

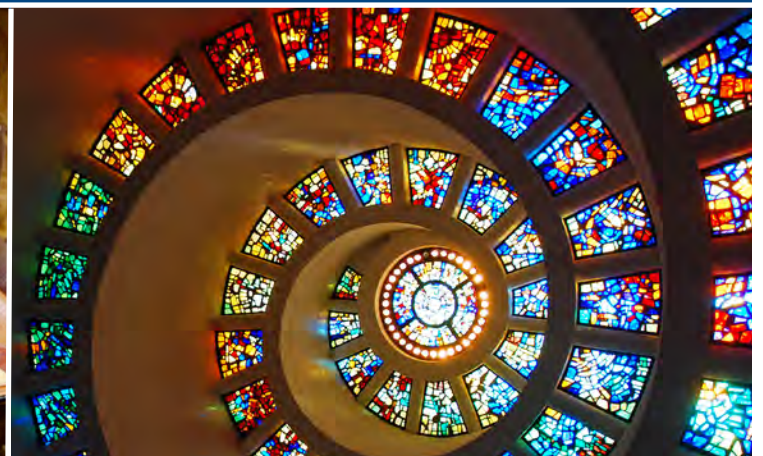


The Economic Outlook For U.S. Cotton 2023

Executive Summary

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Summary

This past year can be characterized as a year with significant uncertainty and volatility in the global economy and the world cotton market. The U.S. cotton industry continues to navigate an environment characterized by increased production costs, slumping consumer demand, and supply chain disruptions.

Modest economic growth is projected for the next two years with the International Monetary Fund (IMF) calling for global growth rates of 2.9% in 2023 and 3.1% in 2024. The projected growth represents a slowdown from the IMF estimates of 6.2% expansion in 2021 and 3.4% in 2022. The latest IMF projections take a similar tone regarding U.S. GDP with a 1.4% growth rate in 2023, followed by a slower growth rate of 1.0% in 2024. As with any projections, there are uncertainties and unknowns that can alter the eventual outcome. Current economic projections for the U.S. and global economies should be viewed with caution given the continued impacts of tighter monetary policy, high inflation, the Russia-Ukraine war, potential for severe COVID-19 health impacts in China, geopolitical tensions, and slower economic growth.

This summary includes world and individual country supply and demand estimates in Table 1 (pages 6 and 7) and the NCC Annual Planting Intentions survey results in Table 2 (page 8).

The complete 2023 Annual Outlook can be found on the NCC website at <https://www.cotton.org/econ/reports/annual-outlook.cfm>. With this report, National Cotton Council (NCC) staff hopes to present a thorough review of the current economic landscape and the prospects for the coming year.

U.S. Supply and Demand

- For the 2022/23 marketing year, U.S. growers planted 13.8 million acres of cotton, an increase of 22.7% from the previous year due to higher prices. Overall U.S. abandonment was 45.9%, as compared to 8.4% in 2021 and is the highest level on record. Due to extreme drought conditions in the Southwest, harvested acreage of 7.4 million acres was at the lowest level since 1983. U.S. production of 14.7 million bales was 2.8 million bales lower than in 2021/22.
- The reduced U.S. supply in 2022/23 along with weaker demand resulted in a lower export projection for 2022/23 as compared to the previous year. U.S. export sales were lower during the first half of the 2022/23 marketing year as compared to prior years.
- As compared to the average level of export sales commitments at the same time in 2017-2021, the current level of 9.9 million bales is 3.0 million bales lower. However, current sales as a percentage of total exports are 83.9% (9.9/11.8) as compared to the 2017-2021 average of 82.7%. Of the 9.9 million bales, 7.5 million bales were sold during the 2021/2022 marketing year (2.5 million carryover sales from the 2021/22 marketing year and 5.1 million forward sales made during the 2021/22 marketing year). Since August 1, 2022, net export sales commitments have only increased by 2.2 million bales.

- China's current U.S. sales commitment level of 2.1 million bales is 1.8 million bales lower than at the same time last year. In 2022, COVID-19 outbreaks and restrictions in China significantly reduced consumption.
- Pakistan is currently the 2nd largest export customer of U.S. cotton with 1.9 million bales in sales commitments. However, due to low foreign currency reserves in Pakistan, their ability to purchase imported goods is limited and their ability to fulfill current export sales commitments is unclear. As of January 26, 2023, 1.2 million bales of U.S. cotton had been sold to Pakistan but not shipped.
- Reductions in foreign reserves are also evident in countries such as Bangladesh, leading to concerns that that country could also face challenges when importing cotton. However, as compared to Pakistan, the potential number of bales at risk is lower (338 thousand bales currently sold but not shipped).
- U.S. mills are expected to consume 2.2 million bales during the 2022/23 marketing year as compared to 2.6 million bales in 2021/22. For the 2023/24 marketing year, U.S. mill use is projected to increase to 2.3 million. U.S. mills continue to be important and consistent customers of U.S. cotton.
- Looking ahead to the 2023/24 marketing year, production costs remain elevated and are only slightly lower than a year ago. According to USDA's Economic Research Service, U.S. cotton production costs increased by \$161 per acre from 2018 to 2022 – an increase of 20 cents per pound based on an average yield of 800 pounds per acre. Cotton producers will face difficult economic conditions in 2023 with lower cotton prices and high production costs.
- Cotton harvest-time futures prices in early February 2023 are 16.5% lower than a year ago, while prices of most competing commodities are relatively unchanged from a year ago. The cotton-to-corn and cotton-to-soybean price ratios are at the lowest level since the 2009 marketing year. Higher wheat prices have also resulted in a large increase in U.S. winter wheat plantings for the 2023 harvest season.
- The current economic signals are reflected in the 2023 survey results as many responses indicated a shift away from cotton to other competing commodities. For the 2023/24 marketing year, U.S. growers intend to plant 11.4 million acres, which is 17.0% lower than in 2022.
- To estimate U.S. production for 2023/24, the 5-year average (2018-2022) abandonment rate and yield was used for most states. In the Southwest, adjustments were applied to the 5-year average values to account for the 2022 experience as well as current drought conditions. For 2023/24, U.S. harvested area is estimated to be 8.8 million acres with an overall abandonment rate of 22.6%. 2023/24 U.S. production is estimated to be 15.7 million bales with an average yield of 853 pounds per acre, which includes 15.2 million upland bales and 466,000 ELS bales.

<i>U.S. Supply & Demand</i>	<i>2022/23</i>	<i>2023/24</i>
<i>Planted (million acres)</i>	13.8	11.4
<i>Abandonment</i>	45.9%	22.6%
<i>Harvested (million acres)</i>	7.4	8.8
<i>Lint Yield (lbs/harv acre)</i>	957	853
<i>Lint Production (million bales)</i>	14.7	15.7
<i>Cottonseed Production (million tons)</i>	4.5	4.8
<i>U.S. Mill Use (million bales)</i>	2.2	2.3
<i>U.S. Exports (million bales)</i>	11.8	12.5
<i>U.S. Ending Stocks (million bales)</i>	4.4	5.3

- For the 2023/24 marketing year, a projected increase in world consumption along with a larger U.S. supply results in a larger U.S. export projection as compared to 2022/23.
- For the 2022/23 marketing year, U.S. cottonseed production was estimated to be 4.5 million tons, down 0.9 million tons from the previous year. U.S. cottonseed production is projected to increase to 4.8 million tons for the 2023/24 marketing year.

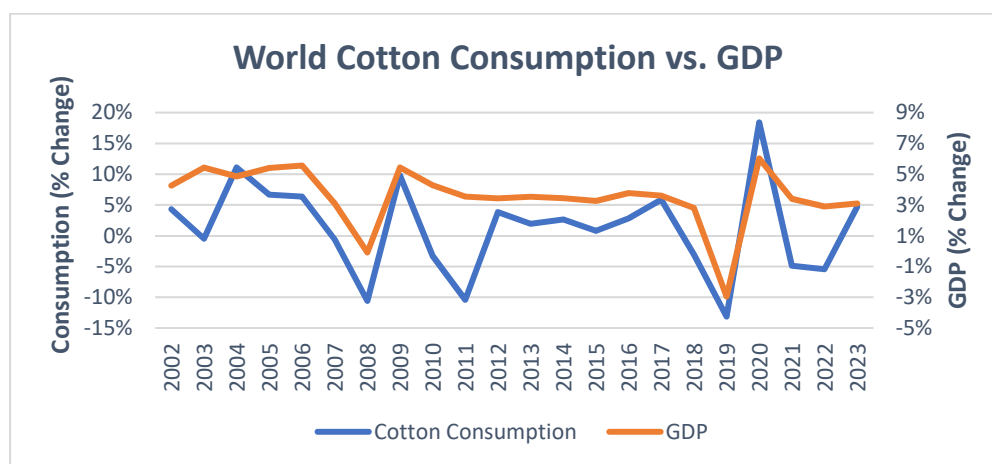
World Supply and Demand

- For the 2022/23 marketing year, world area declined by 1.2% to 78.9 million acres. World production was estimated to decline by 319 thousand bales to 115.4 million for the 2022/23 marketing year.
 - In 2022, China's acreage declined relative to 2021, but production increased by 1.2 million bales due to a record yield.
 - Production also increased in India, Brazil, and Turkey in 2022.
 - While the U.S. had the largest decline of 2.8 million bales in 2022, Pakistan also had a large reduction of 2.3 million bales mostly due to flooding and abandoned acres. Pakistan's 2022 production of 3.7 million bales was at the lowest level since 1983. Over the past four years, Pakistan's production has continued to trend downward. From 2019-2022, Pakistan's average production was 5.1 million bales. From 2008-2018, Pakistan's average production was 8.8 million bales. With a strong textile sector, Pakistan has increased their reliance on imported cotton.
- For the 2023/24 marketing year, world harvested area is projected to grow by 2.2% to 80.6 million acres. World production is projected to increase slightly to 115.9 million bales. Most major cotton producing countries except China and Turkey are expected to increase production in 2023.
 - The large projected decline for China is due to a lower yield as compared to 2022 and a slight decline in acreage. In Turkey, lower cotton acreage is expected due to relative returns of competing commodities. An increase in 2023 acreage is expected for Brazil and India resulting in higher production as compared to 2022.

World Production (million bales)

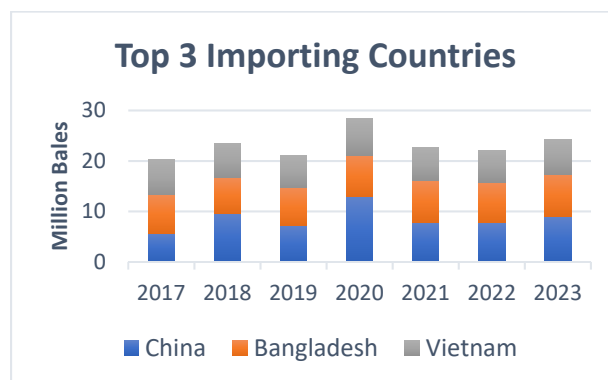
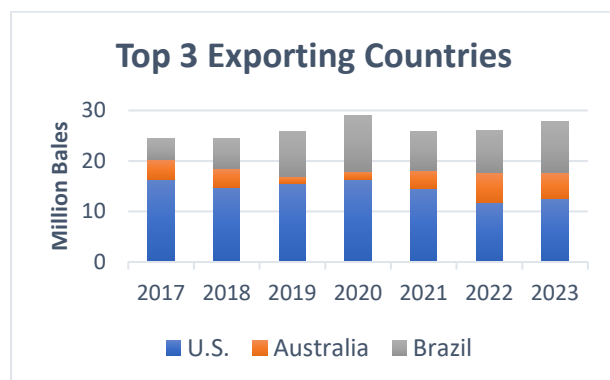
	2021/22	2021/22	2022/23	2022/23	2023/24	2023/24
		Change		Change		Change
U.S.	17.5	+2.9	14.7	-2.8	15.7	+1.0
Australia	5.8	+3.0	5.0	-0.8	5.1	+0.1
Brazil	11.7	+0.9	13.3	+1.6	13.5	+0.2
China	26.8	-2.8	28.0	+1.2	25.8	-2.2
India	24.4	-3.2	26.5	+2.5	27.4	+0.9
Pakistan	6.0	+1.5	3.7	-2.3	4.6	+0.9
Turkey	3.8	+0.9	4.9	+1.1	4.0	-0.9
World	115.7	+4.2	115.4	-0.3	115.9	+0.5

- For the 2022/23 marketing year, world consumption is projected to decline by 6.6 million bales to 110.9 million based on the January 2023 USDA estimate. Several factors have contributed to the decline in cotton demand including declining global economic conditions, high inflation levels, COVID-19 lockdowns in China, low foreign currency reserves, letter of credit issues, lower profit margins for spinning mills, reduced yarn orders, and weaker cotton demand.
- Overall, the outlook for world cotton demand for the 2023/24 marketing year takes on a more positive tone with the expectation of improved global economic conditions. For the 2023/24 marketing year, world consumption is projected to increase by 4.7% to 116.1 million bales. The removal of COVID-19 restrictions in China should provide a boost to cotton consumption in 2023. IMF has projected an increase in China's growth rate from 3.0% in 2022 to 5.2% in 2023.
- Historical data shows a strong correlation between cotton consumption and economic growth, or GDP. Historical data also shows a large recovery in consumption in the year following a large decline. With the expectation of improving economic conditions and lower inflation in the latter half of 2023, cotton consumption is projected to increase in most cotton consuming countries during the 2023/24 marketing year.



*Adjusted to align GDP by calendar year and consumption by marketing year (ex. 2023 GDP & 2022/23 Consumption).

- For the 2022/23 marketing year, world cotton trade dropped to 41.5 million bales. The share of 2022/23 world exports for the top three exporting countries would be 28.5% for the U.S., 20.0% for Brazil, and 14.2% for Australia. From 2017-2021, the average U.S. market share of world exports was 36.6%. Lower U.S. supplies combined with increased production in Brazil has reduced the U.S. market share.
- For the 2023/24 marketing year, world trade is projected to increase to 44.2 million bales. The share of 2023/24 world exports for the top three exporting countries would be 28.3% for the U.S., 22.8% for Brazil, and 11.8% for Australia.



- With world production exceeding consumption in the 2022/23 marketing year, ending stocks are projected to increase by 4.8 million bales to 90.1 million, resulting in a stocks-to-use ratio of 81.3%. For the 2023/24 marketing year, higher world consumption and trade and only a slight increase in production results in a decline in ending stocks to 89.9 million bales.

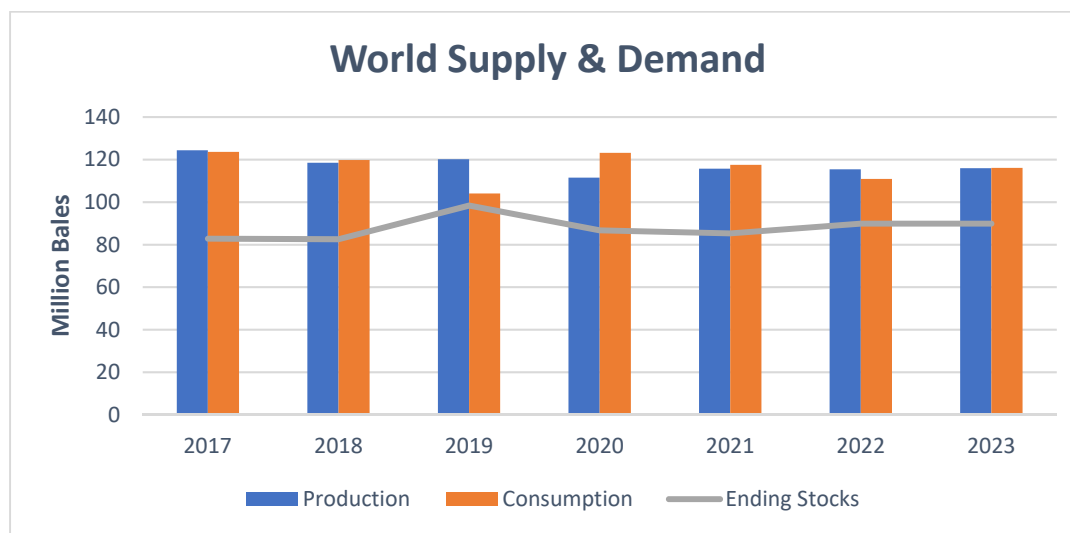


Table 1 - Balance Sheet for Selected Countries & Regions

World	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	85,165	77,505	79,845	78,864	80,602
Yield (Pounds/Acre)	677	690	696	702	690
Production (Thou Bales)	120,163	111,489	115,715	115,396	115,936
Trade (Thou Bales)	40,703	48,693	42,889	41,626	44,157
Mill Use (Thou Bales)	104,064	123,188	117,501	110,853	116,063
Ending Stocks (Thou Bales)	98,406	86,733	85,340	90,133	89,913
United States	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	11,498	8,216	10,272	7,440	8,836
Yield (Pounds/Acre)	831	853	819	947	853
Production (Thou Bales)	19,913	14,608	17,523	14,680	15,703
Net Exports (Thou Bales)	15,509	16,350	14,617	11,795	12,512
Mill Use (Thou Bales)	2,150	2,400	2,550	2,200	2,300
Ending Stocks (Thou Bales)	7,250	3,150	3,750	4,400	5,290
Australia	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	148	680	1,483	1,236	1,273
Yield (Pounds/Acre)	2,023	1,978	1,862	1,943	1,927
Production (Thou Bales)	625	2,800	5,750	5,000	5,110
Net Exports (Thou Bales)	1,359	1,581	3,577	5,900	5,200
Mill Use (Thou Bales)	10	10	10	10	35
Ending Stocks (Thou Bales)	1,198	2,507	4,860	4,140	4,015
Bangladesh	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	111	109	111	114	114
Yield (Pounds/Acre)	613	649	652	655	653
Production (Thou Bales)	142	147	151	155	155
Net Imports (Thou Bales)	7,500	8,300	8,200	8,000	8,367
Mill Use (Thou Bales)	6,900	8,500	8,500	8,200	8,500
Ending Stocks (Thou Bales)	2,515	2,452	2,293	2,238	2,250
Brazil	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	4,114	3,385	3,954	4,028	4,205
Yield (Pounds/Acre)	1,608	1,534	1,423	1,585	1,538
Production (Thou Bales)	13,780	10,820	11,720	13,300	13,473
Net Exports (Thou Bales)	8,932	11,002	7,703	8,285	10,024
Mill Use (Thou Bales)	2,700	3,100	3,300	3,200	3,300
Ending Stocks (Thou Bales)	14,404	11,119	11,836	13,651	13,800
China	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	8,401	7,907	7,660	7,413	7,334
Yield (Pounds/Acre)	1,568	1,797	1,679	1,813	1,691
Production (Thou Bales)	27,450	29,600	26,800	28,000	25,844
Net Imports (Thou Bales)	6,980	12,850	7,720	7,625	8,950
Mill Use (Thou Bales)	34,000	41,000	35,000	35,500	36,800
Ending Stocks (Thou Bales)	36,344	37,794	37,314	37,439	35,433
India	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	33,111	32,830	30,023	32,123	32,765
Yield (Pounds/Acre)	413	404	390	396	401
Production (Thou Bales)	28,500	27,600	24,400	26,500	27,354
Net Exports (Thou Bales)	920	5,345	2,743	1,400	3,050
Mill Use (Thou Bales)	20,500	26,000	25,000	22,500	23,750
Ending Stocks (Thou Bales)	15,684	11,939	8,596	11,196	11,750

Table 1 – Selected Countries and Regions (Continued)

Indonesia	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	5	5	5	5	5
Yield (Pounds/Acre)	291	194	194	194	194
Production (Thou Bales)	3	2	2	2	2
Net Imports (Thou Bales)	2,508	2,301	2,564	2,195	2,489
Mill Use (Thou Bales)	2,400	2,450	2,600	2,200	2,500
Ending Stocks (Thou Bales)	643	496	462	459	450
Mexico	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	556	358	381	494	445
Yield (Pounds/Acre)	1,355	1,366	1,539	1,360	1,402
Production (Thou Bales)	1,570	1,020	1,220	1,400	1,299
Net Imports (Thou Bales)	-70	440	556	500	792
Mill Use (Thou Bales)	1,475	1,700	1,850	1,800	1,850
Ending Stocks (Thou Bales)	709	454	370	109	325
Pakistan	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	6,054	5,436	4,942	4,448	4,359
Yield (Pounds/Acre)	492	397	583	399	503
Production (Thou Bales)	6,200	4,500	6,000	3,700	4,564
Net Imports (Thou Bales)	3,945	5,375	4,450	4,975	5,346
Mill Use (Thou Bales)	9,500	10,800	10,700	9,000	9,750
Ending Stocks (Thou Bales)	3,115	2,165	1,890	1,540	1,675
Turkey	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	1,408	865	1,112	1,371	1,150
Yield (Pounds/Acre)	1,176	1,610	1,640	1,715	1,655
Production (Thou Bales)	3,450	2,900	3,800	4,900	3,965
Net Imports (Thou Bales)	4,222	4,742	4,957	3,600	4,170
Mill Use (Thou Bales)	6,600	7,700	8,700	8,000	8,400
Ending Stocks (Thou Bales)	2,766	2,708	2,765	3,265	3,000
Uzbekistan	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	2,595	2,619	2,619	2,644	2,512
Yield (Pounds/Acre)	451	583	495	490	501
Production (Thou Bales)	2,440	3,180	2,700	2,700	2,621
Net Exports (Thou Bales)	441	425	15	25	-15
Mill Use (Thou Bales)	2,260	3,120	3,140	2,750	2,950
Ending Stocks (Thou Bales)	2,484	2,119	1,664	1,589	1,275
Vietnam	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	2	2	2	2	2
Yield (Pounds/Acre)	583	583	583	583	583
Production (Thou Bales)	3	3	3	3	3
Net Imports (Thou Bales)	6,481	7,288	6,631	6,400	6,822
Mill Use (Thou Bales)	6,600	7,300	6,700	6,400	6,800
Ending Stocks (Thou Bales)	1,097	1,088	1,022	1,025	1,050
West Africa	19/20	20/21	21/22	22/23	23/24
Harvested Area (Thou Acres)	7,670	5,923	7,680	7,710	7,864
Yield (Pounds/Acre)	363	392	374	337	365
Production (Thou Bales)	5,802	4,835	5,980	5,418	5,974
Net Exports (Thou Bales)	4,622	5,489	6,014	5,194	5,406
Mill Use (Thou Bales)	103	103	103	103	103
Ending Stocks (Thou Bales)	2,500	1,743	1,614	1,735	2,200

Table 2 - Prospective 2023 U.S. Cotton Area

	2022 Actual (Thou.) 1/	2023 Intended (Thou.) 2/	Percent Change
SOUTHEAST	2,662	2,410	-9.5%
Alabama	435	379	-12.9%
Florida	106	76	-27.9%
Georgia	1,290	1,275	-1.1%
North Carolina	470	353	-25.0%
South Carolina	270	249	-7.8%
Virginia	91	78	-14.6%
MID-SOUTH	2,060	1,727	-16.2%
Arkansas	640	527	-17.7%
Louisiana	195	156	-19.8%
Mississippi	530	374	-29.4%
Missouri	360	357	-0.7%
Tennessee	335	312	-7.0%
SOUTHWEST	8,685	6,984	-19.6%
Kansas	165	168	1.7%
Oklahoma	670	631	-5.8%
Texas	7,850	6,185	-21.2%
WEST	173	115	-33.7%
Arizona	88	78	-10.9%
California	20	11	-43.3%
New Mexico	65	25	-61.7%
TOTAL UPLAND	13,580	11,235	-17.3%
TOTAL ELS	183	184	0.5%
Arizona	15	17	15.9%
California	116	106	-8.5%
New Mexico	19	21	12.0%
Texas	33	39	18.2%
ALL COTTON	13,763	11,419	-17.0%

1/ USDA-NASS

2/ National Cotton Council