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# Cotton Statistics And News

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## ***Production Efficiency and Energy Usage in Cotton Production***

The Expert Panel on Social, Environmental and Economic Performance of Cotton Production has recently brought forth a fact sheet on the subject. Some of the main highlights in the sheet are given below:

The challenge to the agricultural community is to meet the food and fibre requirements of a rapidly growing population with limited availability of natural resources, specifically land, water and energy. Traditionally, the focus for improving production efficiency has been to either reduce the amount of resources required per unit of production or to increase production capacity using the same amount of resources. Ideally, the cotton industry will seek to achieve both to meet future food and fibre requirements, that is, increase production with reduced resources. Numerous examples of this are stated to exist today: conserving water by replacing surface irrigation with low pressure sprinklers or drip systems; reducing applied chemicals by replacement of insecticides with integrated pest management (IPM) strategies, Bt transgenic cotton varieties; and area-wide pest management, conserving energy by replacing mechanical weed control with herbicides and conservation tillage; and saving fertiliser resources by switching from uniform to variable rate application. All of these practices have increased production while reducing inputs. As about two-thirds of world cotton is produced by small holders in developing countries with very few inputs, a third approach should also be considered: To increase the use of applied resources to increase production efficiency on such farms.

According to the Expert Panel, Agriculture accounts for 70-75 per cent human consumption of

water. Global cotton production consumes three per cent of the total volume of water used for global crop production and in 2007 cotton was grown on 2.3 per cent of the world's arable land, making cotton production's water use proportionate to land use. Cotton supplies 36 per cent of the world's demand for textile fibres and despite a steep rise in demand over the last 40 years, cotton's total land requirements have remained essentially unchanged. During this same time period, the area of global agricultural land has grown by 10 per cent, but in per capita terms, agricultural land area has been in decline. This trend is expected to continue as land is increasingly limited and the world population is growing. For example, grain-producing land per capita in 2030 is projected to be just 0.08 hectares or just one-third of what was available in 1950. Although cotton land has been projected to increase by a modest amount in future, a similar trend would be expected as the world's population growth outpaces this increase.

The Expert Panel states that by 2050, the human population is projected to increase to about nine billion and this increased population density, coupled with changes in dietary habits in developing countries is expected to put tremendous pressure on agricultural land usage, and water and energy resources. Cotton will be competing for these resources with food crops and other non-food crops such as those used to produce biofuels. Yet, a synergy between cotton and food crops has been observed with small holders in Sub-Saharan African countries where cotton growers are producing atleast as much food as non-cotton growers.

Coming to the production efficiency concerning land use, it is stated that the past century has witnessed a steady increase in the efficiency of land use (expressed as the amount of fibre produced in one hectare of land) for cotton production. Cotton yields have doubled since 1965 while harvested hectares have remained relatively constant resulting in a 50 per cent decrease in the amount of land required to produce a kilogram of fibre. In comparison with the leading food crops, cotton is stated to closely rival wheat in making the greatest advances over this extended time period. However, for the period 2000-2008, as compared to 1965-1999, where the other commodities have either made relatively small gains or declined in productivity, cotton made dramatic increases. The World Bank's study is stated to have attributed accelerated gains to the greater use of transgenic varieties in most of the crops but for cotton increases in basic germplasm and better production efficiency, among other things, that have also been contributing factors. In contrast, in Sub-Saharan African countries, from the mid-1980s to 2005, the growth of cotton production resulted exclusively from area growth by small holding producers. Since then, cotton production has been stagnating at best, it is stated.

Regarding Water Use Efficiency, expressed as kilograms of output (fibre or seed cotton) per metre of water for cotton production is also stated to have improved. The mean Water Use Efficiency for various crops as per studies of FAO and other

researchers is reported to have been as under:

Crop	Mean Water Use Efficiency (kg/m3)
Wheat	1.09
Rice	1.00
Seed Cotton	0.65
Cotton Lint	0.23
Maize	1.80

The third factor studied was the role of energy in production efficiency. The energy required by cotton production over a range of global cotton production practices has been quantified. Energy efficiency is expressed as the amount of fibre produced per one Mega Joule (MJ). MJ for cotton is stated to have ranged from a high of 0.071 kg fibre/MJ of energy in the South-eastern United States to a low of 0.016 kg fibre/MJ energy for non-mechanised farms in South America. The high amount of variability has been attributed to differences in yields and the use of irrigation.

In addition to estimating total energy requirements, researchers have also looked at the energy contained in the cotton seed produced and it was found that six of the ten regional production scenarios could be atleast energy neutral to energy positive, that is, there is more energy in the seed than energy needed to produce the crop, even when accounting for losses in converting seed to energy. It has also been pointed out that this is a conservative estimate, as no attempt was made to include any crop products such as gin waste or cotton stalks in the energy calculations.

(Source: ICAC)

## Record Chinese Imports Boost World Cotton Trade in 2011-12 - ICAC

In its latest release on May 1, the International Cotton Advisory Committee (ICAC) states that global cotton trade is expected to rise by 13 percent to 8.6 million tonnes in 2011-12, driven by record imports by China. Imports by the rest of the world are projected to fall by 18 percent to 4.2 mt. China is expected to account for 52 percent of global imports this season.

The surge in Chinese imports is stated to have reduced the amount of cotton available in the rest of the world this season. US exports are expected to drop by 21 percent to 2.5 mt due to reduced supplies but shipments from India, Brazil and

Australia could reach record levels. As a result, while stocks in China are expected to more than double to 5 mt in 2011-12, stocks in the rest of the world will increase at a more moderate rate of 14 percent to 8.1 mt.

According to ICAC, world cotton area is expected to decrease by 7 percent to 33.6 million hectares in 2012-13 in response to lower prices, improving attractiveness of grains and soybeans and rising agricultural production costs. Based on average yields, world production could decline by 7 percent to 25.2 mt. The decline in production, it is stated, will be driven by China which is

expected to produce a crop of 6.4 mt or 13 percent lower than in 2011-12. Production is also expected to decline in India, Pakistan, Brazil and Turkey. U.S. production could rise by 11 percent to 3.8 mt despite reduced plantings, assuming improved weather and lower abandonment than in 2011-12.

ICAC states that after two seasons of decline, global cotton mill use is projected to increase by 4 percent to 24.1 mt in 2012-13, driven by improving economic growth and lower cotton prices. With global production exceeding global consumption again, global stocks are expected to continue to increase by 9 percent to 14.3 mt or 59 percent of global cotton mill use. The projected increase may weigh on international cotton prices in 2012-13.

The world cotton balance sheet as projected by the ICAC is given below:

#### World Cotton Supply and Distribution

	2010/11	2011/12	2012/13
	Million Tons		
Production	25.103	27.098	25.25
Consumption	24.579	23.224	24.05
Imports	7.667	8.649	8.27
Exports	7.617	8.649	8.27
Ending Stocks	9.218	13.092	14.29

*(Source: ICAC Press Release)*

### Inaugural Cotton International Global Summit Convenes World Cotton Industry

The 2012 Cotton International Global Summit was held on April 25-27 at the Landmark Bangkok Hotel in the heart of Southeast Asia organised by Cotton International in cooperation with ITMF.

Dramatic price swings, global economic uncertainty, and changing international trade patterns have caused unprecedented volatility and disruptions across the global cotton value chain. The 2012 Cotton International Global Summit provided a unique forum for all sectors of the world cotton industry to come together and work in concert in response to these market dynamics.

The Summit's theme, 'Turning Volatility into Competitive Advantage,' challenged delegates to collaborate and identify new opportunities that will maintain the health and vitality of the global cotton industry.

Because face-to-face interaction is so critical to building bridges and finding solutions during times of rapid change, the Global Summit brought together merchants, mills, industry organizations and allied industries from around the world in a unique format that fostered interactivity and engagement among delegates.

Headlined by a keynote presentation from Bashir Ali Mohammad, President of the International

Textile Manufacturers Federation and Chairman of Gul Ahmed Textiles in Pakistan, the Summit's agenda featured 17 expert speakers from the global cotton and textile industries in four Plenary sessions which focused on:

- Risk Management Strategies
- Trends in the Major Markets
- The Future of Global Trade
- Emerging Markets and Key Regions for Growth

The plenary sessions were held in the mornings to start the day with active dialogue among the delegates, while the afternoons were left open to attendees who could continue their discussions and schedule private business meetings to turn ideas into action, Mr. Mike McCue, Conference Chair for the Global Summit, informed.

'To effectively seize the opportunities in the current market environment, all sectors must work cohesively – as the panel of experts representing the different sectors reinforced, Mr. McCue said. 'Never before has it been as critical for all in the value chain to be as tightly connected as it is today. Businesses can't succeed by focusing solely on their own interests; they need to help their partners and customers find success as well, or the entire chain will break down', Mr. McCue added.

## UPCOUNTRY SPOT RATES

Standard Descriptions with Basic Grade & Staple  
in Millimetres based on Upper Half Mean Length  
[ By law 66 (A) (a) (4) ]

Spot Rate (Upcountry) 2011-12 Crop  
May 2012

Sr. No.	Growth	Grade Standard	Grade	Staple	Micronaire	Strength /GPT	7th	8th	9th	10th	11th	12th
1	P/H/R	ICS-101	Fine	Below 22mm	5.0 – 7.0	15	9701 (34500)	9617 (34200)	9617 (34200)	9617 (34200)	9505 (33800)	9701 (34500)
2	P/H/R	ICS-201	Fine	Below 22mm	5.0 – 7.0	15	9983 (35500)	9898 (35200)	9898 (35200)	9898 (35200)	9786 (34800)	9983 (35500)
3	GUJ	ICS-102	Fine	22mm	4.0 – 6.0	20	7396 (26300)	7311 (26000)	7255 (25800)	7452 (26500)	7311 (26000)	7396 (26300)
4	KAR	ICS-103	Fine	23mm	4.0 – 5.5	21	8436 (30000)	8352 (29700)	8352 (29700)	8352 (29700)	8211 (29200)	8436 (30000)
5	M/M	ICS-104	Fine	24mm	4.0 – 5.5	23	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.
6	P/H/R	ICS-202	Fine	26mm	3.5 – 4.9	26	9308 (33100)	9448 (33600)	9364 (33300)	9364 (33300)	9139 (32500)	9308 (33100)
7	M/M/A	ICS-105	Fine	26mm	3.0 – 3.4	25	8155 (29000)	8155 (29000)	8155 (29000)	8155 (29000)	8014 (28500)	8155 (29000)
8	M/M/A	ICS-105	Fine	26mm	3.5 – 4.9	25	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.
9	P/H/R	ICS-105	Fine	27mm	3.5 – 4.9	26	9701 (34500)	9701 (34500)	9645 (34300)	9645 (34300)	9420 (33500)	9701 (34500)
10	M/M/A	ICS-105	Fine	27mm	3.0 – 3.4	26	8436 (30000)	8436 (30000)	8436 (30000)	8436 (30000)	8295 (29500)	8436 (30000)
11	M/M/A	ICS-105	Fine	27mm	3.5 – 4.9	26	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.	N.Q.
12	P/H/R	ICS-105	Fine	28mm	3.5 – 4.9	27	10123 (36000)	10067 (35800)	10011 (35600)	10011 (35600)	9786 (34800)	10123 (36000)
13	M/M/A	ICS-105	Fine	28mm	3.5 – 4.9	27	9701 (34500)	9617 (34200)	9561 (34000)	9561 (34000)	9420 (33500)	9701 (34500)
14	GUJ	ICS-105	Fine	28mm	3.5 – 4.9	27	9842 (35000)	9758 (34700)	9673 (34400)	9673 (34400)	9420 (33500)	9842 (35000)
15	M/M/ A/K	ICS-105	Fine	29mm	3.5 – 4.9	28	9842 (35000)	9758 (34700)	9673 (34400)	9673 (34400)	9533 (33900)	9842 (35000)
16	GUJ	ICS-105	Fine	29mm	3.5 – 4.9	28	9983 (35500)	9898 (35200)	9814 (34900)	9814 (34900)	9561 (34000)	9983 (35500)
17	M/M/ A/K	ICS-105	Fine	30mm	3.5 – 4.9	29	9842 (35000)	9842 (35000)	9842 (35000)	9842 (35000)	9701 (34500)	9842 (35000)
18	M/M/A/	ICS-105	Fine	31mm	3.5 – 4.9	30	10123 (36000)	10039 (35700)	9983 (35500)	9983 (35500)	9842 (35000)	10123 (36000)
19	K/A/ T/O	ICS-106	Fine	32mm	3.5 – 4.9	31	10404 (37000)	10404 (37000)	10404 (37000)	10404 (37000)	10264 (36500)	10404 (37000)
20	M(P)/ K/T	ICS-107	Fine	34mm	3.0 - 3.8	33	12935 (46000)	12654 (45000)	12654 (45000)	12654 (45000)	12513 (44500)	12935 (46000)

(Note: Figures in bracket indicate prices in Rs./Candy) N.Q. = Not Quoted