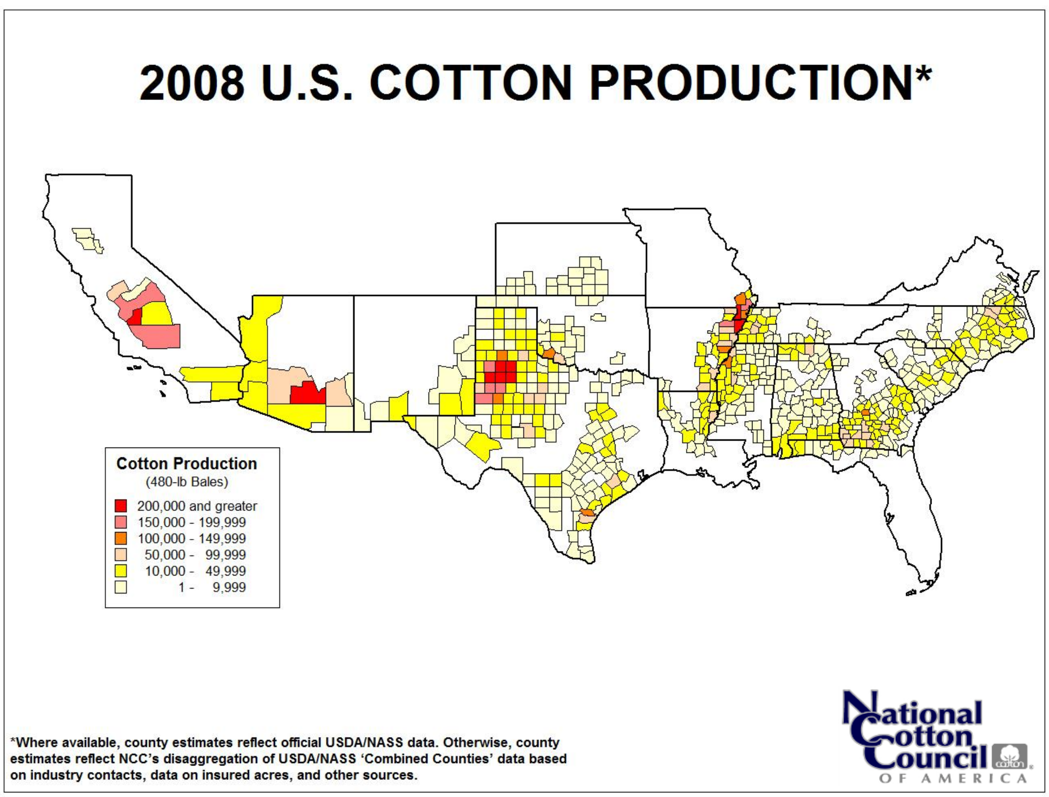


Table 3 - Balance Sheet for Selected Countries & Regions*

	09/10	10/11
	(Million Bales)	
World		
Production	101.54	115.46
Mill Use	118.52	116.58
Trade	35.60	38.35
Ending Stocks	43.85	42.84
United States		
Production	12.19	18.32
Mill Use	3.46	3.60
Net Exports	12.04	15.75
Ending Stocks	2.95	1.90
Mexico		
Production	0.42	0.62
Mill Use	1.90	1.83
Net Exports	-1.32	-1.15
Ending Stocks	0.58	0.50
Brazil		
Production	5.45	8.20
Mill Use	4.40	4.50
Net Exports	1.84	1.90
Ending Stocks	4.35	6.30
Turkey		
Production	1.75	2.25
Mill Use	5.80	5.90
Net Exports	-4.24	-2.95
Ending Stocks	1.93	1.31
West Africa		
Production	2.22	2.63
Mill Use	0.18	0.18
Net Exports	2.27	2.41
Ending Stocks	0.52	0.55
Uzbekistan		
Production	3.90	4.80
Mill Use	1.10	1.10
Net Exports	3.80	3.75
Ending Stocks	0.95	0.90

	09/10	10/11
	(Million Bales)	
China		
Production	32.00	30.00
Mill Use	50.00	47.00
Net Exports	-10.88	-14.98
Ending Stocks	15.25	13.22
India		
Production	23.20	26.00
Mill Use	19.65	21.50
Net Exports	5.95	4.30
Ending Stocks	6.52	6.72
Pakistan		
Production	9.60	8.80
Mill Use	10.90	10.20
Net Exports	-0.70	-1.05
Ending Stocks	2.83	2.46
Indonesia		
Production	0.03	0.03
Mill Use	2.05	1.90
Net Exports	-2.09	-1.91
Ending Stocks	0.36	0.35
Vietnam		
Production	0.02	0.02
Mill Use	1.60	1.60
Net Exports	-1.69	-1.55
Ending Stocks	0.37	0.34
Bangladesh		
Production	0.05	0.05
Mill Use	3.80	4.00
Net Exports	-3.80	-3.95
Ending Stocks	0.74	0.73
Australia		
Production	1.78	4.00
Mill Use	0.04	0.04
Net Exports	2.12	2.70
Ending Stocks	0.70	2.11

* Source: USDA January 2011 World Agricultural Supply & Demand Estimates


COTTON
Field to Fabric in Forty Frames
Even after 8,000 years, cotton remains the most miraculous fiber under the sun. Noted for its versatility, appearance, performance and comfort, cotton provides thousands of useful products and creates millions of jobs as it moves year after year from field to fabric.
The journey from field to fabric begins after land is cleared and precision planters place cottonseed in the soil at a uniform depth and interval. The journey ends with textile manufacturers constructing cotton fabrics used to create fashionable cotton clothing and home furnishings.


Cotton planting begins as early as February in South Texas and as late as June in northern areas of the Cotton Belt


Seedlings emerge from the soil within one to two weeks after planting


Growers cultivate the rows of young cotton to provide a 6-to-8 week weed-free period following planting


Cotton minimizes ground water contamination, adapts to poor soils and is an efficient user of fertilizer


Cotton generates more dollars per gallon of water than any other field crop

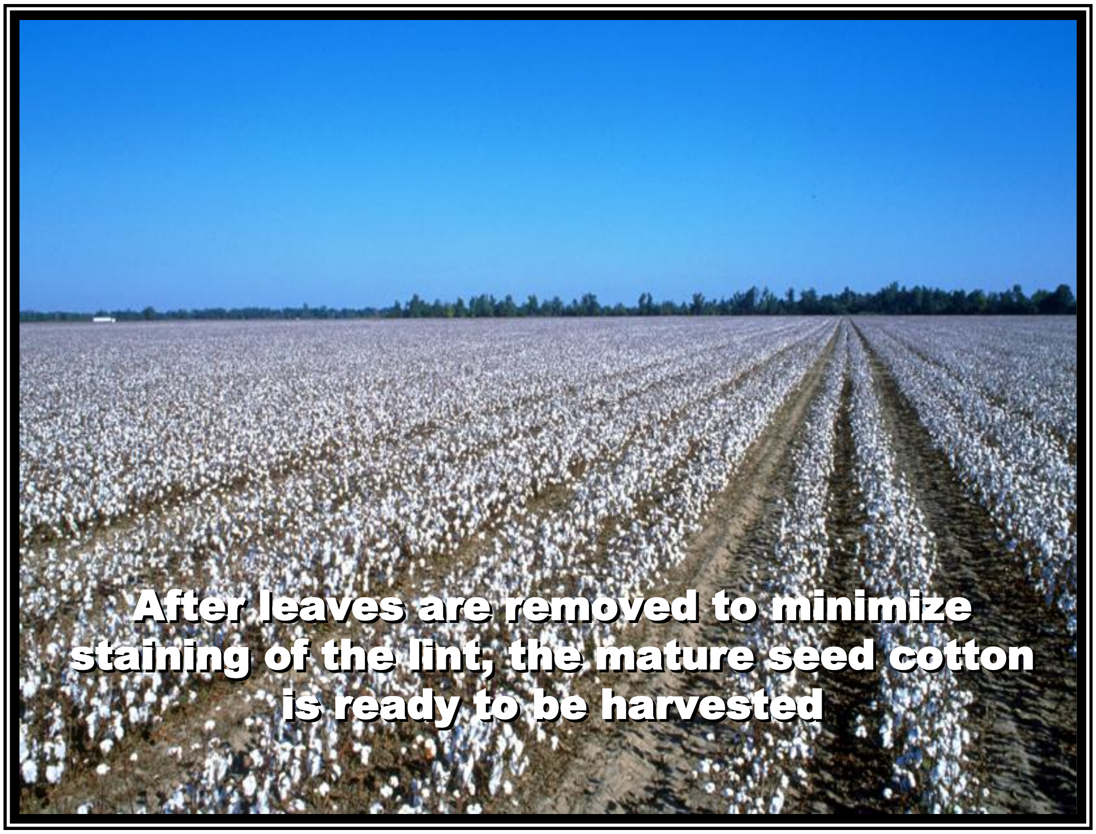

Most U.S. cotton is grown on rain moisture, but supplemental irrigation systems using equipment such as the center pivot have helped increase acreage and stabilize yields


Squares or flower buds form on the cotton plants four to six weeks after the seedlings have emerged


Creamy to dark yellow blossoms that appear on the cotton plant three weeks after the buds form eventually turn pink and then dark red before falling off

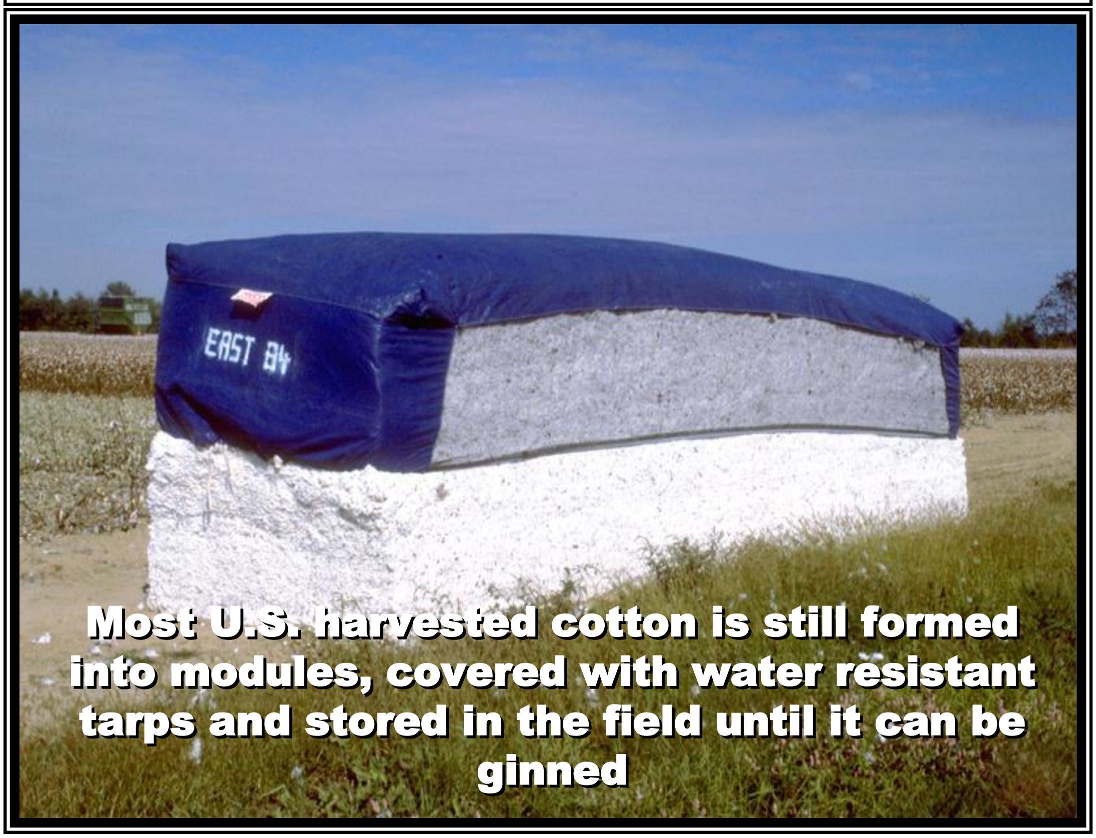

After the bloom falls off, a tiny ovary left on the cotton plant ripens and enlarges into a pod called a cotton boll


Cotton bolls open 50 to 70 days after bloom,
letting air in to dry the white, clean fiber
and fluff it for harvest


After leaves are removed to minimize
staining of the lint, the mature seed cotton
is ready to be harvested

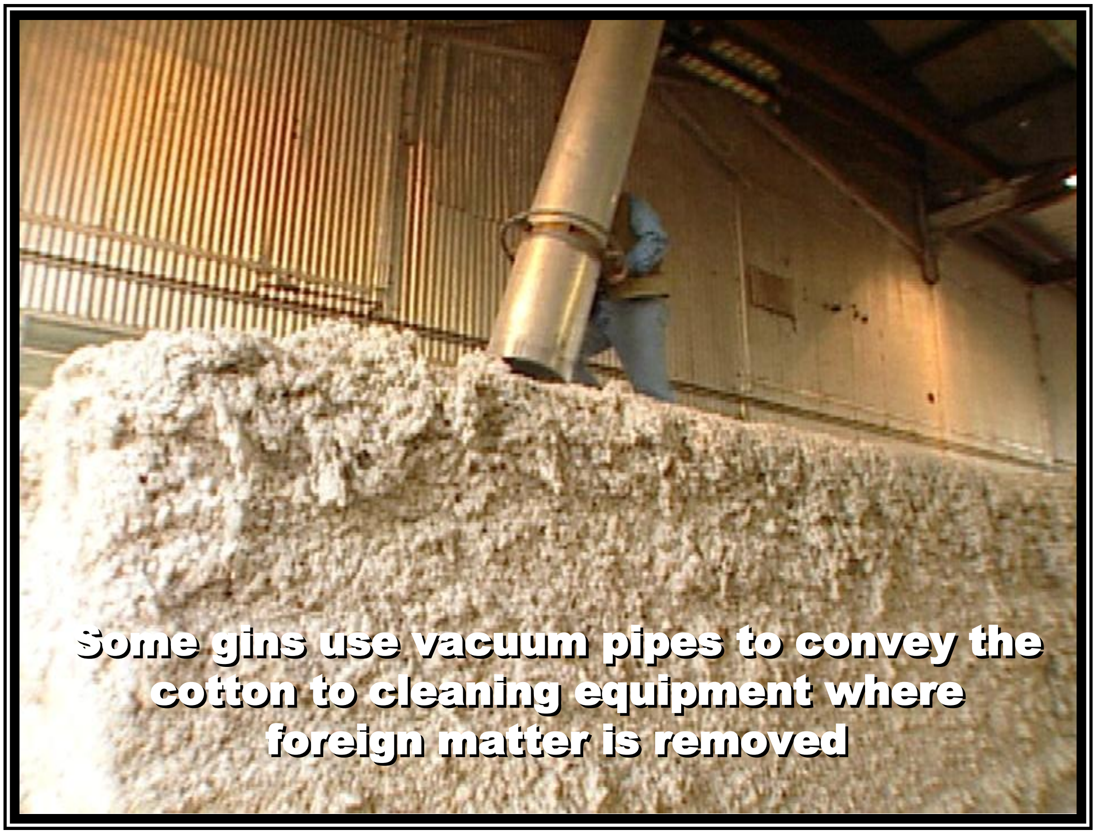

Cotton is entirely machine harvested in the U.S., beginning in July in South Texas and in October in more northern areas of the Belt
CASE IH
620

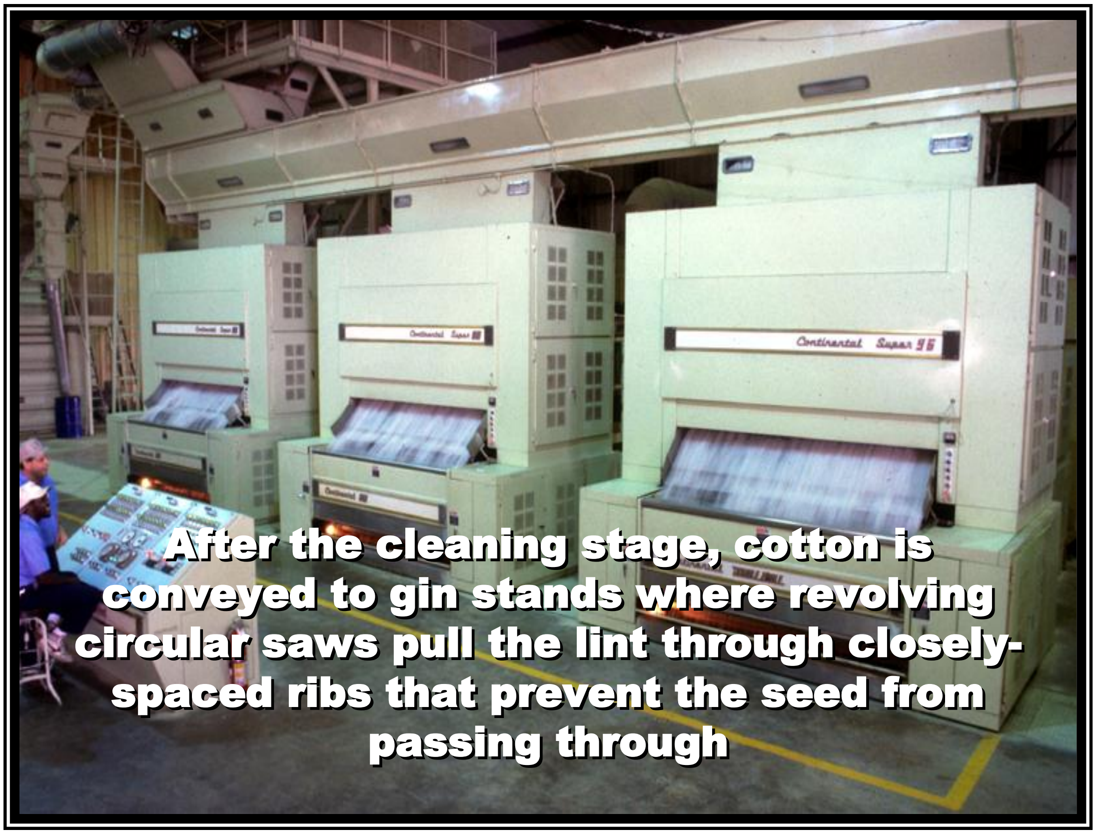

Cotton in some areas of Texas and Oklahoma is gathered by stripper harvesters which pluck the entire bolls from the cotton plant rather than picking the fiber from the bolls


EAST 84
Most U.S. harvested cotton is still formed into modules, covered with water resistant tarps and stored in the field until it can be ginned

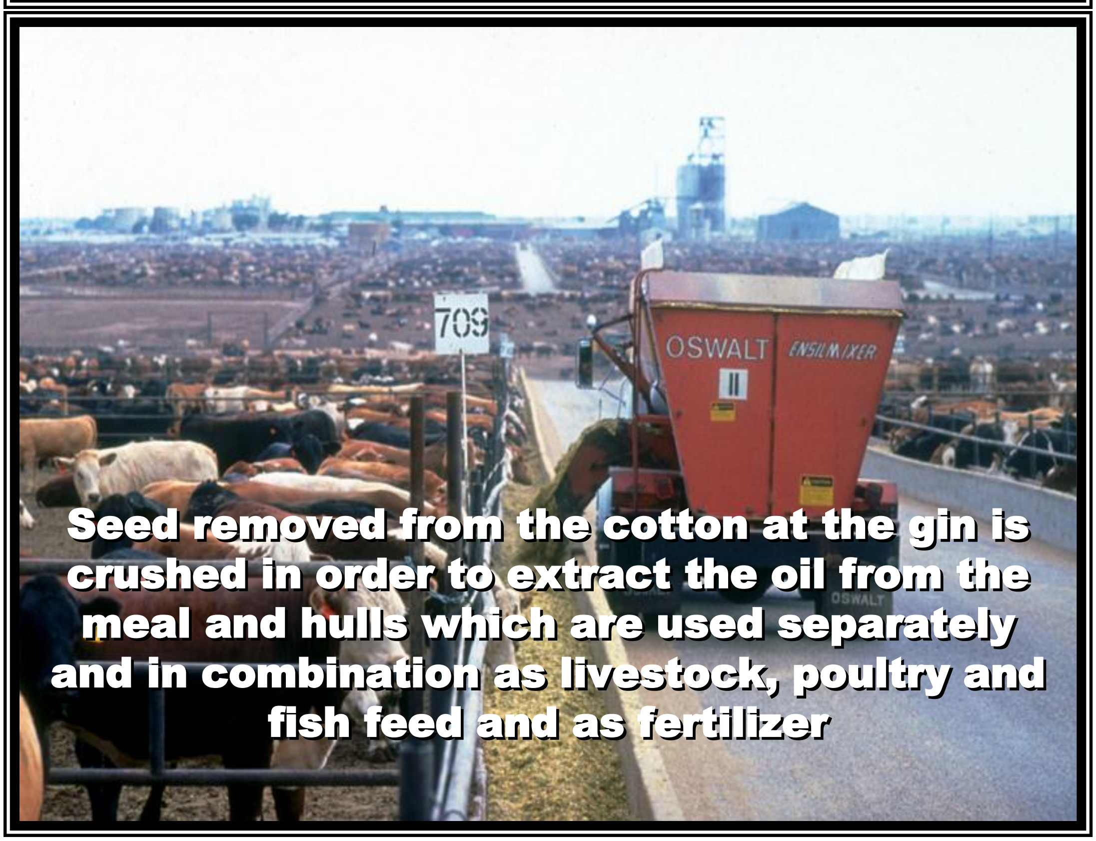

Cotton is transported to the gin
by module trucks


At many gins, cotton enters module feeders, which fluff up the cotton prior to conveyance to cleaners

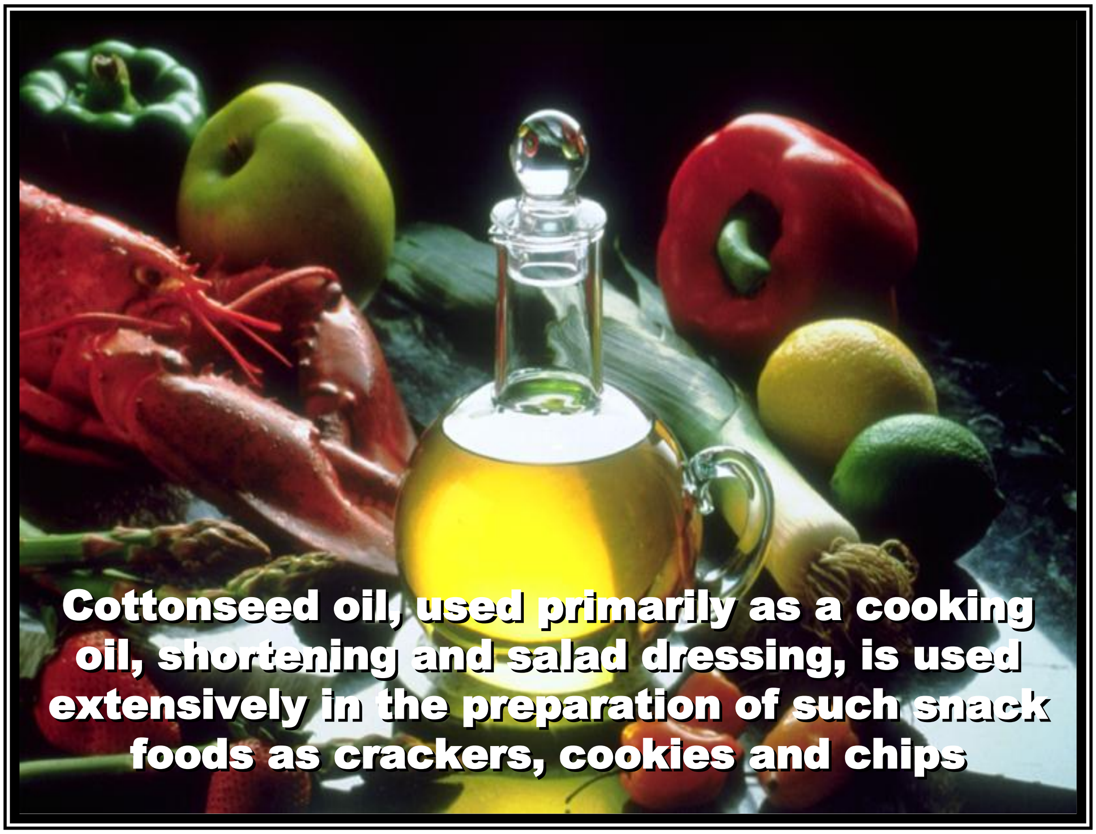

Some gins use vacuum pipes to convey the
cotton to cleaning equipment where
foreign matter is removed


Continental Super 95
After the cleaning stage, cotton is conveyed to gin stands where revolving circular saws pull the lint through closely-spaced ribs that prevent the seed from passing through

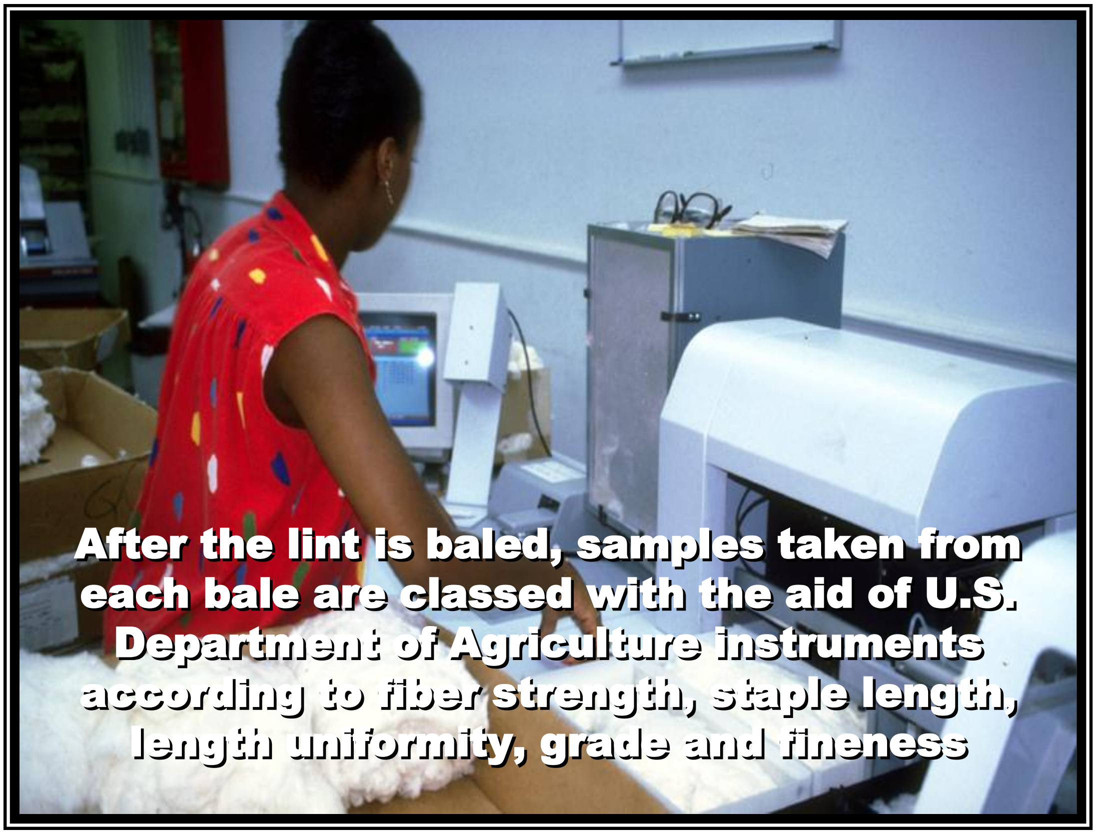
Some of today's high-capacity gins can turn out in one hour as many as 60 500-pound bales of lint -- the term used for fiber after the seeds have been removed at the gin

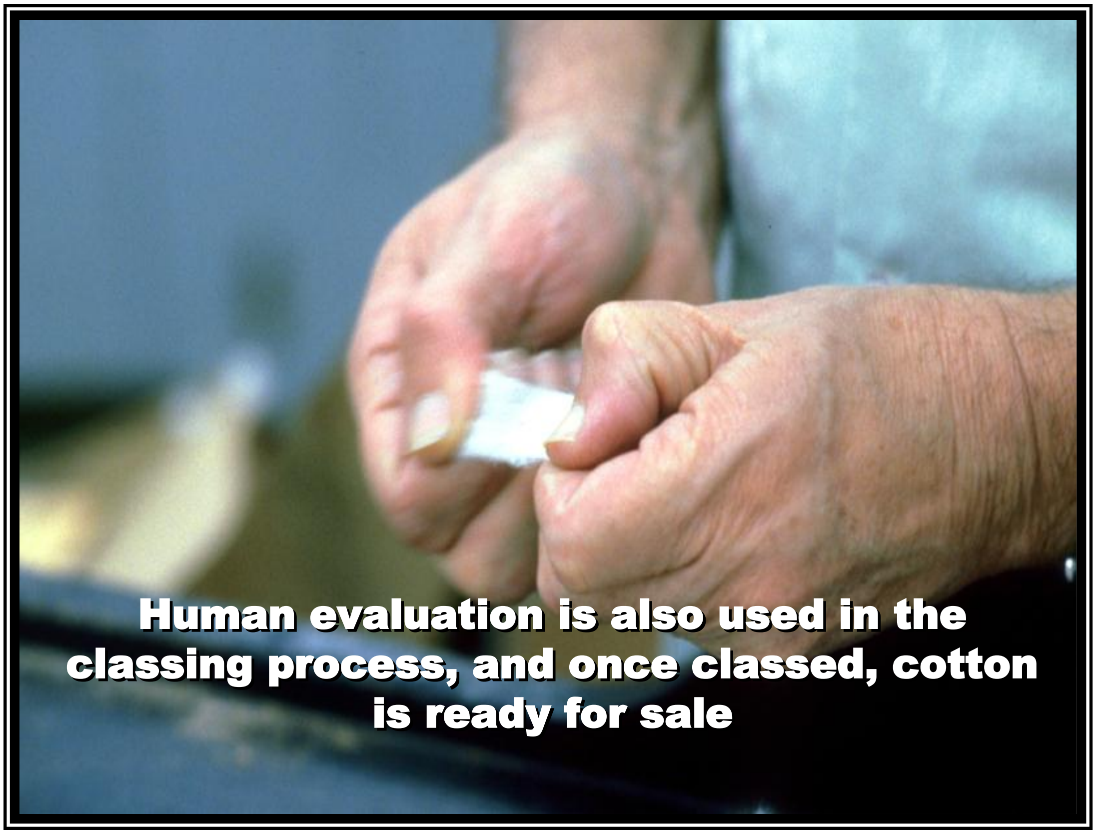


Seed removed from the cotton at the gin is crushed in order to extract the oil from the meal and hulls which are used separately and in combination as livestock, poultry and fish feed and as fertilizer

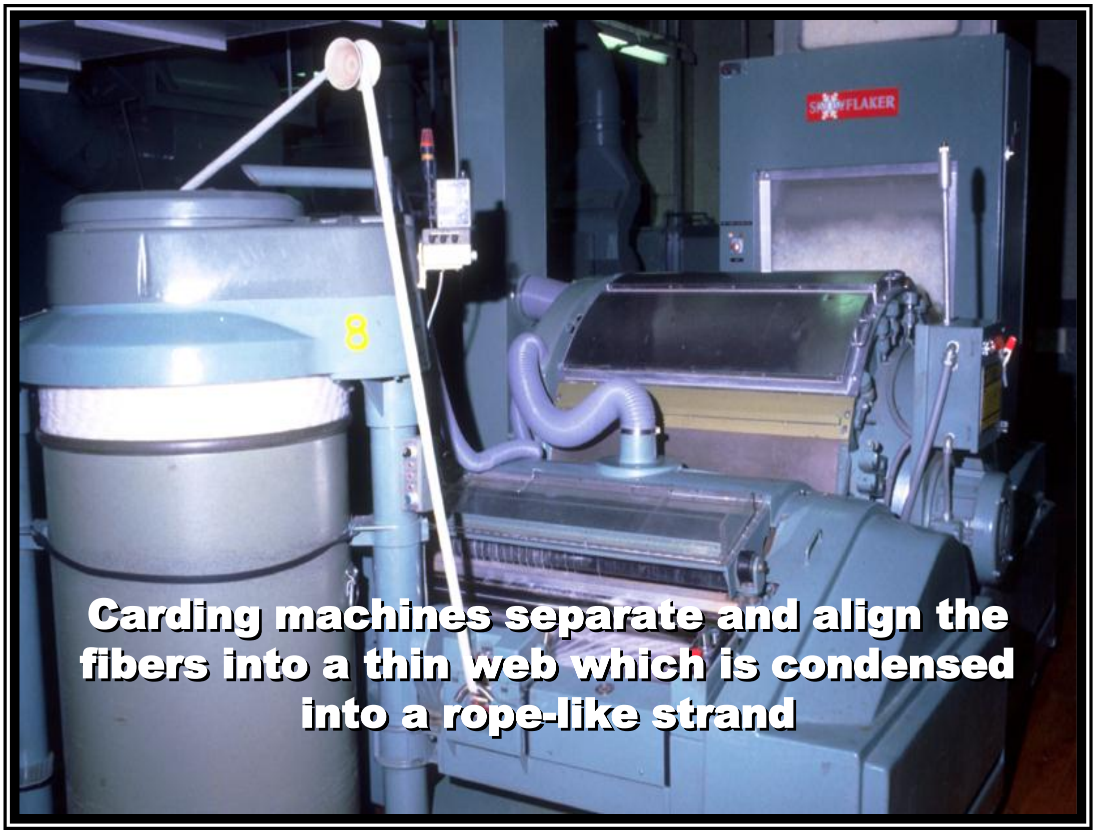

Cottonseed oil, used primarily as a cooking oil, shortening and salad dressing, is used extensively in the preparation of such snack foods as crackers, cookies and chips


Packaged bales of lint are stored in warehouses until time for shipment to U.S. or foreign textile mills

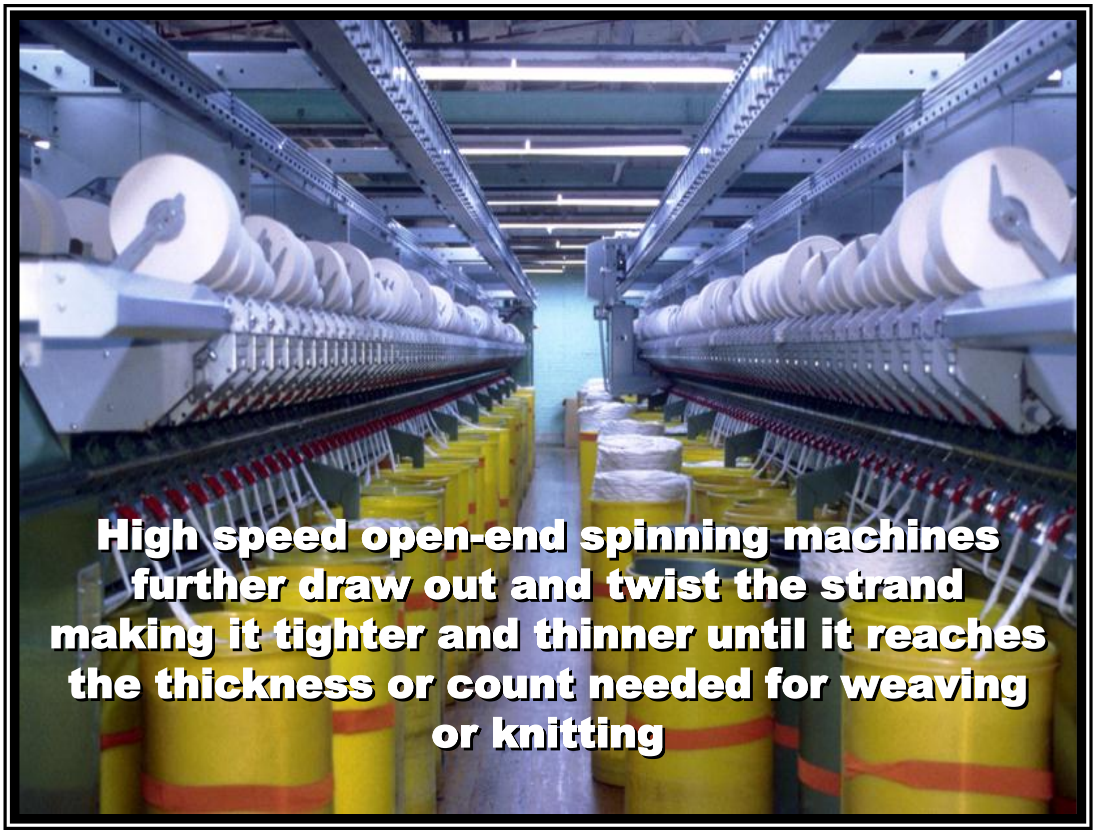

After the lint is baled, samples taken from
each bale are classed with the aid of U.S.
Department of Agriculture instruments
according to fiber strength, staple length,
length uniformity, grade and fineness

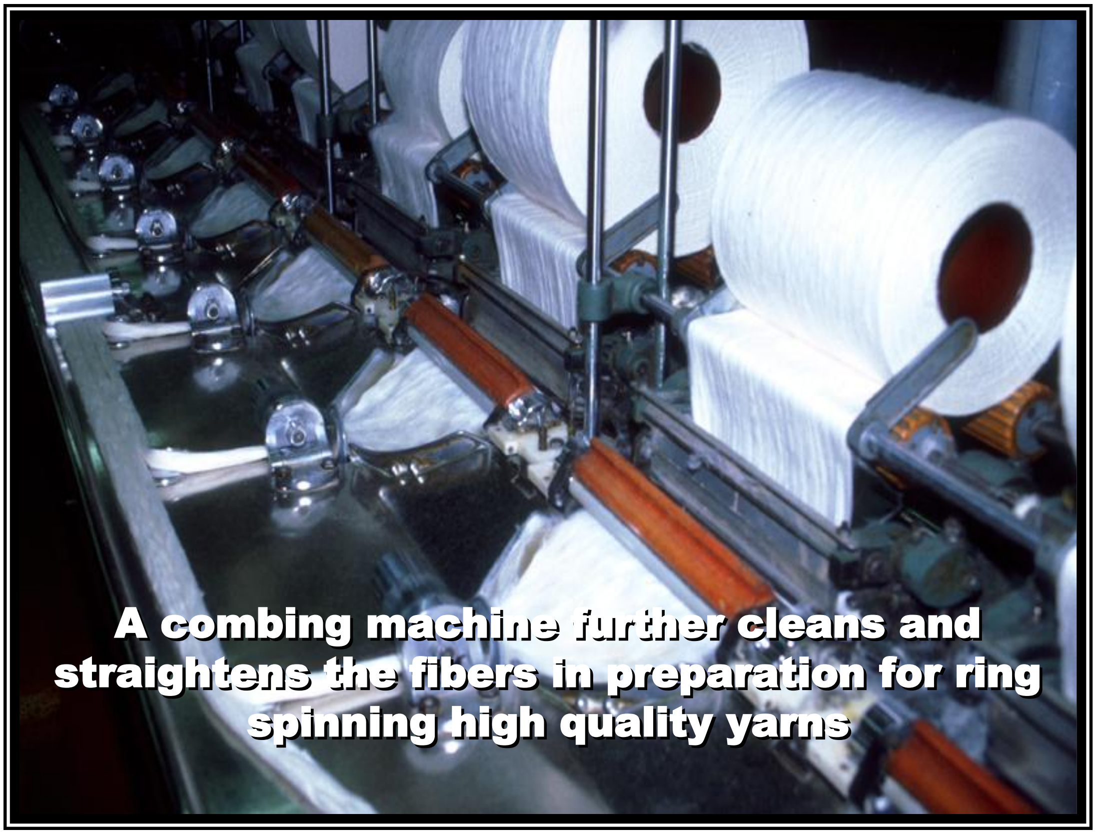

Human evaluation is also used in the classing process, and once classed, cotton is ready for sale

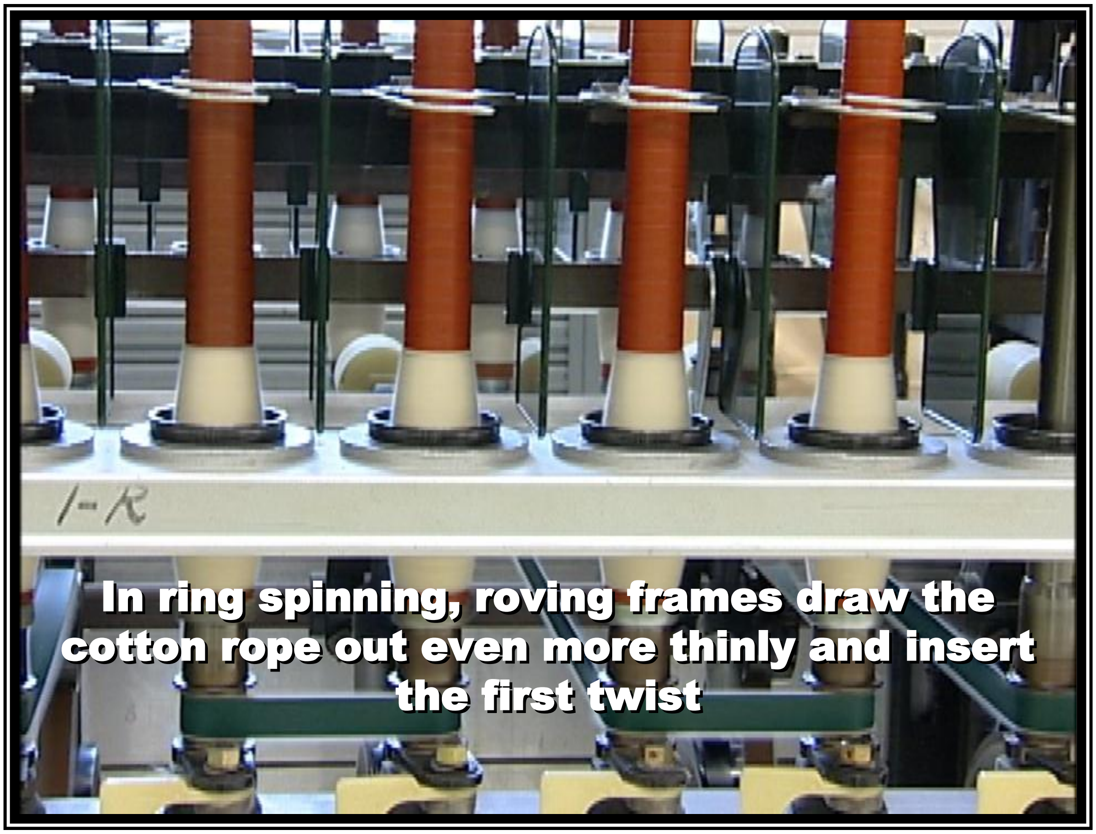
The opening of cotton bales at the textile mill is fully automated, and lint from several bales is combined to form a uniform blend of fiber

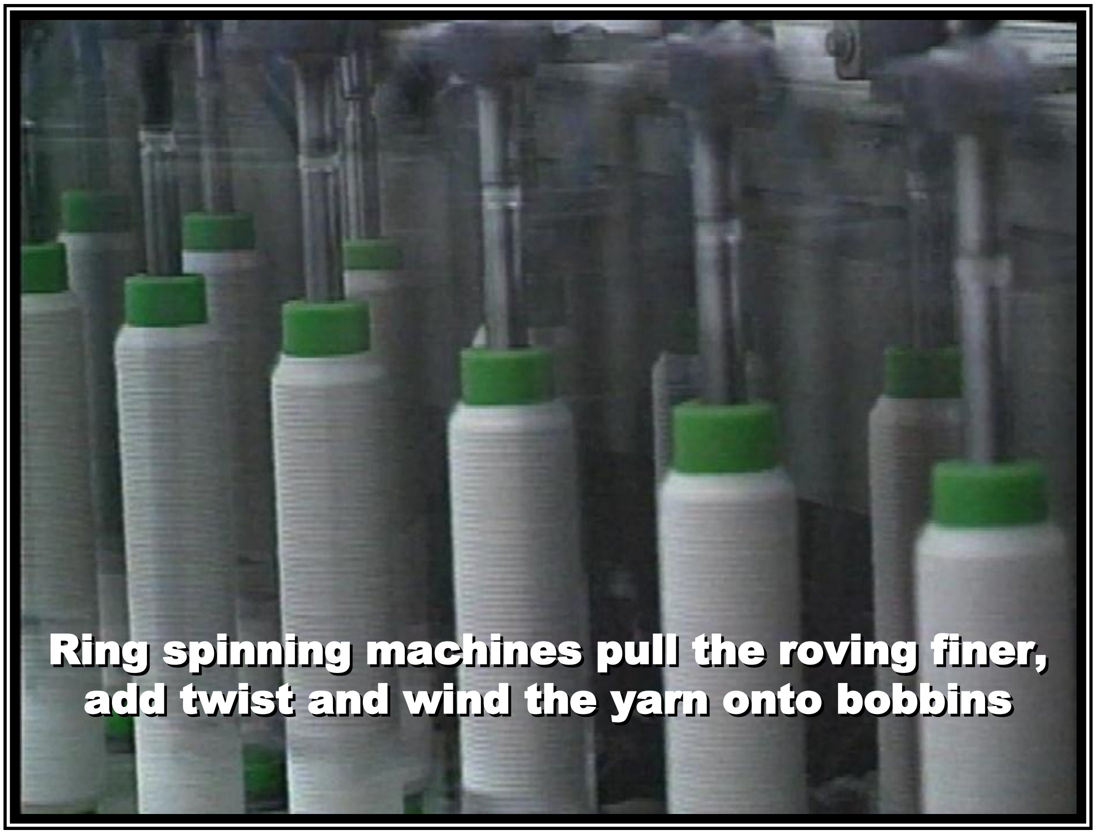

SNOWFLAKER
8
Carding machines separate and align the fibers into a thin web which is condensed into a rope-like strand

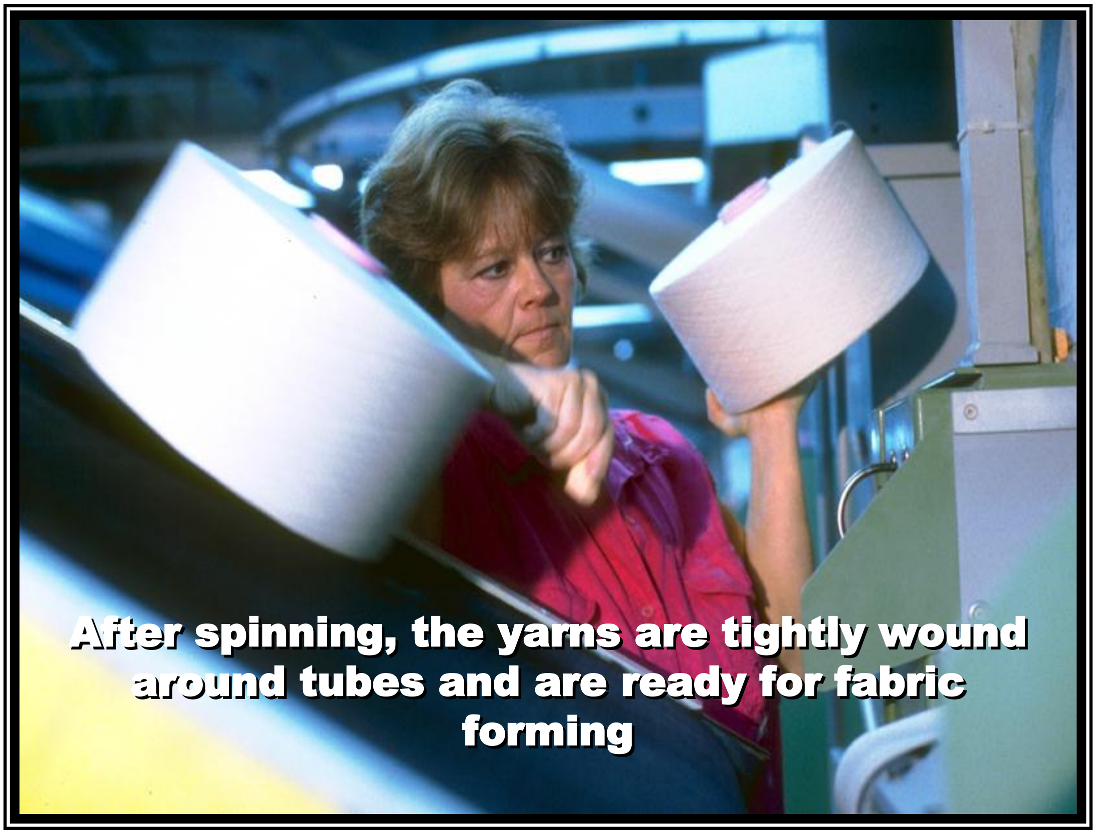

Drawing frames provide additional blending
and pull the soft rope thinner

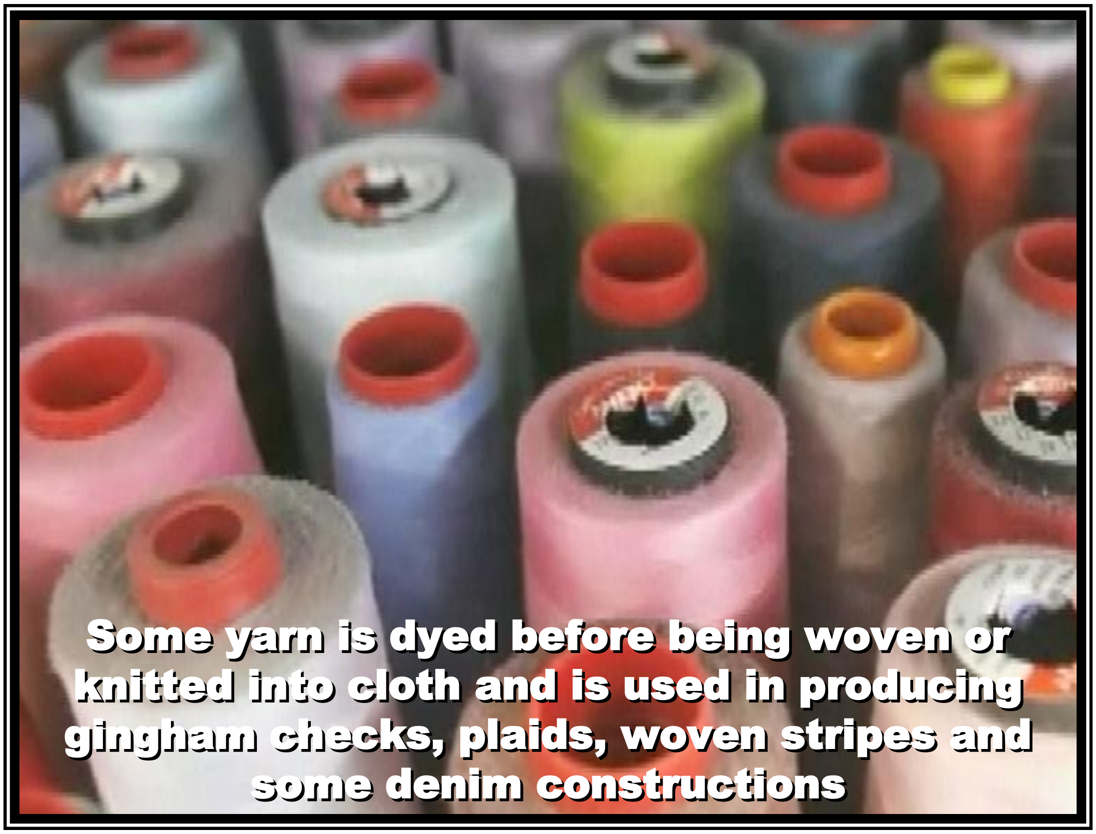

High speed open-end spinning machines
further draw out and twist the strand
making it tighter and thinner until it reaches
the thickness or count needed for weaving
or knitting


A combing machine further cleans and straightens the fibers in preparation for ring spinning high quality yarns


I-R
In ring spinning, roving frames draw the cotton rope out even more thinly and insert the first twist

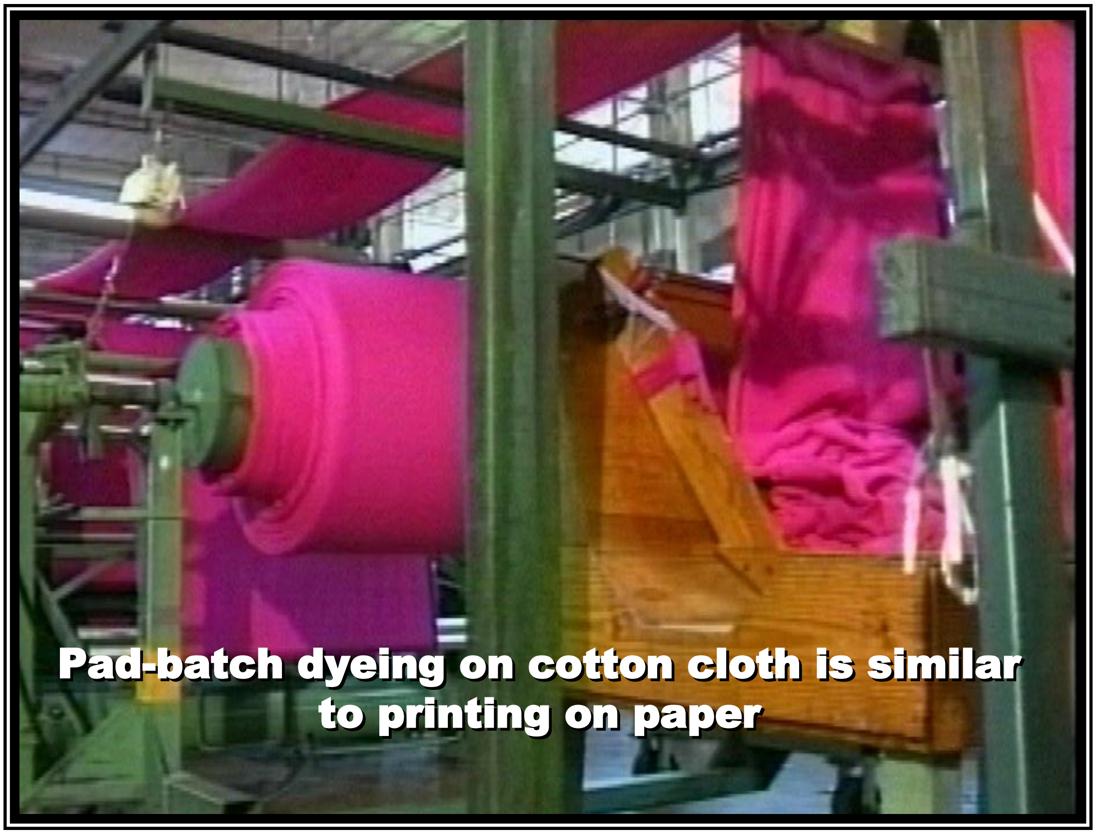

Ring spinning machines pull the roving finer,
add twist and wind the yarn onto bobbins

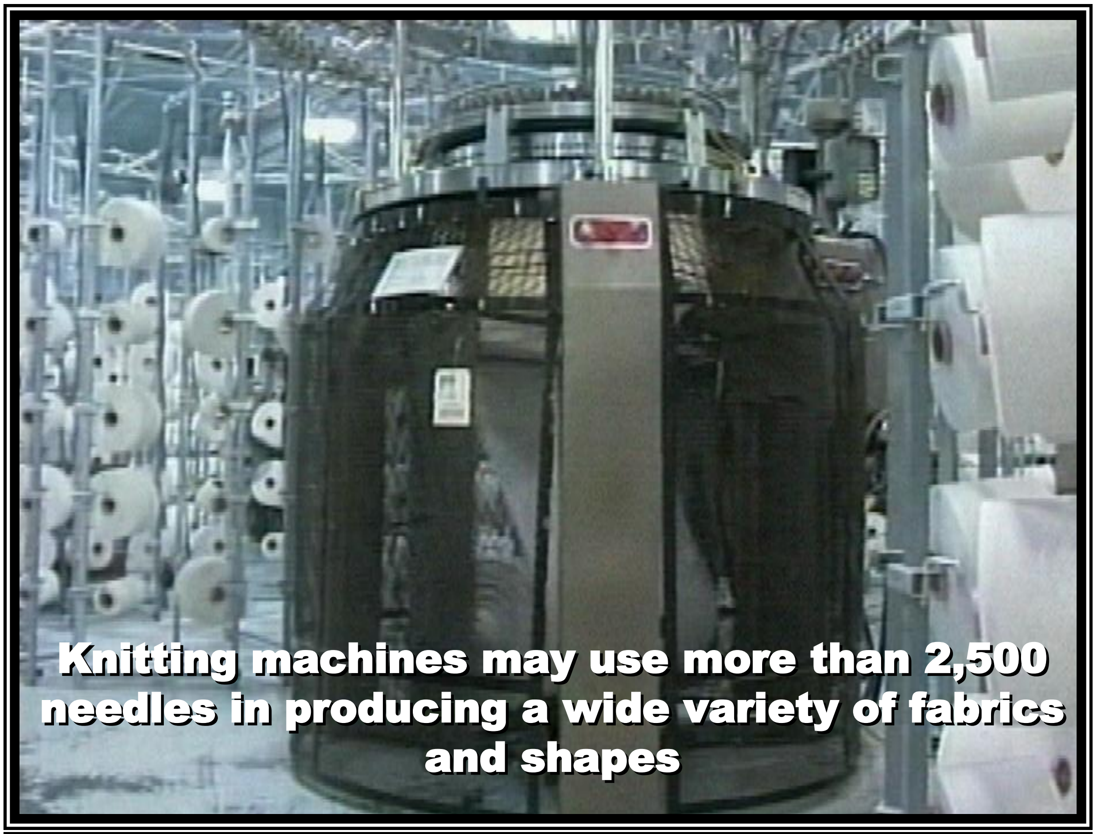

After spinning, the yarns are tightly wound around tubes and are ready for fabric forming

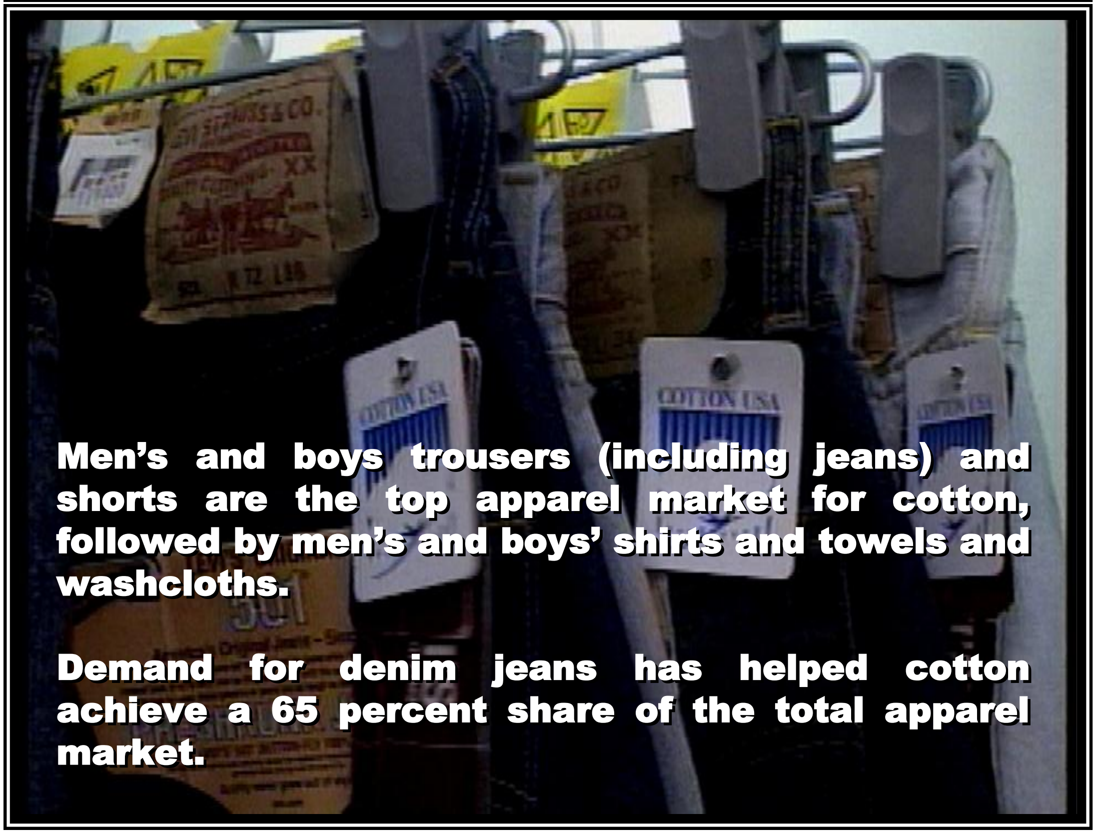

Some yarn is dyed before being woven or knitted into cloth and is used in producing gingham checks, plaids, woven stripes and some denim constructions


Thousands of cotton yarns laid side by side on large steel spools are treated prior to weaving.


Looms weave the yarn into fabric by
interlacing the lengthwise yarns (warp) and
the crosswise yarns (filling)


Pad-batch dyeing on cotton cloth is similar
to printing on paper


Knitting machines may use more than 2,500 needles in producing a wide variety of fabrics and shapes


Men's and boys trousers (including jeans) and shorts are the top apparel market for cotton, followed by men's and boys' shirts and towels and washcloths.
Demand for denim jeans has helped cotton achieve a 65 percent share of the total apparel market.
COTTON USA

National Cotton Council

OF AMERICA

Cotton on the Internet

Organization	Web Address
American Cotton Shippers Association	www.acsa-cotton.org
California Cotton Ginners and Growers Associations	www.ccgga.org
Cotton Board	www.cottonboard.org
Cotton Incorporated	www.cottoninc.com
Delta Council	www.deltacouncil.org/
National Cotton Ginners' Association	www.cotton.org/ncga/index.cfm
National Cottonseed Producers Association	www.cottonseed.com/
Plains Cotton Growers, Inc.	www.plainscotton.org
San Joaquin Valley Quality Cotton Growers Assoc.	www.sjvqualitycotton.com
Southern Cotton Ginners Association	www.southerncottonginners.org
Southern Rolling Plains Cotton Growers Assoc., Inc.	www.srpcotton.org
Southern Southeastern, Inc.	www.southern-southeastern.org
Supima	www.supima.com
Texas Cotton Association	www.tca-cotton.org
Texas Cotton Ginners Association	www.tcga.org
USDA Related Sites:	
USDA Agricultural Research Service	www.ars.usda.gov
USDA Animal Plant Health Inspection Service	www.aphis.usda.gov
USDA Economic Research Service	www.ers.usda.gov
USDA Farm Service Agency	www.fsa.usda.gov
USDA Foreign Agricultural Service	www.fas.usda.gov
USDA National Agricultural Statistical Service	www.nass.usda.gov
Media Related Sites:	
Cotton Farming magazine	www.cottonfarming.com/home/index.html
Cotton Grower magazine	www.cotton247.com/cg
Farm Progress publications	www.farmprogress.com/splash.aspx
Farm Press publications	deltafarmpress.com
Fiber2Fashion	news.fibre2fashion.com
Textile World magazine	www.textileworld.com
Lubbock Avalanche Journal	lubbockonline.com/agriculture/index.shtml
Memphis Commercial Appeal	www.commercialappeal.com/news/business/
Secondary sites for cotton and Ag-related news:	
AgricultureOnline	http://www.agriculture.com/ag/news/
AgWeb (includes Farm Journal)	http://www.agweb.com/News.aspx
DTN (includes Progressive Farmer)	http://www.dtnprogressivefarmer.com/
Reuters (cotton keyword search)	http://news.yahoo.com/top-stories/reuters
Google (cotton keyword search)	http://www.google.com/
Other websites: (from NCC site)	
Industry related	http://www.cotton.org/about/related-orgs.cfm
Industry members	http://www.cotton.org/about/member-sites.cfm

List of Key Cotton Acronyms

AAPA ......American Association of Port Authorities
ACP ....American Cotton Producers
ACRE ......Average Crop Revenue Election Program
ACSA.......American Cotton Shippers Assoc.
AGOA......African Growth and Opportunity Act
APFE ....American Pima Far Eastern Quote
APHIS .....Animal, Plant Health Inspection Service
ARS..........Agricultural Research Service
ATPA.......Andean Trade Preference Act
ATPDEA .Andean Trade Promotion and Drug Eradication Act
AWP ....Adjusted World Price
CAFTA....Central America Free Trade Agreement
CBI ....Caribbean Basin Initiative
CCC.........Commodity Credit Corporation
CCI ....Cotton Council International
CCP ....Counter-Cyclical Payment
CFR ....Cost and freight
CFTC.......Commodity Futures Trading Commission
CGA.........Cotton Growers Association
CGWA.....Cotton Growers Warehouse Assoc.
CI ....Cotton Incorporated
CIS...........Central Independent States
CITA........Committee for the Implementation of Textile Agreements
COPS.......Cotton Online Processing System
CRP ....Conservation Reserve Program
CWAA.....Cotton Warehouse Assoc. of America
DP ....Direct Payment
ELS..........Extra Long Staple
EMOT .....Eastern, Memphis, Orleans, and Texas
EWR........Electronic Warehouse Receipt
FAS..........Foreign Agricultural Service
FE ....Far Eastern
FMD ....Foreign Market Development
FOB ....Free on Board
FSA ....Farm Service Agency
FTA..........Free Trade Agreements
FTZ..........Free Trade Zones
GDP ....Gross Domestic Product
GIPSA .....Grain Inspection, Packers and Stockyards Administration
GSM ....General Sales Manager
HOPE ......Haitian Hemispheric Opportunity through Partnership for Encouragement Act
HVI ....High Volume Instrument
IATA........International Air Transport Assoc.
ICE ....Intercontinental Exchange
ICA ....International Cotton Association
ICAC ....International Cotton Advisory Committee
ISO...........International Organization for Standardization
KORUS ...Korea and US FTA
LASH.......Lighter Aboard Ship
LDP..........Loan Deficiency Payment
LFQ ....Lowest Foreign Quote
MAP ....Market Access Program
ME ....Memphis and Eastern
MOT ....Memphis, Orleans, and Texas
MYA ....Marketing Year Average
NCC ....National Cotton Council
NCGA......National Cotton Ginners Assoc.
NCTO ......National Council of Textile Org.
NTA ....National Textile Association
NYBOT ...New York Board of Trade
NYK.........New York, New York
OE............Open-End Spinning
P&D ....Premiums and Discounts
PBI ....Permanent Bale Identification Number
POP..........Producer’s Optional Payment
SE.............Southeast
SJV ....San Joaquin Valley
SME ....Square Meter Equivalents
STX..........South Texas
USWA......United States Warehouse Assoc.