Discover
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Initiative

# COTTON :
## Review of the World Situation

International
Cotton
Advisory
Committee

Volume 68 - Number 4
March-April 2015

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ICAC

# SUPPLY AND DISTRIBUTION OF COTTON

## April 1, 2015

Seasons begin on August 1

| | 2010/11 | 2011/12 | 2012/13 | 2013/14 Est. | 2014/15 Proj. | 2015/16 Proj. |
|---|---|---|---|---|---|---|
| | Million Metric Tons | | | | | |
| **BEGINNING STOCKS** | | | | | | |
| **WORLD TOTAL** | **8.613** | **9.476** | **14.390** | **16.829** | **19.485** | **21.77** |
| CHINA | 2.688 | 2.087 | 6.181 | 9.607 | 12.074 | 12.15 |
| USA | 0.642 | 0.566 | 0.729 | 0.903 | 0.651 | 1.08 |
| **PRODUCTION** | | | | | | |
| **WORLD TOTAL** | **25.425** | **27.820** | **26.667** | **26.270** | **26.428** | **23.99** |
| INDIA | 5.865 | 6.239 | 6.205 | 6.770 | 6.749 | 6.45 |
| CHINA | 6.400 | 7.400 | 7.300 | 6.929 | 6.444 | 5.40 |
| USA | 3.942 | 3.391 | 3.770 | 2.811 | 3.549 | 3.08 |
| PAKISTAN | 1.948 | 2.311 | 2.002 | 2.076 | 2.300 | 2.05 |
| BRAZIL | 1.960 | 1.877 | 1.310 | 1.705 | 1.511 | 1.48 |
| UZBEKISTAN | 0.910 | 0.880 | 1.000 | 0.940 | 0.940 | 0.92 |
| OTHERS | 4.401 | 5.722 | 5.080 | 5.041 | 4.935 | 4.61 |
| **CONSUMPTION** | | | | | | |
| **WORLD TOTAL** | **24.508** | **22.821** | **23.765** | **23.486** | **24.143** | **24.55** |
| CHINA | 9.580 | 8.635 | 8.290 | 7.531 | 7.905 | 7.94 |
| INDIA | 4.470 | 4.231 | 4.817 | 5.042 | 5.244 | 5.27 |
| PAKISTAN | 2.100 | 2.217 | 2.416 | 2.271 | 2.308 | 2.37 |
| EAST ASIA | 1.832 | 1.776 | 2.131 | 2.302 | 2.353 | 2.49 |
| EUROPE & TURKEY | 1.550 | 1.495 | 1.555 | 1.605 | 1.525 | 1.59 |
| BRAZIL | 0.958 | 0.897 | 0.910 | 0.871 | 0.838 | 0.85 |
| USA | 0.849 | 0.718 | 0.762 | 0.773 | 0.795 | 0.81 |
| CIS | 0.577 | 0.550 | 0.561 | 0.590 | 0.599 | 0.60 |
| OTHERS | 2.592 | 2.301 | 2.324 | 2.502 | 2.578 | 2.63 |
| **EXPORTS** | | | | | | |
| **WORLD TOTAL** | **7.729** | **9.847** | **10.125** | **8.867** | **7.390** | **7.68** |
| USA | 3.130 | 2.526 | 2.836 | 2.293 | 2.330 | 2.28 |
| INDIA | 1.085 | 2.159 | 1.685 | 2.014 | 1.089 | 1.38 |
| AUSTRALIA | 0.545 | 1.010 | 1.305 | 1.037 | 0.560 | 0.40 |
| BRAZIL | 0.435 | 1.043 | 0.938 | 0.485 | 0.676 | 0.71 |
| CFA ZONE | 0.476 | 0.597 | 0.828 | 0.927 | 0.846 | 0.98 |
| UZBEKISTAN | 0.600 | 0.550 | 0.653 | 0.650 | 0.605 | 0.59 |
| **IMPORTS** | | | | | | |
| **WORLD TOTAL** | **7.716** | **9.749** | **9.662** | **8.740** | **7.390** | **7.68** |
| CHINA | 2.609 | 5.342 | 4.426 | 3.075 | 1.538 | 1.82 |
| EAST ASIA | 1.825 | 1.998 | 2.352 | 2.341 | 2.532 | 2.60 |
| EUROPE & TURKEY | 0.973 | 0.724 | 0.833 | 1.082 | 0.952 | 0.86 |
| BANGLADESH | 0.843 | 0.680 | 0.631 | 0.987 | 0.965 | 0.97 |
| PAKISTAN | 0.314 | 0.173 | 0.470 | 0.402 | 0.367 | 0.38 |
| **TRADE IMBALANCE 1/** | **-0.013** | **-0.098** | **-0.463** | **-0.128** | **0.000** | **0.00** |
| **STOCKS ADJUSTMENT 2/** | **-0.041** | **0.013** | **0.000** | **0.000** | **0.001** | **0.00** |
| **ENDING STOCKS** | | | | | | |
| **WORLD TOTAL** | **9.476** | **14.390** | **16.829** | **19.485** | **21.771** | **21.21** |
| CHINA | 2.087 | 6.181 | 9.607 | 12.074 | 12.146 | 11.42 |
| USA | 0.566 | 0.729 | 0.903 | 0.651 | 1.078 | 1.08 |
| **ENDING STOCKS/MILL USE (%)** | | | | | | |
| **WORLD-LESS-CHINA 3/** | **50** | **58** | **47** | **46** | **59** | **59** |
| **CHINA 4/** | **22** | **72** | **116** | **160** | **154** | **144** |
| **COTLOOK A INDEX 5/** | **164** | **100** | **88** | **91** | | |

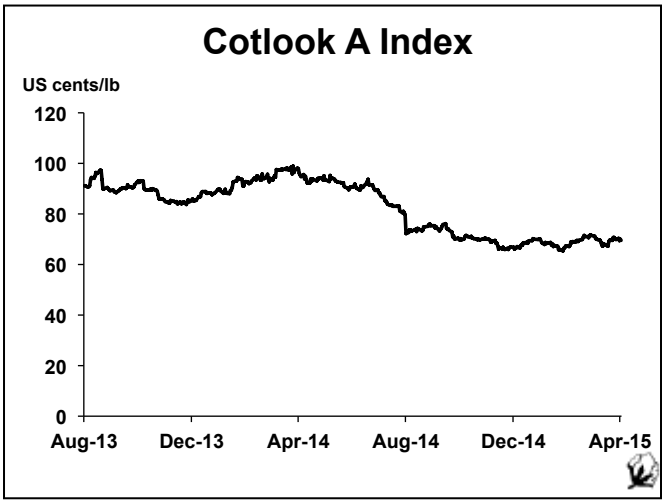
1/ The inclusion of linters and waste, changes in weight during transit, differences in reporting periods and measurement error account for differences between world imports and exports.
2/ Difference between calculated stocks and actual; amounts for forward seasons are anticipated.
3/ World-less-China's ending stocks divided by World-less-China's mill use, multiplied by 100.
4/ China's ending stocks divided by China's mill use, multiplied by 100.
5/ U.S. cents per pound.

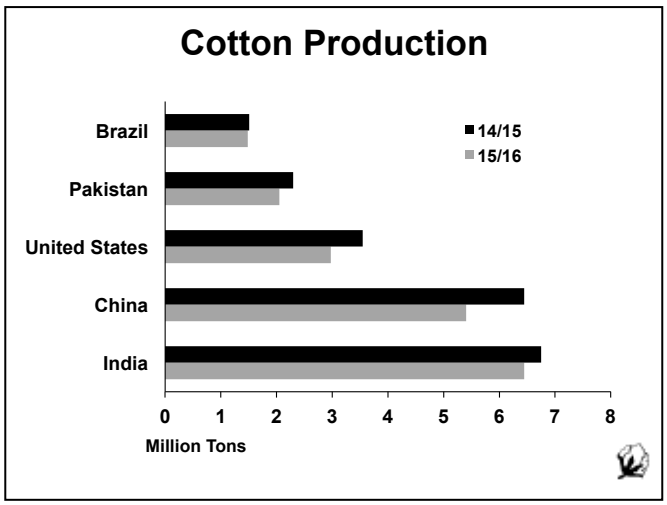
# SUMMARY OF THE OUTLOOK FOR COTTON

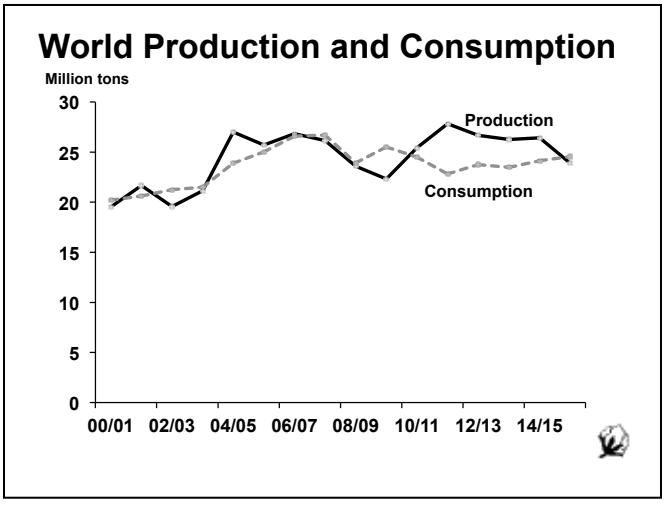
## Cotton Price Gains Attractiveness

High cotton prices last spring encouraged farmers to plant more cotton in many countries, causing the world cotton area to expand by 2% to 33.4 million hectares despite a record level of stocks. World production in 2014/15 is estimated at 26.4 million tons, up 1% from the previous season, while world average yield decreased 2% to 791 kg/ha. In India, area grew 5% to 12.3 million hectares in 2014/15, which is the largest area planted with cotton on record. However, erratic monsoon weather last summer caused India's average yield to fall 5% to 551 kg/ha. As a result, production reached 6.7 million tons, about 20,000 tons fewer than in 2013/14. Harvested area in the United States grew 29% to 3.9 million hectares, and production increased 26% to 3.5 million tons. In contrast, the area in China, Pakistan and Brazil decreased in 2014/15. After reaching 5.5 million hectares in 2011/12, the area under cotton in China has dropped in each of the subsequent seasons, despite high domestic prices, and is estimated at 4.3 million hectares in 2014/15, down 8% from 2013/14. Scarcity of labor, rising production costs, and greater profitability from other crops are among the factors that have discouraged farmers from planting cotton in China. The average yield in China increased 1% to 1,425 kg/ha, and production is estimated at 6.4 million tons. Although planted area in Pakistan increased slightly from 2013/14 to 2.9 million hectares, flooding in the autumn caused a loss of around 86,000 hectares so that harvested area decreased 3% to 2.8 million hectares. However, the average yield is estimated up 14% to 810 kg/ha, and production is likely to reach 2.3 million tons, making Pakistan the world's fourth largest producer. Farmers in Brazil, the largest producer in the Southern Hemisphere and world's fifth largest, were discouraged by the sudden drop in international prices in the months before planting, and area in Brazil fell 13% to 976,000 hectares. However, yield is expected to increase 2% to 1,548 kg/ha, with production estimated down 11% to just over 1.5 million tons.

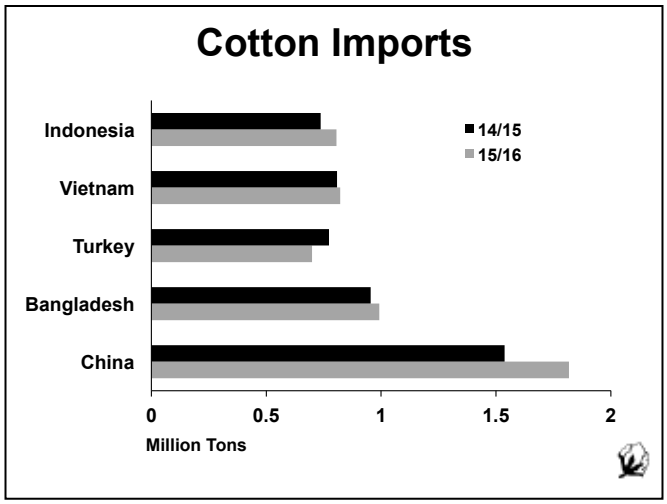
Although the price of cotton is less attractive than its competing crops, such as wheat, maize, soy, rice and sugar, compared with a year ago, its position has improved in the last few months. The record volume of stock has put downward pressure on international cotton prices, which have averaged around 68-70 cents/lb for much of the season. Like cotton, prices of competing crops fell in August and September. However, prices for wheat, maize, and soy recovered in late autumn and winter, while cotton continued to fall, making cotton less attractive. Then, in January and February 2015,

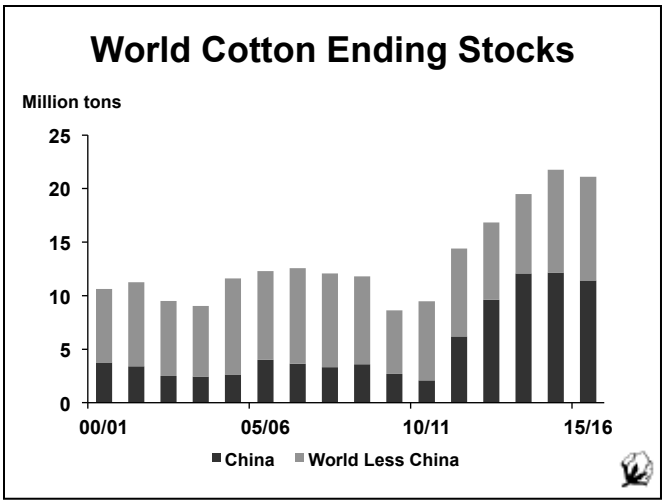



*Cotton (ISSN 0010-9754) is published every two months by the Secretariat of the International Cotton Advisory Committee, 1629 K Street, NW, Suite 702, Washington DC. Editor: Rebecca Pandolph <rebecca@icac.org>. Desktop publishing: Carmen S. León. Subscription rate: $230.00 (hard copy); $190.00 (electronic version). Send address changes to COTTON, 1629 K Street, NW, Suite 702, Washington DC 20006-1636.* 




prices for wheat, maize, and soybean all declined while cotton prices have held steady. The recent gain in the price attractiveness of cotton may result in less area being lost to competing crops. World cotton area is forecast to decrease 7% to 31.3 million hectares in 2015/16, and world production is projected down 9% to 24 million tons.

After falling 1% in 2013/14, world consumption is projected to expand 3% to 24.1 million tons in 2014/15 with growth in Asia dominating. China's consumption is expected to recover 5% to 7.9 million tons after several seasons of decline. India, the world's second largest consumer is projected to increase consumption by 4% to 5.2 million tons while consumption in Pakistan is forecast to grow 2% to 2.3 million tons, making it the third largest consumer in the world. In 2015/16, consumption is expected to grow modestly by 2% to 24.6 million tons.

World imports are forecast down 15% to 7.4 million tons. Imports by the world's largest importer, China, are expected to drop 50% to 1.5 million tons due to the greater availability of domestic cotton in 2014/15 and the restriction on additional import quota in 2015. Strikes in Bangladesh, the second largest importer, have made trade more difficult, and imports are projected to fall 2% to 965,000 tons in 2014/15. Turkey's imports are on track to decrease by 12% to 773,000 tons in 2014/15 due to a larger domestic crop, a 4% drop in domestic consumption, and concerns over the antidumping duty case against the United States, its largest source of imports.

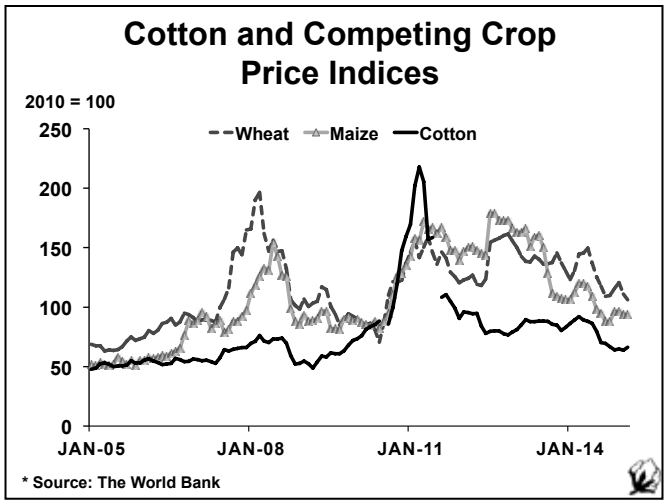
Although consumption is recovering in 2014/15, a production surplus of 2.3 million tons is likely, resulting in another year of rising ending stocks. In 2014/15, world ending cotton stocks are expected to rise by 12% to 21.8 million tons, which represents 90% of world consumption this season. However, in 2015/16, ending stocks may decrease by 3% to 21.2 million tons.

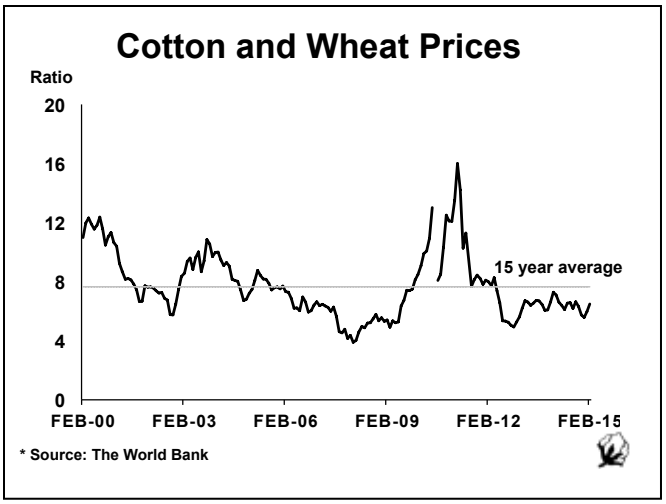
# PRICES OF COTTON AND COMPETING CROPS

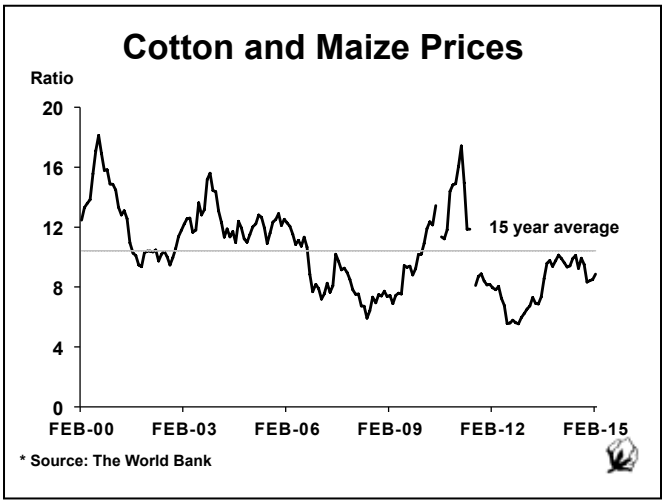
*By Rebecca Pandolph, ICAC*

Many farmers in the Northern Hemisphere, where about 90% of world production occurs, have already made their planting decisions by the end of March. Area devoted to cotton is expected to decrease by 7% to 31.3 million hectares in 2015/16. The decline in the area under cotton is the result of low prices, which are well below the production costs of most producers and have reduced the profit margin on cotton in comparison to competing crops. Maize, wheat, soybeans, rice, sorghum, and sugar are considered the main crops competing for area with cotton, and their prices are measured by commonly accepted indicators published by the World Bank.

The Cotlook A Index is highly correlated with competing crop prices. Macroeconomic shocks, such as the Great Recession in 2008/09, and weather phenomena usually affect the supply-demand balance of different commodities in the same direction, leading to correlations in commodity prices. The World Bank index of agricultural prices climbed from 79 in December 2008(2010=100) to 130 in July 2011. It declined in the following years, reaching 93 in February 2015. International cotton prices rose and fell more markedly than other commodities in the early 2000s, though they followed the same trend as other agricultural crops during the mid-2000s. However, international cotton prices did not rise as quickly as other agricultural crops in mid-2008. In July 2010, international cotton prices began their rapid ascent, reaching a record \$2.30/lb in March 2011 before falling to \$1.14/lb in August 2011, showing greater volatility than other crops. Cotton prices continued to fall until reaching \$0.82/lb in June 2012 and averaged \$0.83/lb for the remaining months of



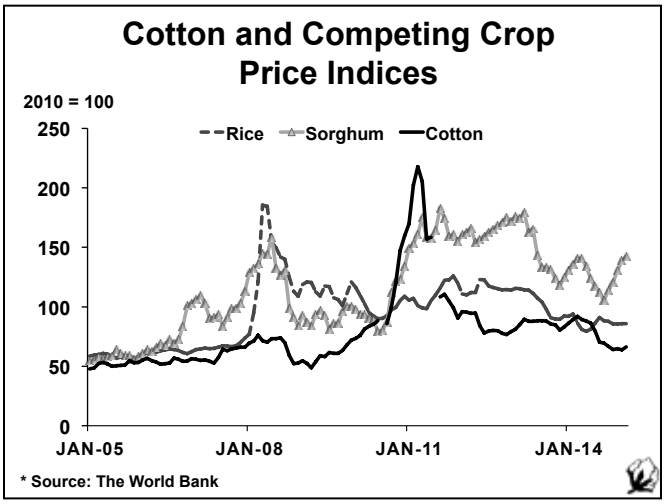



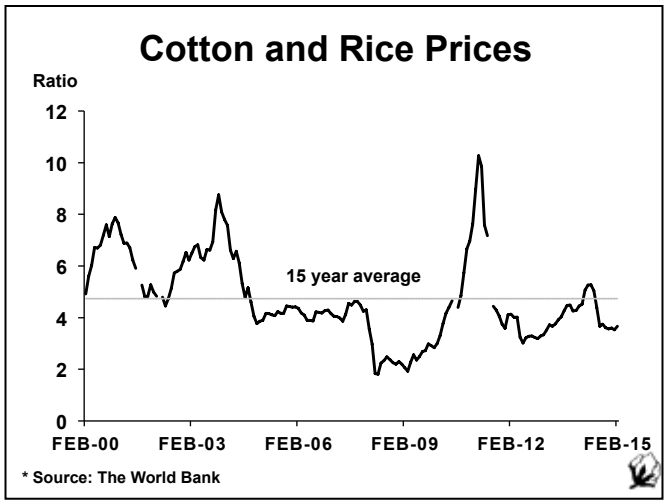

2012. In 2013, they averaged $0.90/lb and climbed to $0.97/lb in March 2014. International cotton prices declined 39% since March 2014 to $0.70/lb in February 2015.

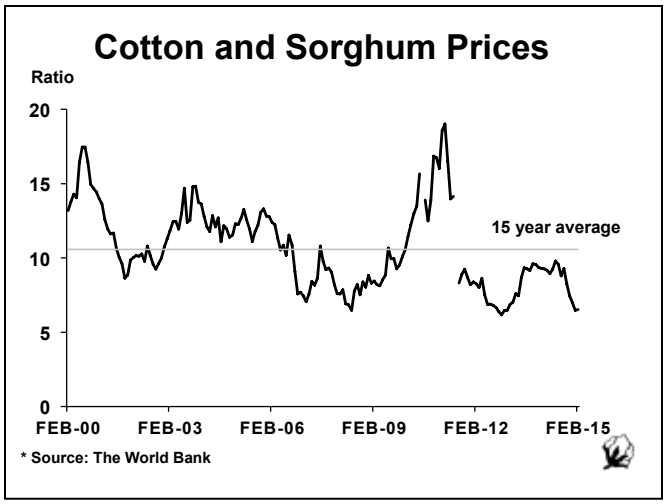
The United States is the largest producer of maize, accounting for 30-35% of world production and U.S. maize prices (no. 2, yellow, f.o.b. US Gulf ports) are commonly used as an indicator of world prices. In the 2000s, maize prices averaged $126.8 per ton. In the last five years, maize prices have climbed to an average of $243.4 per ton, peaking at $333 per ton in July 2012 as severe drought in the United States threatened the maize crop that year. . In 2013, maize prices averaged $259.4 per ton. Maize prices averaged $174.2 per ton in January-February 2015, down 3% from the November-December 2014 average. Maize is one of the main competing crops with cotton in the four largest cotton-producing countries as well as many West African countries and Turkey. The ratio between the Cotlook A Index and maize prices reached a high of 17.4 in March 2011, the second highest level in the last 15 years, before falling to 5.5 in November 2012, the lowest level in 15 years. The ratio averaged 10.4 between February 2000 and February 2015. In January-February 2015, the average ratio was 8.7, making cotton relatively less attractive to plant than during the corresponding period a year earlier when the ratio was 10.

Wheat prices (no. 2, soft red winter, export price delivered at the US Gulf port) averaged $259.7 per ton during in the last ten years. Prices fell by 64% from a peak of $439.7 per ton in March 2008 to $157.1 in March 2010. Prices recovered over the next few months and averaged $314 per ton from 2011 to 2013. In 2014, wheat prices declined to an average of $285 per ton, peaking at $334.7 in May 2014 before falling to $243.7 in September 2014. After recovering in October-December 2014, prices have fallen to an average of $242.9 per ton in the first two months of 2015. The ratio between the Cotlook A Index and wheat prices dropped from a high of 16 in March 2011 to a low of 4.9 in November 2012, the second lowest point since February 2008 when the ratio was 3.9. The ratio averaged 7.7 in the last 15 years. The price ratio of cotton to winter wheat in September-October 2014 averaged 6, down from 6.3 during the corresponding period a year earlier.

Rice prices (5% broken, white rice f.o.b. Bangkok) nearly quadrupled in the 2000s, increasing from $241 per ton in January 2000 to a high of $907 per ton in April 2008. Prices fell in subsequent months and ended at $532 per ton in December



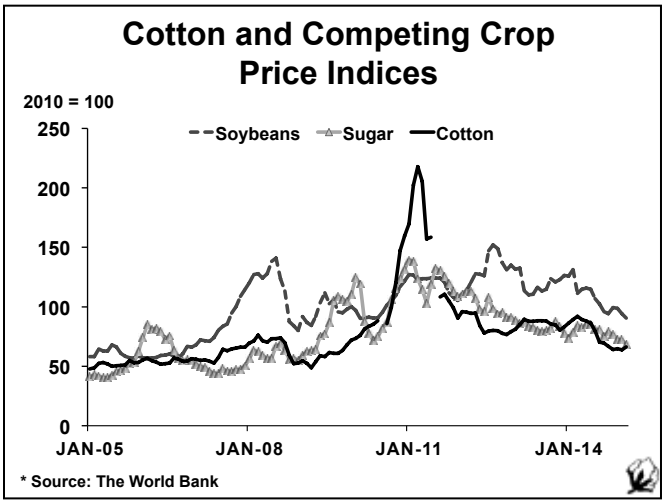


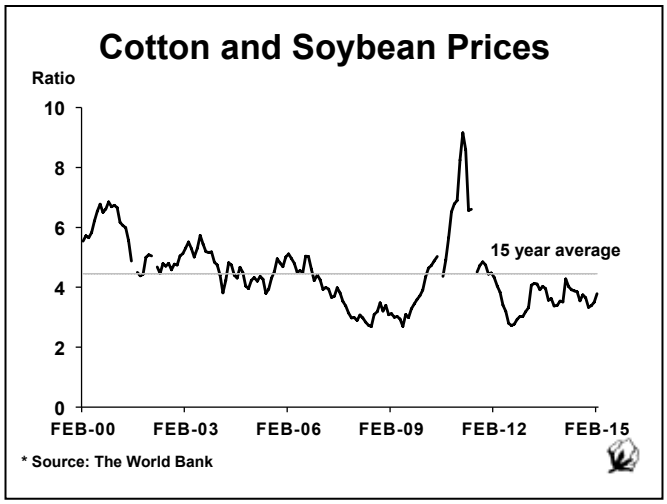



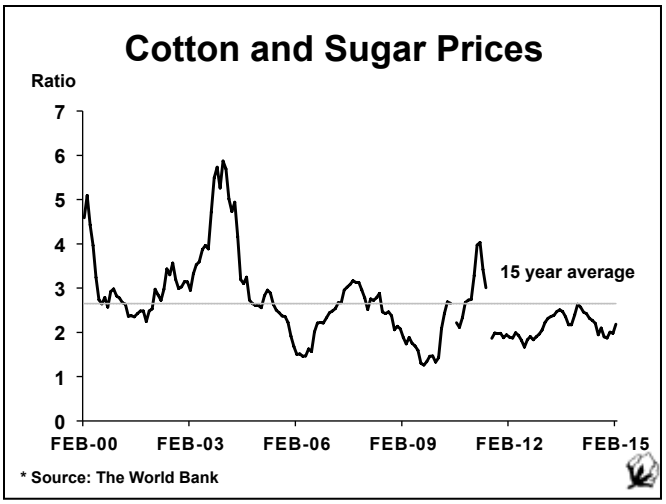

2008. Prices remained elevated in 2009, averaging $555 per ton, before falling to $489 per ton in 2010. Rice prices recovered to an average of $553 per ton in 2011 and 2012, but declined in the last two years. In the first six months of 2014, rice prices averaged $419 per ton before increasing to $445 per ton in August 2014. From September through December 2014, rice prices fell from $432 per ton to $418 per ton. They remained stable in January-February 2015 at $220 per ton. Rice is one of the main crops competing with cotton in China and India. The price ratio of cotton to rice peaked in March 2011 at 10.3 and then fell 71% to 3 in June 2012. The price ratio remained below the 15-year average of 4.7 until March 2014 when it rose to 5.1. By July 2014, the ratio declined to 4.4 and fell to 3.7 in August 2014. Between September and December 2014, the ratio averaged 3.6. In January-February 2015, the ratio remained stable at 3.6, making cotton prices relatively less attractive when compared to January-February 2014 when the ratio averaged 4.5.

Sorghum has grown in popularity in recent years due to growing demand, its drought tolerance, and reduced planting costs, The United States is the largest exporter of sorghum, accounting for nearly 75% of world exports and U.S. sorghum prices (no. 2 milo yellow, f.o.b. Gulf ports.) can be a good indicator of world prices. Since 2005, sorghum prices averaged $190.4 per ton. In October 2010, prices rose to $201 per ton, up 9% from the month before, and remained above $200 per ton until November 2013 when the price declined to $195.2 per ton. In 2014, prices averaged $221.8 per ton in the first six months of 2014 before falling to an average of $184.3 per ton in July-October 2014. Since November 2014, prices have been increasing and averaged $232.8 in the first two months of 2015. Sorghum is one of the competing crops with cotton in Australia, the United States, and several African countries, including Burkina Faso and Mali. The ratio between the Cotlook A Index and sorghum prices reached a high of 19 in March 2011 before falling to 6.2 in November 2012. The ratio averaged 10.6 in the last 15 years, but has remained below this average since August 2011. In January-February 2015, the average ratio was 6.5, making cotton much less attractive to plant than during the corresponding period a year before when the ratio was 9.3.

Soybean prices (US, c.i.f. Rotterdam) steadily climbed from $262 per ton in January 2005 to $634 per ton in July 2008. By the end of 2008, prices had fallen to $360 per ton. Prices climbed to $503 per ton by June 2009 and remained steady over the next three years, averaging $495 per ton. Soybean prices peaked again in August 2012 at $684 per ton before falling to $495 per ton in March 2013. They slowly recovered to $591 per ton by February 2014 before falling to $500 per ton the following month. Soybean prices remained above $500 per ton for the next three months before declining in each of the remaining months of 2014 but November. In January-February 2015, soybean prices averaged $416 per ton, down 7% from the average price in November-December 2014. Soybeans compete with cotton in both India and the United States, the two largest cotton-exporting countries. In the last 15 years, the ratio of the Cotlook A Index to soybean prices averaged 4.5 and reached its highest point in March 2011 at 9.2. Since March 2011, the price ratio fell to a low of






2.7 in August 2012. After increasing to 4.1 in April 2013, the ratio has ranged between 3.3 and 4.3 in 2013 and 2014. As the price ratio averaged 3.4 in January-February 2015, cotton has become much less attractive to plant this spring compared to last spring when the ratio was 3.9 during the same period.

Sugar (International Sugar Agreement daily price, raw, f.o.b. Caribbean ports) averaged 37 U.S. cents/kg since January 2005, and 45 U.S. cents/kg since January 2010. Prices fell 26% from 65 U.S. cents/kg in January 2011 to 48 U.S. cents/kg in May 2011. After recovering to 62 U.S. cents/kg in July 2011, prices have steadily declined, reaching 32 U.S. cents/kg in February 2015. Pakistan is one of the main countries where cotton competes with sugar. In the last 15 years, the ratio of the Cotlook A Index to world sugar prices peaked in January 2004 at 5.9 before falling to 1.5 in May 2006. Another peak occurred in April 2011 when the ratio reached 4 before falling below its 15-year average of 2.7 in the following years. In 2014, the ratio reached a low of 1.9 in November 2014, but has since increased. In January-February 2015, the ratio averaged 2.0, making cotton less attractive to plant compared to the same period last year when the ratio was 2.5.

Like cotton, prices of competing crops fell in August and September. However, prices for wheat, maize, and soy recovered in late autumn and winter, while cotton continued to fall, making cotton less attractive. Then, in January and February 2015, prices for maize, wheat and soybean all declined while cotton prices have held steady. The recent gain in the price attractiveness of cotton may mitigate some of the loss in area to maize, wheat and soybean. However, the prices and low production costs of sorghum make it a much more attractive crop to plant in 2015. In countries like the United States and Australia where it is a possible alternative, farmers may switch to sorghum.

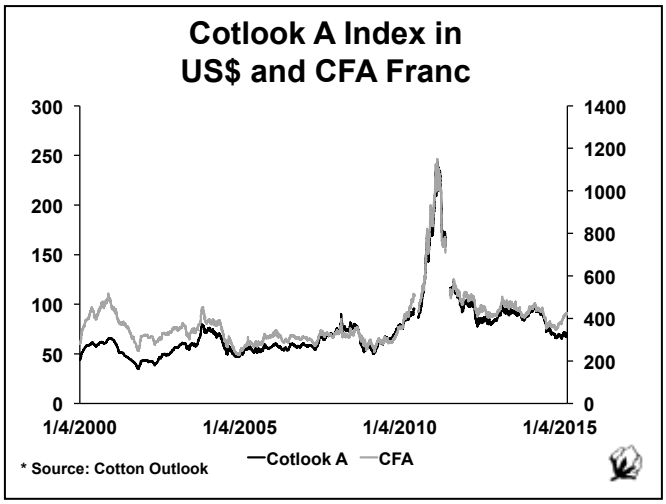
# THE IMPACT OF EXCHANGE RATE MOVEMENTS ON THE COTTON SECTOR IN THE CFA ZONE

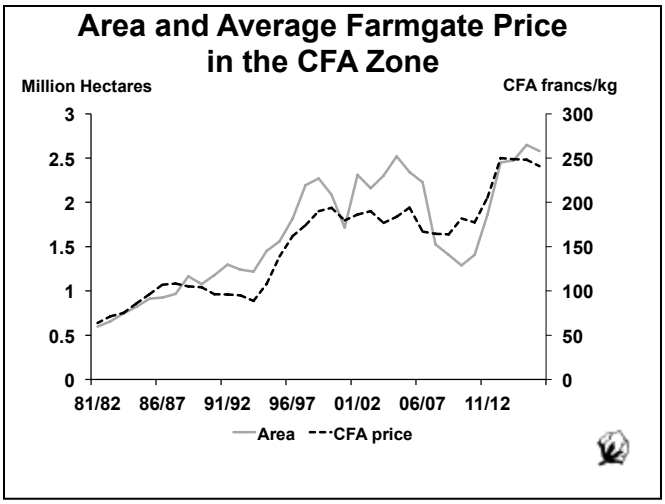
*By Rebecca Pandolph, ICAC*

Exchange rates affect cotton production and trade by determining the relationship between international and domestic prices. Movements in exchange rates directly influence prices of cotton in local currency terms: an appreciating dollar raises the price of cotton in the international market while a depreciating dollar lowers international cotton prices.

In 2014/15, the CFA zone[1] is expected to produce 1.1 million tons of cotton lint and to export 846,000 tons of cotton lint, accounting for 4% of world production and 11% of world exports. All of these countries either belong to the Central African Economic and Monetary Community or the West African Economic and Monetary Union. Both monetary unions possess their own central banks that separately issue CFA francs. However, the two monetary arrangements share similarities that allow them to be considered a single zone.

1) Since the independence of the African countries in the CFA zone, "CFA" has stood for both Communauté financière d'Afrique ("Financial Community of Africa") and Coopération financière en Afrique centrale ("Financial Cooperation in Central Africa"). The cotton-producing countries in the CFA zone consists of the following: Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo.




Both currencies are pegged to the Euro at the same rate and the French Treasury guarantees their convertibility as well as providing an overdraft facility for liquidity needs. Nearly all of the countries in these two monetary unions were formerly governed by France and the origins of the two groups are linked to the colonial period. France established institutions to remit currency for the French colonies in Africa and the CFA franc was established in 1945 to protect the colonies from the devaluation of the French franc. While several countries left the union upon gaining independence, the ones that remained benefitted from lower inflation, macroeconomic stability, and greater policy transparency, particularly in the first few decades after the arrangement was established.[2] However, there are also challenges for the region in having their currency tied to the euro, and this paper will examine the impact that exchange rates can have on the cotton sector in the CFA zone.

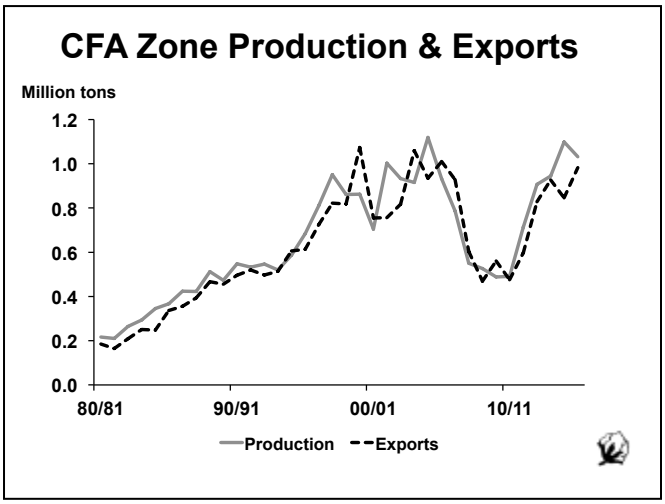
## Production

The CFA zone accounts for around 3% of world production in the last 35 years. Between 1980/81 and 1997/98, production more than tripled from 216,000 tons to 951,000 tons. After the devaluation of the CFA franc in 1994, production grew at an annual average of 16%. It then fell 20% to a 6-year low of 705,000 tons in 2000/01 due to depressed international prices compounded by institutional problems in some countries. Production in the CFA zone peaked at just over 1.1 million tons in 2004/05, when farmers and ginners benefited from both higher international prices and the depreciation of the CFA franc at planting time. In 2006 and 2007, international cotton prices declined while the CFA franc appreciated against the U.S. dollar. Additionally, input costs rose and many countries had recently launched privatization schemes that were not always well-managed. Against this backdrop, cotton area fell 31% in 2007/08 to 1.5 million hectares while production reached a 14-year low of 550,000 tons. After a season of lower international prices exacerbated by the appreciation of the CFA franc, area and production decreased to 1.3 million hectares and 488,000 tons, respectively, in 2009/10, which was the lowest volume of production since the 1980s. In the following five seasons, production increased at an average of 19% a year and is expected to be just below 1.1 million tons in 2014/15.

In many countries in the region, producer prices are set by seedcotton companies before planting. The announced prices are influenced by international prices, but also by the policies in place for the cotton sector during the year. In most of these countries, there is little to no domestic market for cotton lint and thus, almost all the crop is sold on the international market. In these cases, ginners take on a greater share of the risk than cotton producers that the world price will change by the time the crop is marketed. Cotton companies that are subject to changes in both international cotton prices and the exchange rate may pass on adverse prices and exchange rates by lowering seedcotton prices when their financial solvency is at risk. On the other hand, when international cotton prices are high or when the exchange rate is more favorable, several countries have mechanisms that allow part of the gain in profitability to be passed on to farmers as a bonus at the end of the season.

Although low international prices or an unfavorable exchange rate may adversely impact the prices paid to producers, other factors can reduce farmers' earnings. One of the main issues is low yields, which can greatly reduce profitability, particularly when production costs are increasing. The average yield in the CFA zone is 405 kg/ha, which has not changed significantly over the last 35 years. One reason is that fertilizer tends to be much more expensive in sub-Saharan Africa than other markets due to smaller, fragmented markets and high transportation costs. Another reason is that little to no irrigation is used, which means that the annual crop is highly

2) Gulde, A.M. (2008). Overview in *The CFA Franc Zone Common Currency*, Uncommon Challenges. Washington, DC: International Monetary Fund <http://www.imf.org/external/pubs/nft/books/2008/cfazone/chap1.pdf>.




dependent on weather conditions. Inadequate infrastructure to deliver inputs to farmers in a timely fashion and insufficient extension services also impact yields.

## Exports

Nearly all of the cotton produced in the CFA zone has been destined for export to the international market for the last 35 years. The competiveness of these exports in the international market has been affected by the CFA franc's ties to the French franc initially and to the euro since 1999. Since its creation, the fixed rate between the CFA franc and the French franc was adjusted once in 1948 and once in 1994. The CFA franc was devalued in January 1994 to help promote exports of products from the region. In 1992/93 just before the devaluation, the CFA zone exported 497,000 tons of cotton lint, down 4% from 1991/92 and accounting for 91% of its crop. In the following year, exports grew 3% to 513,000 tons although production was down 5%. In 1994/95, the first season in which the new valuation of the CFA franc was in full effect, production increased 13% to 586,000 tons. However, exports jumped 18% to 606,000 tons, which included carryover stock from previous seasons, and the CFA zone accounted for 10% of world exports. The CFA zone's exports increased in each following five years, except 1998/99 when they remained stable, and peaked at 1.1 million tons in 1999/00. At the same time, the CFA zone's share of world exports increased from 10% in 1995/96 to 18% in 1999/2000. In 2000/01, the year after the euro went into effect, exports fell 30% to 755,000 tons due to the significant decrease in production that year and the region's share of world exports fell 5 percentage points to 13%. From 2000/01 to 2006/07, the CFA zone's exports averaged 894,000 tons tons and its share of world exports ranged between 10% and 15%.

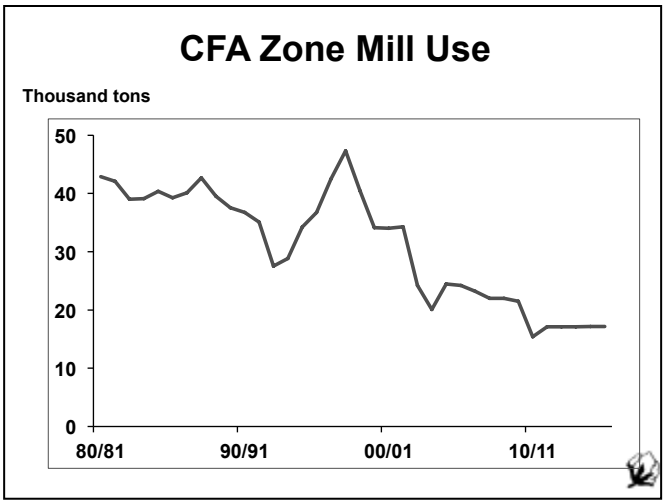
In 2007/08 and 2008/09, exports dropped 35% to 603,000 tons and 22% to 469,000 tons, respectively. In 2007/08, much of this decrease was attributable to a 30% decrease in production caused by lower prices, rising cost and delayed arrival of inputs, and the late arrival and low intensity of the summer monsoon. At the same time, world cotton exports increased 4% to 8.5 million tons, and as a result, the CFA zone's share decreased to 7%. In 2008/09, world exports fell 22% due to lower production and a 10% reduction in demand in the wake of the Great Recession. The CFA zone's reduction in exports was in line with that of the world, so its share remained constant at 7%. In 2007, the CFA franc also appreciated against the U.S. dollar, making exports less competitive and reducing earnings. The unfavorable exchange rate with the U.S. dollar was maintained over the next several years and the CFA zone's share of world exports remained around 6.5% until 2012/13.

In 2011, China introduced its reserve policy and world exports grew by 27% in 2011/12 and 3% in 2012/13. Exports from the CFA zone increased by 25% in 2011/12 to 597,000 tons and by 39% in 2012/13 to 828,000 tons. The exchange rate between the CFA franc and the U.S. dollar became more favorable between spring 2012 and fall 2013. In 2013/14, world exports fell 12% to 8.9 million tons due in part to a smaller crop from the United States, the world's largest cotton exporter, leaving it with a smaller exportable surplus. During the same period, however, the CFA zone's exports rose 12% to 927,000 tons despite a less favorable exchange rate than in the previous two seasons. In 2014/15, CFA zone exports are forecast down 9% to 846,000 tons despite production estimated at 1.1 million tons, the largest volume since 2004/05. However, world exports are expected to decrease at a greater rate, falling 17% to 7.4 million tons given the decreased demand from China, which had been importing much of the world production surplus in the past three seasons. The CFA zone's share of world exports is projected to be 11%, an increase of one percentage point from 2013/14. The depreciation of the CFA franc since the start of 2014/15 accelerated in the first few months of 2015, approaching the levels seen in the early 2000s. If this trend continues, then companies that market cotton lint will have the potential for much higher earnings than in the last few season, lessening the impact of the significant decline in international cotton prices in 2014/15.

Although the exchange rate has a significant effect on exports from the CFA region, other factors must be taken into consideration. As discussed above, the size of the crop produced determines how much is available for export in any given year. Further, access to ports, particularly for landlocked countries, is another issue in Africa, which can be aggravated by conflicts, such as in the Cote d'Ivoire in 2002. Additionally, overall demand is another consideration, because weak demand, such as in this season, makes it harder to find buyers for cotton.

## Consumption

Mill use consumption in the CFA zone has not occurred on a large scale, averaging 40,000 tons per year during the 1980s. In the following decades the trend has been one of mostly steady decline reaching an average of 17,000 tons in the last five seasons. One notable exception was the mid to late 1990s. Although average use was at its highest level in the 1980s,




it shrank at an average of 2% a year. In 1992/93 just before the devaluation of the CFA franc, consumption declined by 22% to 28,000 tons. Mill use then expanded by 5% to 29,000 tons in 1993/94 and by 19% to 34,000 tons in the following season. Consumption increased in the next three seasons, reaching 47,000 tons in 1997/98, which is the highest annual volume in the last 35 years. However, in the following two seasons leading up to the conversion to the euro, mill use declined by 14% to 40,000 tons and 16% to 34,000 tons in 1999/00. Mill use remained stable at 34,000 tons until 2002/03 when it declined 29% to 24,000 tons. In 2005, the CFA franc weakened slightly and the multi-fiber arrangement (MFA) ended, which lifted the quotas imposed on developing countries that had limited the quantity of textiles and garments that could be exported to developed countries. When the MFA was in effect, many Asian textile companies had invested in Africa to take advantage of duty-free access to the United States under its African Growth and Opportunity Act. In 2004/05, consumption increased to 24,000 tons. However, the strengthening of the CFA franc and the shift in investors from Africa to Asia put downward pressure on the textile industry in the CFA zone and caused consumption to decline by an average of 4% a year.

While appreciation of the CFA franc can make yarn and other downstream cotton productions less competitive in international markets, several other issues greatly limit consumption in the CFA zone. Compared with small-scale farming that dominates the region, spinning and other downstream processes are more capital intensive and require large expenses that must be paid up front, creating barriers to entry into the industry. Furthermore, an adverse exchange rate can make spindles and other imported equipment more expensive to purchase. Another known issue is access to electricity and its cost, which weigh heavily on the spinning industry. In 2012, 60% of the urban population in sub-Saharan Africa had access to electricity.[3] The average cost to consumers in sub-Saharan Africa was around $130-$140 per megawatt/hour in 2012 while costs in Latin America, Eastern Europe and East Asia were around $80 per megawatt/hour.[4]

## Conclusion

In the first three months of 2015, the CFA franc has significantly depreciated against the U.S. dollar, approaching a level last seen in the early 2000s. If the current exchange rate is maintained in the short term, exporters in the CFA zone may be more competitive in the international market than previous seasons and may increase their earnings. While farmers are not as likely to benefit directly, some of the additional earnings are likely to be passed onto the farmers whether from higher seedcotton prices or bonuses paid at the end of the season. While a favorable exchange rate can help boost domestic consumption, other factors discussed above have a bigger influence.

# UPDATE ON COTTON PRICE VOLATILITY

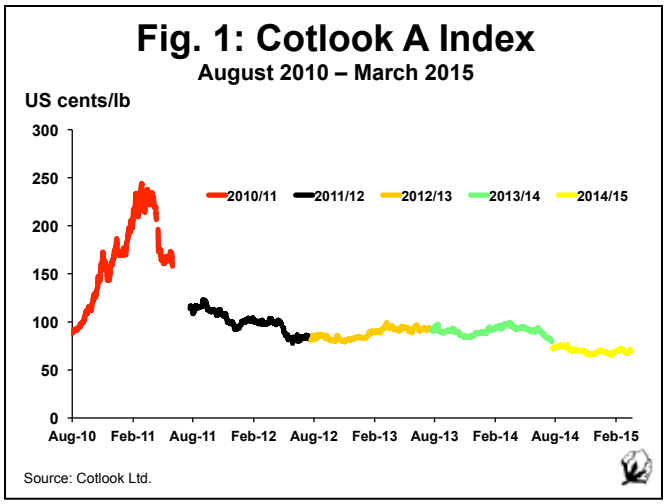
*By Lorena Ruíz, ICAC*

The ICAC secretariat has prepared several reports on the evolution of volatility in cotton prices, its causes, and consequences. Since 2010/11, when cotton prices reached not only record levels but also showed record variability, the volatility of cotton prices has declined to historic levels. The goal of this article is to present an update of the analysis of cotton price volatility using three methodologies, all of which implicitly assume that volatility and dispersion of prices are synonyms. The alternative methodologies used by the Secretariat include relative spread, coefficient of variation, and mean absolute percentage forecast error.

## Developments in Cotton Price Volatility

In 2013/14 cotton prices averaged 90 cents per pound, 3% higher than in 2012/13 (Figure 1). Trends in international

3) Electricity database. In *Africa Energy Outlook 2014*. Paris, France: International Energy Agency. < http://www.worldenergyoutlook.org/africa/>
4) Energy in Africa today: Energy affordability. In *Africa Energy Outlook* (p 66). Paris, France: International Energy Agency <http://www.iea.org/publications/freepublications/publication/WEO2014_AfricaEnergyOutlook.pdf>




cotton prices have been driven by global cotton stocks and changes in China's cotton policy. In the first eight months of 2014/15 cotton prices have averaged 70 cents per pound, 23% lower during the same period in 2013/14. The substantial fall in cotton prices is due to a fifth straight season of surplus in cotton production and the end of the direct government market intervention by China, implemented during the last three seasons.

The ICAC Secretariat has been reporting volatility measures in terms of the relative spread, the coefficient of variation, and the mean absolute percentage forecast error. The first two volatility measures indicate the dispersion of prices relative to the average price over a certain period of time, while the last one indicates the dispersion of prices relative to a short-term trend.

The relative spread is the ratio of the difference between the maximum price and the minimum price to the average price observed during a given period of time, usually a crop year. In the 2013/14 season (August 1, 2013 to July 31, 2014), the A Index fluctuated between 79.60 and 98.90 cts/lb, while averaging 90.53 cents/lb. The relative spread of the A Index amounted to 21.3%, the lowest level recorded since 2005/06 (Figure 2).

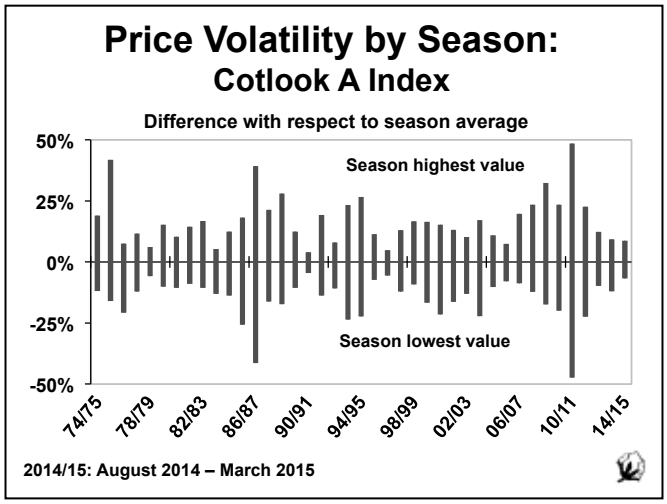
During the first eight months of 2014/15 the relative spread of the A Index amounted to 15.5%, slightly lower than the value registered during the same period in 2013/14, and the third lowest level observed in the last decade (Figure 3). The A Index fluctuated between 76.15 and 65.30 cents/lb, and averaged 70.00 cts/lb.

The coefficient of variation is calculated as the ratio of the standard deviation of daily prices to the average price during a period of time, usually a crop year. In 2013/14, the coefficient of variation of the A Index was below the long-term average, and amounted to 4.54% (Figure 2).

The coefficient of variation of the A Index during the first eight months of 2014/15 was 3.81%, lower than the value observed during the same period in 2012/13 (5.24%) and 2013/14 (4.35%), and the lowest level observed since 2006/07. (Figure 3).

The mean absolute percentage forecast error (MAPFE) gauges the deviation of cotton prices with respect to short-term trends in cotton prices. The MAPFE is calculated as the average daily absolute difference between observed and projected values of the A Index divided by the observed value. The projected value is the forecast of the A Index obtained using a simple regression model, in which a constant and the linear trend over the previous twenty working days are the only terms. The MAPFE of the A Index during the first eight months of 2014/15 was 1.77%, higher than in the previous two seasons but lower than the 3.41% MAPFE during the first eight months of 2010/11 (Figure 4). According to this measure of volatility, 2010/11 tops the list of most volatile seasons at 3.57%, followed by 2007/08 at 2.15%, and 2008/09 at 2.07% (Figure 4).

**Figure 2. Volatility of the A Index by season**



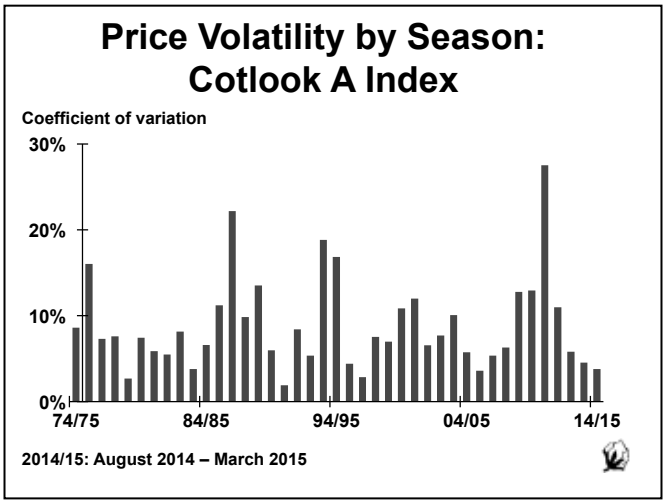
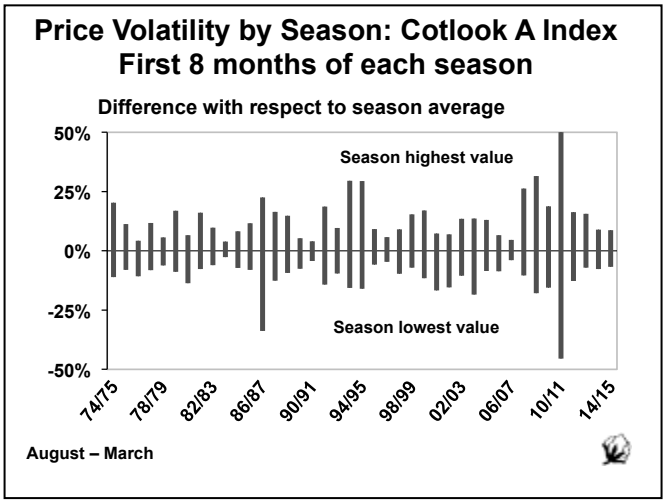
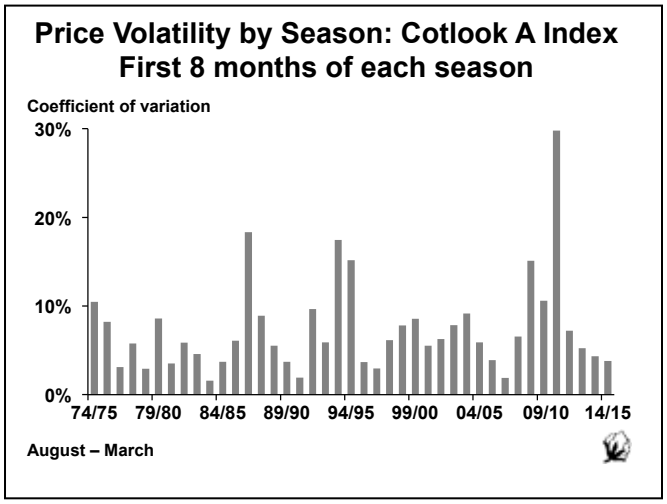



**Figure 3. Volatility of the Cotlook A Index during the first eight months of each season**



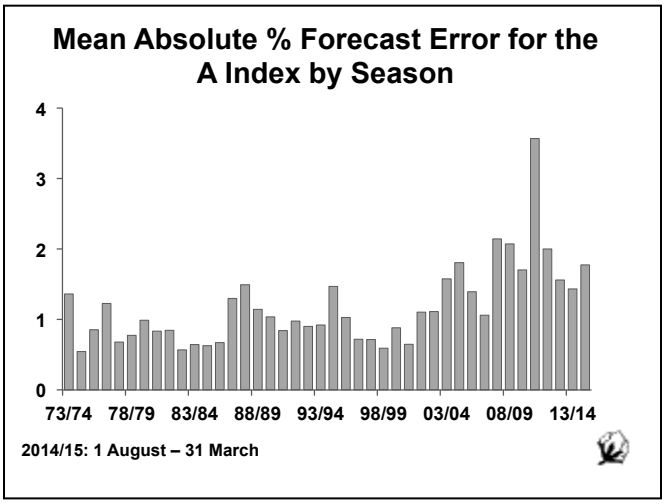

In an attempt to anticipate the volatility levels of the A Index over the entire 2014/15 season, an analysis is made of the correlation between the observed volatility levels over the first eight of the season and the volatility levels over the entire season. So, the coefficient of variation and the relative spread during the first eight months of the season are reasonable predictors of the corresponding measures of volatility of the A Index over the entire season (Figure 5). Based on a simple extrapolation, the relative spread for 2014/15 could reach 26.04%, higher than in the previous two seasons, but much lower than the volatility levels observed between 2008/09-2011/12. A similar conclusion is reached by extrapolating the volatility level for 2014/15 with the correlation coefficient (6.71%), whose correlation between the first eight months of the season and the entire season is 0.88.

The correlation coefficient between the MAPFE during the first eight months of the season and the MAPFE for the entire season amounts to 0.98 (Figure 6). By extrapolation, the volatility of the A Index can be expected to reach 1.82% for the entire season, lower than the average MAPFE observed in the last decade (1.87%), but higher than the MAPFE observed in 2012/13 and 2013/14 (1.56 and 1.43, respectively).

In conclusion, all volatility measures suggest that cotton price volatility has increased slightly from the levels observed in the last two seasons but remains lower than the record level observed in 2010/11.

A number of factors would promote a scenario of increased volatility for cotton prices in 2014/15. First, the International Monetary Fund has made a downward revision in its world GDP growth forecasts, from 3.4% in 2014 and 4% in 2015 as of July 2014, to 3.3% and 3.5% respectively as of January 2015. Second, lower international cotton prices compared to production costs have triggered various kinds of government intervention mechanisms, which could increase volatility

**Figure 4. Volatility of the A Index with respect to short-term price trends**



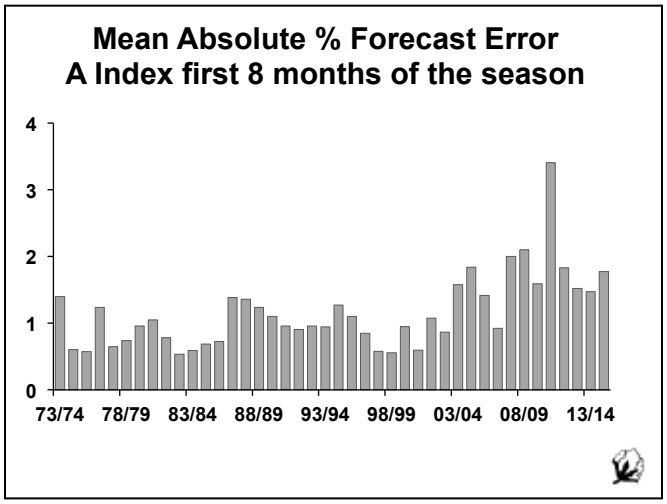
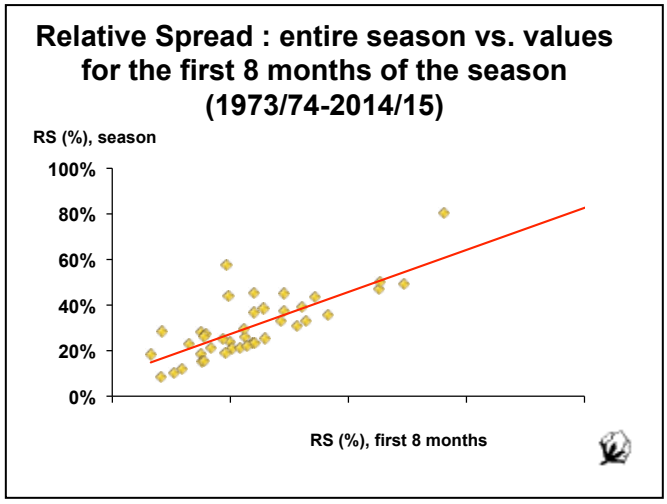
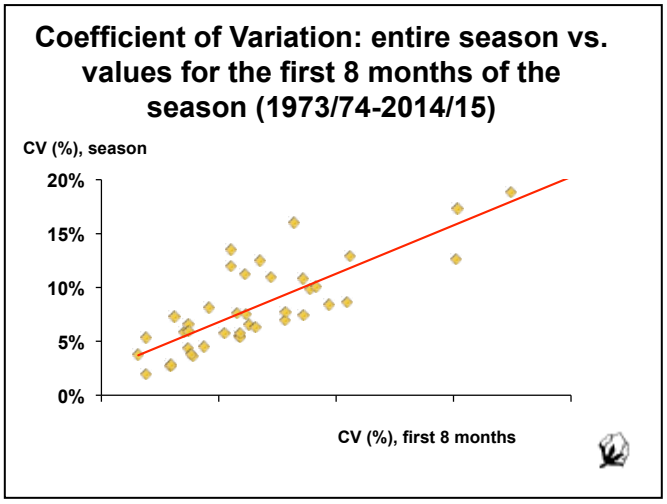
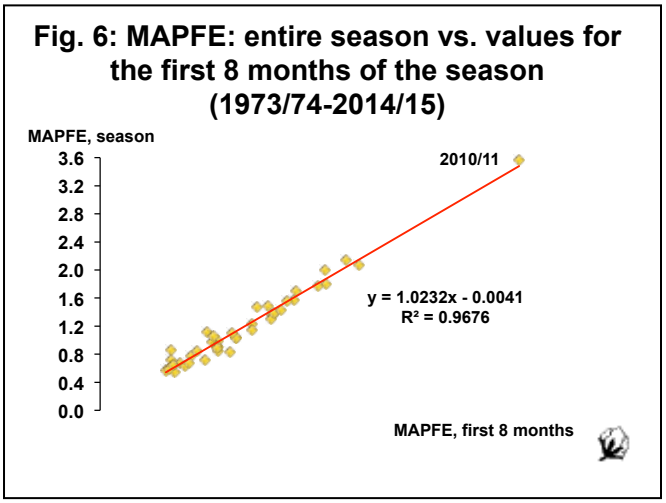



**Figure 5. Relative Spread and Coefficient of Variation: Values for the entire season vs. values for the first eight months of the season (1973/74-2014/15)**




in the cotton market. Third, forecasts of growth in cotton demand have been reduced. The ICAC Secretariat adjusted cotton consumption forecasts for 2014/15 from 24.5 million tons as of August 2014 to 24.22 million tons as of March 2015. Simultaneously, global cotton production for the same period has been revised upwards, from 25.53 million tons to 26.36 million tons, as a result cotton production will be 0.3% higher than in the previous season. As we have seen, both demand and supply factors put downward pressure on cotton prices and are likely to increase the range of movement of cotton prices. However, according to preliminary results for the first eight months of the 2014/15 season, volatility could be expected to remain low.



## 2013/14 SUPPLY AND USE OF COTTON BY COUNTRY April 1, 2015

| | AREA | YIELD | PROD | BEG STKS | IMPORTS | CONS | EXPORTS | END STKS | S/U * | S/MU ** |
|---|---|---|---|---|---|---|---|---|---|---|
| | 000 Ha | Kgs/Ha | 000 Metric Tons | | | | | | Ratio | Ratio |
| CANADA | | | | 0 | 1 | 1 | | 0 | 0.10 | 0.10 |
| CUBA | 4 | 272 | 1 | 1 | 2 | 3 | | 1 | 0.19 | 0.19 |
| DOM. REP. | | | | | 1 | 1 | | 0 | 0.47 | 0.47 |
| MEXICO | 119 | 1,625 | 193 | 161 | 233 | 412 | 29 | 146 | 0.33 | 0.36 |
| USA | 3,053 | 921 | 2,811 | 903 | 3 | 773 | 2,293 | 651 | 0.21 | 0.84 |
| **N. America** | **3,181** | **945** | **3,006** | **1,066** | **240** | **1,191** | **2,322** | **799** | **0.23** | **0.67** |
| EL SALVADOR | | | | 7 | 29 | 27 | | 8 | 0.31 | 0.31 |
| GUATEMALA | | | | 7 | 23 | 21 | | 9 | 0.45 | 0.45 |
| HONDURAS | 0 | 319 | 0 | 0 | | | | 0 | | |
| **C. America** | **2** | **515** | **1** | **14** | **52** | **49** | **0** | **18** | **0.37** | **0.37** |
| ARGENTINA | 506 | 597 | 302 | 158 | 3 | 135 | 60 | 268 | 1.37 | 1.98 |
| BOLIVIA | 5 | 532 | 3 | 1 | 2 | 3 | 1 | 1 | 0.16 | 0.20 |
| BRAZIL | 1,122 | 1,520 | 1,705 | 809 | 32 | 871 | 485 | 1,189 | 0.88 | 1.36 |
| CHILE | | | | 0 | | 0 | | 0 | 0.11 | 0.11 |
| COLOMBIA | 32 | 871 | 28 | 42 | 34 | 83 | 1 | 20 | 0.24 | 0.24 |
| ECUADOR | 1 | 436 | 1 | 1 | 14 | 14 | | 2 | 0.12 | 0.12 |
| PARAGUAY | 25 | 432 | 11 | 10 | 0 | 8 | 5 | 9 | 0.68 | 1.06 |
| PERU | 39 | 835 | 32 | 20 | 58 | 92 | 1 | 17 | 0.18 | 0.19 |
| URUGUAY | | | | 0 | 0 | 0 | | 0 | 0.59 | 0.59 |
| VENEZUELA | 15 | 365 | 6 | 1 | 2 | 8 | | 1 | 0.17 | 0.17 |
| **S. America** | **1,745** | **1,196** | **2,086** | **1,042** | **145** | **1,214** | **552** | **1,506** | **0.85** | **1.24** |
| ALGERIA | | | | 1 | 3 | 3 | | 1 | 0.19 | 0.19 |
| EGYPT | 122 | 821 | 100 | 51 | 15 | 72 | 47 | 47 | 0.40 | 0.65 |
| MOROCCO | | | | 4 | 34 | 34 | | 4 | 0.13 | 0.13 |
| SUDAN | 62 | 411 | 25 | 17 | | 18 | 15 | 9 | 0.27 | 0.49 |
| TUNISIA | | | | 3 | 13 | 13 | | 3 | 0.21 | 0.21 |
| **N. Africa** | **184** | **683** | **126** | **75** | **65** | **140** | **62** | **64** | **0.32** | **0.46** |
| BENIN | 380 | 326 | 124 | 35 | | 4 | 140 | 15 | 0.10 | 3.68 |
| BURKINA FASO | 644 | 426 | 274 | 64 | | 4 | 274 | 60 | 0.21 | 14.95 |
| CAMEROON | 214 | 467 | 100 | 51 | | 2 | 101 | 48 | 0.46 | 25.10 |
| CENT. AFR. REP. | 36 | 228 | 8 | 4 | | | 8 | 3 | 0.38 | |
| CHAD | 205 | 156 | 32 | 13 | | 1 | 33 | 12 | 0.37 | 24.60 |
| COTE D'IVOIRE | 361 | 480 | 173 | 44 | | 2 | 130 | 86 | 0.65 | 42.94 |
| GUINEA | 13 | 270 | 4 | 2 | | | 4 | 1 | 0.38 | |
| MADAGASCAR | | | | 3 | | | | 3 | | |
| MALI | 481 | 383 | 184 | 85 | | 3 | 199 | 68 | 0.34 | 22.57 |
| NIGER | 5 | 444 | 2 | 0 | | 1 | 1 | 0 | 0.12 | 0.25 |
| SENEGAL | 32 | 372 | 12 | 2 | | 1 | 9 | 4 | 0.44 | 5.38 |
| TOGO | 116 | 292 | 34 | 5 | | | 32 | 7 | 0.22 | |
| **F. Africa** | **2,486** | **381** | **947** | **307** | | **17** | **930** | **307** | **0.32** | **17.94** |
| ANGOLA | 3 | 299 | 1 | 0 | | 1 | 0 | 0 | 0.24 | 0.34 |
| ETHIOPIA | 123 | 311 | 38 | 3 | 6 | 44 | 1 | 3 | 0.06 | 0.07 |
| GHANA | 16 | 363 | 6 | 2 | 1 | 1 | 6 | 2 | 0.25 | 1.31 |
| KENYA | 35 | 185 | 6 | 1 | 0 | 7 | | 1 | 0.17 | 0.17 |
| MALAWI | 162 | 268 | 43 | 22 | | 3 | 36 | 26 | 0.68 | 8.75 |
| MOZAMBIQUE | 157 | 280 | 44 | 27 | | | 42 | 29 | 0.68 | |
| NIGERIA | 284 | 203 | 57 | 33 | 1 | 19 | 47 | 26 | 0.40 | 1.40 |
| SOUTH AFRICA | 7 | 1,172 | 9 | 3 | 19 | 22 | 5 | 3 | 0.12 | 0.15 |
| TANZANIA | 400 | 195 | 78 | 120 | | 32 | 52 | 114 | 1.36 | 3.56 |
| UGANDA | 53 | 277 | 15 | 21 | | 1 | 14 | 20 | 1.36 | 22.30 |
| CONGO, DR | | | | 2 | 8 | 8 | | 2 | 0.27 | 0.27 |
| ZAMBIA | 290 | 138 | 40 | 60 | | | 38 | 62 | 1.60 | |
| ZIMBABWE | 250 | 223 | 56 | 41 | | 4 | 59 | 34 | 0.54 | 9.02 |
| **S. Africa** | **1,803** | **221** | **398** | **339** | **57** | **164** | **302** | **328** | **0.70** | **1.99** |
| KAZAKHSTAN | 140 | 530 | 74 | 43 | 0 | 11 | 61 | 45 | 0.63 | 4.08 |
| KYRGYZSTAN | 27 | 831 | 23 | 3 | 3 | 1 | 24 | 4 | 0.16 | 4.01 |
| TAJIKISTAN | 189 | 556 | 105 | 21 | | 11 | 83 | 33 | 0.35 | 3.12 |
| TURKMENISTAN | 550 | 485 | 329 | 108 | | 144 | 175 | 118 | 0.37 | 0.81 |
| UZBEKISTAN | 1,275 | 737 | 940 | 358 | 1 | 345 | 650 | 305 | 0.31 | 0.88 |
| **C. Asia** | **2,181** | **674** | **1,471** | **534** | **4** | **511** | **992** | **504** | **0.34** | **0.99** |

## 2013/14 SUPPLY & USE OF COTTON BY COUNTRY (cont'd) April 1, 2015

| | AREA | YIELD | PROD | BEG STKS | IMPORTS | CONS | EXPORTS | END STKS | S/U * | S/MU ** |
|---|---|---|---|---|---|---|---|---|---|---|
| | 000 Ha | Kgs/Ha | 000 Metric Tons | | | | | | Ratio | Ratio |
| AUSTRIA | | | | 2 | 5 | 4 | 1 | 3 | 0.64 | 0.75 |
| AZERBAIJAN | 28 | 536 | 15 | 15 | | 15 | 0 | 14 | 0.93 | 0.95 |
| BELARUS | | | | 4 | 11 | 11 | | 4 | 0.34 | 0.34 |
| BELGIUM | | | | 5 | 10 | 4 | 6 | 5 | 0.51 | 1.29 |
| BULGARIA | 0 | 324 | 0 | 1 | 5 | 4 | 1 | 2 | 0.32 | 0.39 |
| CZECH REP. | | | | 0 | 3 | 3 | 0 | 0 | 0.12 | 0.12 |
| DENMARK | | | | | 0 | 0 | | | | |
| ESTONIA | | | | | | | | | | |
| FINLAND | | | | | | | | | | |
| FRANCE | | | | 3 | 16 | 13 | 3 | 3 | 0.16 | 0.20 |
| GERMANY | | | | 25 | 52 | 52 | 8 | 16 | 0.27 | 0.32 |
| GREECE | 249 | 1,190 | 296 | 50 | 1 | 20 | 280 | 47 | 0.16 | 2.36 |
| HUNGARY | | | | 0 | 1 | 1 | 1 | 0 | 0.26 | 0.60 |
| IRELAND | | | | 0 | 0 | 0 | | 0 | 0.05 | 0.05 |
| ITALY | | | | 16 | 50 | 41 | 4 | 21 | 0.46 | 0.51 |
| LATVIA | | | | 0 | 0 | 0 | 0 | 0 | 0.52 | 1.00 |
| LITHUANIA | | | | 0 | | | | 0 | | |
| MOLDOVA | | | | 1 | 2 | 2 | | 1 | 0.34 | 0.34 |
| NETHERLANDS | | | | 0 | 5 | 5 | | 0 | 0.10 | |
| NORWAY | | | | | | | | | | |
| POLAND | | | | 0 | 7 | 7 | | 0 | 0.05 | 0.05 |
| PORTUGAL | | | | 8 | 34 | 33 | 0 | 8 | 0.25 | 0.25 |
| ROMANIA | | | | 0 | 1 | 1 | | 0 | 0.05 | 0.05 |
| RUSSIA | 1 | 519 | 1 | 11 | 48 | 48 | | 12 | 0.26 | 0.26 |
| SLOVAK REP. | | | | | | | | | | |
| SPAIN | 64 | 775 | 50 | 17 | 3 | 6 | 44 | 20 | 0.41 | 3.61 |
| SWEDEN | | | | 0 | 0 | | 0 | 0 | 0.02 | |
| SWITZERLAND | | | | 0 | 3 | 3 | 0 | 0 | 0.11 | 0.11 |
| UKRAINE | | | | 0 | 3 | 2 | | 0 | 0.19 | 0.19 |
| UNITED KINGDOM | | | | 0 | 0 | 0 | | 0 | 0.48 | 0.48 |
| FORMER YUGOSLAVIA | | | | 1 | 6 | 6 | | 1 | 0.23 | 0.23 |
| **Europe** | **343** | **1,052** | **361** | **162** | **269** | **283** | **349** | **161** | **0.12** | **0.57** |
| **Including EU-28** | **313** | **1,104** | **346** | **129** | **195** | **194** | **348** | **127** | **0.23** | **0.66** |
| CHINA | 4,700 | 1,474 | 6,929 | 9,607 | 3,075 | 7,531 | 6 | 12,074 | 1.60 | 1.60 |
| TAIWAN | | | | 48 | 186 | 193 | | 41 | 0.22 | 0.22 |
| HONG KONG | | | | 32 | 39 | 10 | 28 | 33 | 0.88 | 3.34 |
| **Sub total** | **4,700** | **1,474** | **6,929** | **9,687** | **3,300** | **7,734** | **34** | **12,148** | **1.56** | **1.57** |
| AUSTRALIA | 392 | 2,270 | 890 | 344 | 0 | 8 | 1,037 | 189 | 0.18 | 25.05 |
| INDONESIA | 9 | 600 | 5 | 114 | 651 | 683 | 1 | 86 | 0.13 | 0.13 |
| JAPAN | | | | 27 | 68 | 71 | | 24 | 0.33 | 0.33 |
| KOREA, D.R. | | | | 1 | 5 | 5 | | 1 | 0.24 | 0.24 |
| KOREA, REP. | | | | 64 | 280 | 272 | 1 | 72 | 0.26 | 0.26 |
| MALAYSIA | | | | 17 | 77 | 15 | 46 | 33 | 0.54 | 2.21 |
| PHILIPPINES | 0 | 566 | 0 | 2 | 7 | 7 | | 2 | 0.29 | 0.29 |
| SINGAPORE | | | | 0 | 0 | | 0 | 0 | 9.83 | |
| THAILAND | 2 | 516 | 1 | 52 | 337 | 337 | | 53 | 0.16 | 0.16 |
| VIETNAM | 12 | 465 | 6 | 81 | 691 | 694 | | 83 | 0.12 | 0.12 |
| **E. Asia** | **435** | **2,092** | **910** | **704** | **2,116** | **2,100** | **1,085** | **546** | **0.17** | **0.26** |
| AFGHANISTAN | 45 | 414 | 19 | 18 | | 4 | 17 | 16 | 0.76 | 3.80 |
| BANGLADESH | 25 | 998 | 25 | 82 | 987 | 900 | | 194 | 0.22 | 0.22 |
| INDIA | 11,650 | 581 | 6,770 | 1,853 | 147 | 5,042 | 2,014 | 1,714 | 0.24 | 0.34 |
| MYANMAR | 299 | 647 | 194 | 107 | | 201 | | 99 | 0.49 | 0.49 |
| PAKISTAN | 2,914 | 712 | 2,076 | 290 | 402 | 2,271 | 80 | 417 | 0.18 | 0.18 |
| SRI LANKA | | | | 0 | 2 | 2 | | 0 | 0.11 | 0.11 |
| **S. Asia** | **14,936** | **608** | **9,085** | **2,352** | **1,538** | **8,423** | **2,111** | **2,441** | **0.23** | **0.29** |
| IRAN | 91 | 713 | 65 | 38 | 61 | 131 | | 33 | 0.25 | 0.25 |
| IRAQ | 19 | 360 | 7 | 1 | 6 | 13 | | 1 | 0.09 | 0.09 |
| ISRAEL | 6 | 1,809 | 11 | 1 | | | 11 | 1 | 0.11 | |
| SYRIA | 103 | 976 | 100 | 184 | | 100 | 2 | 182 | 1.79 | 1.82 |
| TURKEY | 451 | 1,686 | 760 | 319 | 876 | 1,400 | 115 | 440 | 0.29 | 0.31 |
| **Sub total** | **709** | **1,352** | **958** | **550** | **954** | **1,669** | **129** | **664** | **0.81** | **0.40** |
| **WORLD TOTAL** | **32,686** | **804** | **26,270** | **16,829** | **8,740** | **23,486** | **8,867** | **19,485** | **0.83** | **0.83** |

*/ Ending stocks divided by consumption plus exports.

**/ Ending stocks divided by consumption.

Subtotals and total include countries not shown.

## 2014/15 SUPPLY AND USE OF COTTON BY COUNTRY April 1, 2015

| | AREA | YIELD | PROD | BEG STKS | IMPORTS | CONS | EXPORTS | END STKS | S/U * | S/MU ** |
|---|---|---|---|---|---|---|---|---|---|---|
| | 000 Ha | Kgs/Ha | 000 Metric Tons | | | | | | Ratio | Ratio |
| CANADA | | | | 0 | 1 | 1 | | 0 | 0.11 | 0.11 |
| CUBA | 4 | 272 | 1 | 1 | 2 | 3 | | 1 | 0.19 | 0.19 |
| DOM. REP. | | | | | 1 | 1 | | 0 | 0.47 | 0.47 |
| MEXICO | 181 | 1,484 | 268 | 146 | 211 | 412 | 30 | 184 | 0.42 | 0.45 |
| USA | 3,929 | 903 | 3,549 | 651 | 2 | 795 | 2,330 | 1,078 | 0.34 | 1.36 |
| **N. America** | **4,118** | **927** | **3,819** | **799** | **217** | **1,213** | **2,360** | **1,263** | **0.35** | **1.04** |
| EL SALVADOR | | | | 8 | 27 | 27 | | 8 | 0.31 | 0.31 |
| GUATEMALA | | | | 9 | 21 | 21 | | 9 | 0.45 | 0.45 |
| HONDURAS | 0 | 319 | 0 | 0 | | | | 0 | | |
| **C. America** | **2** | **515** | **1** | **18** | **48** | **49** | **0** | **18** | **0.37** | **0.37** |
| ARGENTINA | 533 | 567 | 302 | 268 | 5 | 142 | 94 | 339 | 1.43 | 2.39 |
| BOLIVIA | 5 | 537 | 3 | 1 | 1 | 3 | 1 | 1 | 0.21 | 0.26 |
| BRAZIL | 976 | 1,548 | 1,511 | 1,189 | 28 | 838 | 676 | 1,214 | 0.80 | 1.45 |
| CHILE | | | | 0 | 0 | 0 | | 0 | 0.15 | 0.15 |
| COLOMBIA | 33 | 865 | 29 | 20 | 66 | 87 | 1 | 27 | 0.31 | 0.31 |
| ECUADOR | 1 | 440 | 1 | 2 | 13 | 13 | | 2 | 0.13 | 0.13 |
| PARAGUAY | 26 | 436 | 11 | 9 | | 8 | 6 | 6 | 0.38 | 0.69 |
| PERU | 36 | 792 | 29 | 17 | 67 | 87 | 1 | 25 | 0.28 | 0.28 |
| URUGUAY | | | | 0 | 0 | 0 | | 0 | 0.59 | 0.59 |
| VENEZUELA | 15 | 368 | 6 | 1 | 7 | 8 | | 6 | 0.68 | 0.68 |
| **S. America** | **1,626** | **1,163** | **1,891** | **1,506** | **188** | **1,186** | **779** | **1,619** | **0.82** | **1.36** |
| ALGERIA | | | | 1 | 3 | 3 | | 1 | 0.19 | 0.19 |
| EGYPT | 158 | 806 | 127 | 47 | 78 | 92 | 60 | 100 | 0.66 | 1.09 |
| MOROCCO | | | | 4 | 30 | 30 | | 4 | 0.14 | 0.14 |
| SUDAN | 67 | 415 | 28 | 9 | | 19 | 9 | 9 | 0.32 | 0.48 |
| TUNISIA | | | | 3 | 13 | 13 | | 3 | 0.21 | 0.21 |
| **N. Africa** | **225** | **689** | **155** | **64** | **124** | **157** | **69** | **117** | **0.52** | **0.75** |
| BENIN | 379 | 409 | 155 | 15 | | 4 | 104 | 62 | 0.58 | 15.52 |
| BURKINA FASO | 644 | 443 | 285 | 60 | | 4 | 188 | 153 | 0.80 | 38.20 |
| CAMEROON | 203 | 571 | 116 | 48 | | 2 | 104 | 58 | 0.55 | 30.49 |
| CENT. AFR. REP. | 36 | 230 | 8 | 3 | | | 8 | 3 | 0.40 | |
| CHAD | 256 | 199 | 51 | 12 | | 1 | 39 | 24 | 0.62 | 48.51 |
| COTE D'IVOIRE | 414 | 466 | 193 | 86 | | 2 | 141 | 136 | 0.95 | 66.52 |
| GUINEA | 12 | 272 | 3 | 1 | | | 4 | 1 | 0.36 | |
| MADAGASCAR | | | | 3 | | | | 3 | | |
| MALI | 570 | 405 | 231 | 68 | | 3 | 211 | 85 | 0.40 | 28.34 |
| NIGER | 5 | 448 | 2 | 0 | | 1 | 1 | 0 | 0.11 | 0.25 |
| SENEGAL | 31 | 343 | 11 | 4 | | 1 | 10 | 4 | 0.33 | 4.71 |
| TOGO | 110 | 427 | 47 | 7 | | | 41 | 13 | 0.33 | |
| **F. Africa** | **2,661** | **414** | **1,102** | **307** | | **17** | **850** | **543** | **0.63** | **31.61** |
| ANGOLA | 3 | 302 | 1 | 0 | | 1 | 0 | 0 | 0.25 | 0.41 |
| ETHIOPIA | 129 | 314 | 40 | 3 | 15 | 45 | 1 | 12 | 0.26 | 0.27 |
| GHANA | 16 | 366 | 6 | 2 | 1 | 1 | 6 | 2 | 0.25 | 1.31 |
| KENYA | 21 | 185 | 4 | 1 | 2 | 5 | 0 | 1 | 0.14 | 0.16 |
| MALAWI | 134 | 271 | 36 | 26 | | 3 | 38 | 22 | 0.53 | 7.23 |
| MOZAMBIQUE | 134 | 279 | 37 | 29 | | | 42 | 24 | 0.58 | |
| NIGERIA | 298 | 205 | 61 | 26 | 1 | 19 | 41 | 28 | 0.47 | 1.46 |
| SOUTH AFRICA | 16 | 1,190 | 19 | 3 | 15 | 21 | 8 | 9 | 0.30 | 0.42 |
| TANZANIA | 336 | 253 | 85 | 114 | | 34 | 46 | 120 | 1.51 | 3.56 |
| UGANDA | 61 | 431 | 26 | 20 | | 2 | 22 | 22 | 0.90 | 9.20 |
| CONGO, DR | | | | 2 | 8 | 8 | | 2 | 0.27 | 0.27 |
| ZAMBIA | 287 | 185 | 53 | 62 | | | 39 | 75 | 1.92 | |
| ZIMBABWE | 238 | 228 | 54 | 34 | | 4 | 56 | 28 | 0.48 | 7.58 |
| **S. Africa** | **1,697** | **252** | **428** | **328** | **63** | **168** | **301** | **351** | **0.75** | **2.09** |
| KAZAKHSTAN | 129 | 679 | 55 | 45 | 0 | 11 | 44 | 45 | 0.82 | 4.00 |
| KYRGYZSTAN | 23 | 822 | 19 | 4 | 3 | 1 | 21 | 4 | 0.18 | 4.24 |
| TAJIKISTAN | 175 | 539 | 94 | 33 | | 9 | 87 | 30 | 0.31 | 3.18 |
| TURKMENISTAN | 545 | 482 | 327 | 118 | | 152 | 144 | 149 | 0.51 | 0.98 |
| UZBEKISTAN | 1,275 | 737 | 940 | 305 | 1 | 345 | 605 | 296 | 0.31 | 0.86 |
| **C. Asia** | **2,147** | **3,260** | **1,435** | **504** | **4** | **518** | **901** | **525** | **2.14** | **1.01** |

## 2014/15 SUPPLY & USE OF COTTON BY COUNTRY (cont'd) April 1, 2015

| | AREA | YIELD | PROD | BEG STKS | IMPORTS | CONS | EXPORTS | END STKS | S/U * | S/MU ** |
|---|---|---|---|---|---|---|---|---|---|---|
| | 000 Ha | Kgs/Ha | 000 Metric Tons | | | | | | Ratio | Ratio |
| AUSTRIA | | | | 3 | 4 | 4 | 1 | 2 | 0.51 | 0.60 |
| AZERBAIJAN | 28 | 538 | 15 | 14 | | 17 | 0 | 12 | 0.70 | 0.70 |
| BELARUS | | | | 4 | 11 | 11 | | 4 | 0.34 | 0.34 |
| BELGIUM | | | | 5 | 10 | 4 | 6 | 5 | 0.51 | 1.33 |
| BULGARIA | 0 | 324 | 0 | 2 | 4 | 4 | 1 | 2 | 0.33 | 0.41 |
| CZECH REP. | | | | 0 | 3 | 3 | 0 | 0 | 0.13 | 0.13 |
| DENMARK | | | | | 0 | 0 | | | | |
| ESTONIA | | | | | | | | | | |
| FINLAND | | | | | | | | | | |
| FRANCE | | | | 3 | 16 | 13 | 3 | 3 | 0.16 | 0.20 |
| GERMANY | | | | 16 | 32 | 32 | 6 | 11 | 0.28 | 0.33 |
| GREECE | 275 | 997 | 274 | 47 | 1 | 19 | 202 | 102 | 0.46 | 5.35 |
| HUNGARY | | | | 0 | 1 | 1 | | 0 | 0.57 | 0.57 |
| IRELAND | | | | 0 | 0 | 0 | | 0 | 0.06 | 0.06 |
| ITALY | | | | 21 | 48 | 39 | 4 | 25 | 0.58 | 0.64 |
| LATVIA | | | | 0 | 0 | 0 | 0 | 0 | 0.52 | 1.00 |
| LITHUANIA | | | | 0 | | | | 0 | | |
| MOLDOVA | | | | 1 | 2 | 2 | | 1 | 0.34 | 0.34 |
| NETHERLANDS | | | | 0 | 5 | 5 | | 0 | 0.10 | |
| NORWAY | | | | | | | | | | |
| POLAND | | | | 0 | 7 | 7 | | 0 | 0.05 | 0.05 |
| PORTUGAL | | | | 8 | 33 | 33 | | 8 | 0.25 | 0.25 |
| ROMANIA | | | | 0 | 1 | 1 | | 0 | 0.05 | 0.05 |
| RUSSIA | 1 | 521 | 1 | 12 | 49 | 49 | | 13 | 0.26 | 0.26 |
| SLOVAK REP. | | | | | | | | | | |
| SPAIN | 75 | 984 | 73 | 20 | 3 | 5 | 67 | 25 | 0.34 | 4.50 |
| SWEDEN | | | | 0 | | | | 0 | | |
| SWITZERLAND | | | | 0 | 3 | 3 | 0 | 0 | 0.11 | 0.12 |
| UKRAINE | | | | 0 | 2 | 2 | | 0 | 0.19 | 0.19 |
| UNITED KINGDOM | | | | 0 | 0 | 0 | | 0 | 0.45 | 0.45 |
| FORMER YUGOSLAVIA | | | | 1 | 6 | 6 | | 1 | 0.23 | 0.23 |
| **Europe** | **380** | **956** | **364** | **161** | **244** | **262** | **290** | **216** | | **0.83** |
| **Including EU-28** | **350** | **994** | **348** | **127** | **168** | **170** | **290** | **184** | **0.40** | **1.08** |
| CHINA | 4,310 | 1,495 | 6,444 | 12,074 | 1,538 | 7,905 | 4 | 12,146 | 1.54 | 1.54 |
| TAIWAN | | | | 41 | 183 | 183 | | 41 | 0.23 | 0.23 |
| HONG KONG | | | | 33 | 4 | | 4 | 33 | 7.89 | |
| **Sub total** | **4,310** | **1,495** | **6,444** | **12,148** | **1,724** | **8,088** | **8** | **12,220** | **1.51** | **1.51** |
| AUSTRALIA | 210 | 2,238 | 470 | 189 | 0 | 7 | 560 | 93 | 0.16 | 12.88 |
| INDONESIA | 9 | 603 | 5 | 86 | 734 | 688 | 1 | 136 | 0.20 | 0.20 |
| JAPAN | | | | 24 | 71 | 71 | | 24 | 0.33 | 0.33 |
| KOREA, D.R. | | | | 1 | 5 | 5 | | 1 | 0.24 | 0.24 |
| KOREA, REP. | | | | 72 | 279 | 279 | | 72 | 0.26 | 0.26 |
| MALAYSIA | | | | 33 | 78 | 16 | 58 | 37 | 0.51 | 2.38 |
| PHILIPPINES | 0 | 569 | 0 | 2 | 7 | 7 | | 2 | 0.30 | 0.30 |
| SINGAPORE | | | | 0 | 0 | | 0 | 0 | 0.20 | |
| THAILAND | 2 | 518 | 1 | 53 | 362 | 342 | | 75 | 0.22 | 0.22 |
| VIETNAM | 12 | 465 | 6 | 83 | 808 | 747 | | 150 | 0.20 | 0.20 |
| **E. Asia** | **252** | **1,939** | **490** | **546** | **2,345** | **2,170** | **618** | **593** | **0.21** | **0.27** |
| AFGHANISTAN | 45 | 414 | 19 | 16 | | 4 | 16 | 14 | 0.66 | 3.15 |
| BANGLADESH | 25 | 998 | 25 | 194 | 965 | 954 | | 230 | 0.24 | 0.24 |
| INDIA | 12,250 | 551 | 6,749 | 1,714 | 230 | 5,244 | 1,089 | 2,360 | 0.37 | 0.45 |
| MYANMAR | 299 | 650 | 195 | 99 | 11 | 201 | | 104 | 0.52 | 0.52 |
| PAKISTAN | 2,840 | 810 | 2,300 | 417 | 367 | 2,308 | 33 | 743 | 0.32 | 0.32 |
| SRI LANKA | | | | 0 | 2 | 2 | | 0 | 0.11 | 0.11 |
| **S. Asia** | **15,462** | **601** | **9,290** | **2,441** | **1,575** | **8,715** | **1,138** | **3,452** | **0.35** | **0.40** |
| IRAN | 91 | 720 | 66 | 33 | 69 | 131 | | 36 | 0.28 | 0.28 |
| IRAQ | 19 | 362 | 7 | 1 | 6 | 13 | | 1 | 0.09 | 0.09 |
| ISRAEL | 7 | 1,786 | 13 | 1 | | | 13 | 1 | 0.10 | |
| SYRIA | 72 | 981 | 70 | 182 | | 95 | 3 | 155 | 1.59 | 1.63 |
| TURKEY | 484 | 1,750 | 847 | 440 | 773 | 1,344 | 60 | 655 | 0.47 | 0.49 |
| **Sub total** | **712** | **2,921** | **1,018** | **664** | **859** | **1,608** | **76** | **856** | **1.48** | **0.53** |
| **WORLD TOTAL** | **33,573** | **787** | **26,428** | **19,485** | **7,390** | **24,143** | **7,390** | **21,771** | **0.90** | **0.90** |

*/ Ending stocks divided by consumption plus exports.

**/ Ending stocks divided by consumption.

Subtotals and total include countries not shown.

## 2015/16 SUPPLY AND USE OF COTTON BY COUNTRY April 1, 2015

| | AREA | YIELD | PROD | BEG STKS | IMPORTS | CONS | EXPORTS | END STKS | S/U * | S/MU ** |
|---|---|---|---|---|---|---|---|---|---|---|
| | 000 Ha | Kgs/Ha | 000 Metric Tons | | | | | | Ratio | Ratio |
| CANADA | | | | 0 | 1 | 1 | | 0 | 0.10 | 0.10 |
| CUBA | 4 | 272 | 1 | 1 | 2 | 3 | | 1 | 0.19 | 0.19 |
| DOM. REP. | | | | | 1 | 1 | | 0 | 0.47 | 0.47 |
| MEXICO | 163 | 1,484 | 241 | 184 | 213 | 425 | 30 | 184 | 0.40 | 0.43 |
| USA | 3,379 | 912 | 3,082 | 1,078 | 2 | 807 | 2,278 | 1,078 | 0.35 | 1.34 |
| **N. America** | **3,550** | **937** | **3,326** | **1,263** | **219** | **1,237** | **2,308** | **1,263** | **0.36** | **1.02** |
| EL SALVADOR | | | | 8 | 27 | 27 | | 8 | 0.31 | 0.31 |
| GUATEMALA | | | | 9 | 21 | 21 | | 9 | 0.45 | 0.45 |
| HONDURAS | 0 | 319 | 0 | 0 | | | | 0 | | |
| **C. America** | **2** | **515** | **1** | **18** | **48** | **49** | **0** | **18** | **0.37** | **0.37** |
| ARGENTINA | 533 | 567 | 302 | 339 | 4 | 144 | 156 | 345 | 1.15 | 2.39 |
| BOLIVIA | 5 | 537 | 3 | 1 | 1 | 3 | 1 | 1 | 0.21 | 0.26 |
| BRAZIL | 966 | 1,533 | 1,481 | 1,214 | 27 | 853 | 714 | 1,156 | 0.74 | 1.36 |
| CHILE | | | | 0 | 0 | 0 | | 0 | 0.15 | 0.15 |
| COLOMBIA | 33 | 865 | 29 | 27 | 59 | 87 | 1 | 27 | 0.31 | 0.31 |
| ECUADOR | 1 | 440 | 1 | 2 | 13 | 13 | | 2 | 0.13 | 0.13 |
| PARAGUAY | 21 | 436 | 9 | 6 | | 6 | 6 | 2 | 0.19 | 0.37 |
| PERU | 32 | 792 | 26 | 25 | 62 | 87 | 1 | 25 | 0.28 | 0.28 |
| URUGUAY | | | | 0 | 0 | 0 | | 0 | 0.59 | 0.59 |
| VENEZUELA | 15 | 368 | 6 | 6 | 3 | 8 | | 6 | 0.68 | 0.68 |
| **S. America** | **1,607** | **1,154** | **1,856** | **1,619** | **169** | **1,202** | **879** | **1,563** | **0.75** | **1.30** |
| ALGERIA | | | | 1 | 3 | 3 | | 1 | 0.19 | 0.19 |
| EGYPT | 103 | 806 | 83 | 100 | 78 | 93 | 68 | 100 | 0.62 | 1.08 |
| MOROCCO | | | | 4 | 30 | 30 | | 4 | 0.14 | 0.14 |
| SUDAN | 54 | 415 | 22 | 9 | | 19 | 3 | 9 | 0.40 | 0.47 |
| TUNISIA | | | | 3 | 13 | 13 | | 3 | 0.21 | 0.21 |
| **N. Africa** | **156** | **672** | **105** | **117** | **124** | **158** | **71** | **117** | **0.51** | **0.74** |
| BENIN | 372 | 395 | 147 | 62 | | 4 | 129 | 76 | 0.57 | 18.98 |
| BURKINA FASO | 631 | 431 | 272 | 153 | | 4 | 264 | 157 | 0.58 | 39.15 |
| CAMEROON | 199 | 535 | 107 | 58 | | 2 | 104 | 59 | 0.56 | 31.02 |
| CENT. AFR. REP. | 35 | 230 | 8 | 3 | | | 8 | 3 | 0.40 | |
| CHAD | 251 | 178 | 45 | 24 | | 1 | 47 | 22 | 0.46 | 43.33 |
| COTE D'IVOIRE | 406 | 464 | 189 | 136 | | 2 | 183 | 139 | 0.75 | 67.84 |
| GUINEA | 12 | 273 | 3 | 1 | | | 3 | 1 | 0.41 | |
| MADAGASCAR | | | | 3 | | | | 3 | | |
| MALI | 559 | 394 | 220 | 85 | | 3 | 200 | 102 | 0.50 | 34.09 |
| NIGER | 5 | 448 | 2 | 0 | | 1 | 1 | 0 | 0.11 | 0.25 |
| SENEGAL | 26 | 378 | 10 | 4 | | 1 | 9 | 3 | 0.34 | 4.42 |
| TOGO | 94 | 354 | 33 | 13 | | | 37 | 9 | 0.25 | |
| **F. Africa** | **2,589** | **400** | **1,035** | **543** | | **17** | **985** | **575** | **0.57** | **33.47** |
| ANGOLA | 3 | 302 | 1 | 0 | | 1 | 0 | 0 | 0.35 | 0.48 |
| ETHIOPIA | 129 | 314 | 41 | 12 | 22 | 46 | 1 | 28 | 0.61 | 0.62 |
| GHANA | 16 | 366 | 6 | 2 | 1 | 1 | 6 | 2 | 0.25 | 1.31 |
| KENYA | 21 | 185 | 4 | 1 | 2 | 5 | 1 | 1 | 0.11 | 0.12 |
| MALAWI | 114 | 271 | 31 | 22 | | 3 | 31 | 18 | 0.53 | 6.05 |
| MOZAMBIQUE | 114 | 279 | 32 | 24 | | | 35 | 21 | 0.58 | |
| NIGERIA | 253 | 205 | 52 | 28 | 1 | 19 | 39 | 22 | 0.37 | 1.14 |
| SOUTH AFRICA | 15 | 1,190 | 18 | 9 | 7 | 21 | 4 | 9 | 0.35 | 0.41 |
| TANZANIA | 329 | 221 | 73 | 120 | | 34 | 56 | 102 | 1.13 | 2.97 |
| UGANDA | 61 | 431 | 26 | 22 | | 2 | 38 | 8 | 0.21 | 3.49 |
| CONGO, DR | | | | 2 | 8 | 8 | | 2 | 0.27 | 0.27 |
| ZAMBIA | 289 | 150 | 43 | 75 | | | 51 | 68 | 1.35 | |
| ZIMBABWE | 239 | 228 | 55 | 28 | | 4 | 46 | 33 | 0.66 | 8.80 |
| **S. Africa** | **1,606** | **239** | **384** | **351** | **62** | **168** | **309** | **319** | **0.67** | **1.90** |
| KAZAKHSTAN | 129 | 441 | 57 | 45 | 0 | 11 | 48 | 43 | 0.73 | 3.79 |
| KYRGYZSTAN | 23 | 822 | 19 | 4 | 4 | 1 | 20 | 5 | 0.24 | 5.39 |
| TAJIKISTAN | 166 | 539 | 90 | 30 | | 9 | 83 | 27 | 0.30 | 2.88 |
| TURKMENISTAN | 545 | 482 | 263 | 149 | | 155 | 105 | 151 | 0.58 | 0.97 |
| UZBEKISTAN | 1,262 | 730 | 921 | 296 | 1 | 346 | 595 | 278 | 0.30 | 0.80 |
| **C. Asia** | **2,126** | **3,015** | **1,350** | **525** | **5** | **523** | **851** | **505** | **2.14** | **0.96** |

## 2015/16 SUPPLY & USE OF COTTON BY COUNTRY (cont'd) April 1, 2015

| | AREA | YIELD | PROD | BEG STKS | IMPORTS | CONS | EXPORTS | END STKS | S/U * | S/MU ** |
|---|---|---|---|---|---|---|---|---|---|---|
| | 000 Ha | Kgs/Ha | 000 Metric Tons | | | | | | Ratio | Ratio |
| AUSTRIA | | | | 2 | 3 | 4 | | 2 | 0.57 | 0.57 |
| AZERBAIJAN | 28 | 538 | 15 | 12 | | 17 | | 10 | 0.58 | 0.58 |
| BELARUS | | | | 4 | 11 | 11 | | 4 | 0.34 | 0.34 |
| BELGIUM | | | | 5 | 9 | 4 | 6 | 4 | 0.41 | 1.08 |
| BULGARIA | 0 | 324 | 0 | 2 | 4 | 4 | 1 | 1 | 0.22 | 0.26 |
| CZECH REP. | | | | 0 | 4 | 3 | 0 | 1 | 0.54 | 0.54 |
| DENMARK | | | | | 0 | 0 | | | | |
| ESTONIA | | | | | | | | | | |
| FINLAND | | | | | | | | | | |
| FRANCE | | | | 3 | 15 | 12 | 2 | 3 | 0.17 | 0.21 |
| GERMANY | | | | 11 | 31 | 32 | 5 | 4 | 0.11 | 0.12 |
| GREECE | 248 | 997 | 247 | 102 | 1 | 19 | 229 | 102 | 0.41 | 5.38 |
| HUNGARY | | | | 0 | 0 | 0 | | 0 | 0.38 | 0.38 |
| IRELAND | | | | 0 | 0 | 0 | | 0 | 0.06 | 0.06 |
| ITALY | | | | 25 | 39 | 39 | 4 | 21 | 0.49 | 0.54 |
| LATVIA | | | | 0 | 0 | 0 | 0 | 0 | 0.52 | 1.00 |
| LITHUANIA | | | | 0 | | | | 0 | | |
| MOLDOVA | | | | 1 | 2 | 2 | | 1 | 0.34 | 0.34 |
| NETHERLANDS | | | | 0 | 4 | 4 | | 0 | 0.10 | |
| NORWAY | | | | | | | | | | |
| POLAND | | | | 0 | 7 | 7 | | 0 | 0.05 | 0.05 |
| PORTUGAL | | | | 8 | 29 | 32 | | 5 | 0.16 | 0.16 |
| ROMANIA | | | | 0 | 1 | 1 | | 0 | 0.06 | 0.06 |
| RUSSIA | 1 | 521 | 1 | 13 | 47 | 47 | | 13 | 0.28 | 0.28 |
| SLOVAK REP. | | | | | | | | | | |
| SPAIN | 71 | 775 | 55 | 25 | 3 | 5 | 54 | 23 | 0.39 | 4.38 |
| SWEDEN | | | | 0 | | | | 0 | | |
| SWITZERLAND | | | | 0 | 3 | 3 | 0 | 0 | 0.12 | 0.12 |
| UKRAINE | | | | 0 | 2 | 2 | | 0 | 0.20 | 0.20 |
| UNITED KINGDOM | | | | 0 | 0 | 0 | | 0 | 0.45 | 0.45 |
| FORMER YUGOSLAVIA | | | | 1 | 6 | 6 | | 1 | 0.23 | 0.23 |
| **Europe** | **349** | **910** | **318** | **216** | **225** | **259** | **302** | **199** | | **0.77** |
| **Including EU-28** | **319** | **947** | **302** | **184** | **153** | **168** | **302** | **168** | **0.36** | **1.00** |
| CHINA | 3,793 | 1,425 | 5,403 | 12,146 | 1,818 | 7,945 | 4 | 11,418 | 1.44 | 1.44 |
| TAIWAN | | | | 41 | 174 | 174 | | 41 | 0.24 | 0.24 |
| HONG KONG | | | | 33 | 4 | | 2 | 35 | 18.56 | |
| **Sub total** | **3,793** | **1,425** | **5,403** | **12,220** | **1,995** | **8,118** | **6** | **11,494** | **1.41** | **1.42** |
| AUSTRALIA | 231 | 2,260 | 522 | 93 | 0 | 7 | 403 | 205 | 0.50 | 29.10 |
| INDONESIA | 8 | 603 | 5 | 136 | 805 | 750 | | 195 | 0.26 | 0.26 |
| JAPAN | | | | 24 | 63 | 64 | | 23 | 0.36 | 0.36 |
| KOREA, D.R. | | | | 1 | 5 | 5 | | 1 | 0.24 | 0.24 |
| KOREA, REP. | | | | 72 | 265 | 279 | | 58 | 0.21 | 0.21 |
| MALAYSIA | | | | 37 | 78 | 16 | 62 | 37 | 0.48 | 2.38 |
| PHILIPPINES | 0 | 569 | 0 | 2 | 7 | 7 | | 2 | 0.30 | 0.30 |
| SINGAPORE | | | | 0 | 0 | | 0 | 0 | 2.17 | |
| THAILAND | 2 | 518 | 1 | 75 | 372 | 355 | | 93 | 0.26 | 0.26 |
| VIETNAM | 11 | 465 | 5 | 150 | 822 | 825 | | 153 | 0.18 | 0.18 |
| **E. Asia** | **271** | **1,991** | **540** | **593** | **2,419** | **2,317** | **465** | **770** | **0.28** | **0.33** |
| AFGHANISTAN | 45 | 414 | 19 | 14 | | 4 | 14 | 14 | 0.74 | 3.15 |
| BANGLADESH | 25 | 998 | 25 | 230 | 967 | 992 | | 230 | 0.23 | 0.23 |
| INDIA | 11,638 | 554 | 6,449 | 2,360 | 230 | 5,270 | 1,376 | 2,393 | 0.36 | 0.45 |
| MYANMAR | 239 | 653 | 156 | 104 | 51 | 207 | | 104 | 0.50 | 0.50 |
| PAKISTAN | 2,670 | 767 | 2,049 | 743 | 383 | 2,365 | 33 | 777 | 0.32 | 0.33 |
| SRI LANKA | | | | 0 | 2 | 2 | | 1 | 0.36 | 0.36 |
| **S. Asia** | **14,619** | **595** | **8,700** | **3,452** | **1,633** | **8,843** | **1,423** | **3,519** | **0.34** | **0.40** |
| IRAN | 91 | 720 | 66 | 36 | 66 | 131 | | 36 | 0.28 | 0.28 |
| IRAQ | 19 | 362 | 7 | 1 | 7 | 13 | | 2 | 0.18 | 0.18 |
| ISRAEL | 6 | 1,786 | 11 | 1 | | | 11 | 1 | 0.12 | |
| SYRIA | 72 | 981 | 70 | 155 | | 87 | 10 | 128 | 1.31 | 1.46 |
| TURKEY | 455 | 1,785 | 812 | 655 | 699 | 1,411 | 60 | 695 | 0.47 | 0.49 |
| **Sub total** | **682** | **2,952** | **981** | **856** | **783** | **1,668** | **82** | **870** | **1.40** | 0.52 |
| **WORLD TOTAL** | **31,332** | **766** | **23,991** | **21,771** | **7,682** | **24,552** | **7,682** | **21,210** | **0.86** | **0.86** |

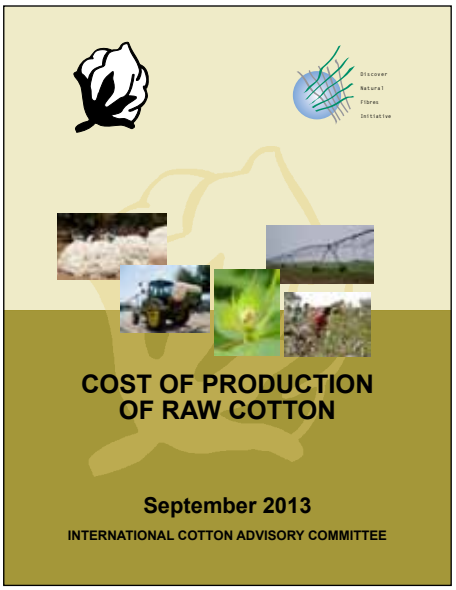
*/ Ending stocks divided by consumption plus exports.

**/ Ending stocks divided by consumption.

Subtotals and total include countries not shown.

# COST OF PRODUCTION OF RAW COTTON

## THE NEW EDITION: SEPTEMBER 2013




The report includes data by country for the 2012/13 season. Many countries are reporting data by region or type of cotton.

The costs of all field operations starting from pre-sowing to harvesting and ginning and economic and fixed costs have been determined and computed to determine the cost of production of cotton per hectare and per kilogram.

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