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Technical Analysis

Price outlook for Gujarat-ICS-105, 29mm and ICE cotton futures
for the period 16/02/16 to 29/02/16

(The author is Director of Commtrendz Research and the views expressed in this column are his own and the author is not liable for any loss or damage, including without limitations, any profit or loss which may arise directly or indirectly from the use of above information.)

We will look into the Gujarat-ICS-105, 29mm prices along with other benchmarks and try to forecast price moves going forward.

As mentioned in the previous update, fundamental analysis involves studying and analysing various reports, data and based on that arriving at some possible direction for prices in the coming months or quarters.

Some of the recent fundamental drivers for the domestic cotton prices are:

- Cotton futures are slightly higher in line with international prices. Lower demand from spinning mills in the country is expected to keep domestic cotton prices under pressure going forward. This is despite India's cotton production which is estimated to fall in the current year due to lower acreage and drastically lower yields.

- Exports have however, shown a positive trend so far. The country's cotton shipments are expected to rise more than 21 per cent to 70 lakh bales during 2015-16 on the back of a spike in demand from Pakistan.

- As a result, India's textile ministry has upgraded its cotton export to 7 million bales for the

2015/16 season, 21 percent more than last year's 5.77 million bales. The International Cotton Advisory Committee (ICAC) predicted the country's average annual yield would fall by 22 percent.

- The Cotton Association of India (CAI) has estimated the total cotton availability for year 2015-16 at 449.65 lakh bales that includes this year's production of 357 lakh bales, a stock of 78.65 lakh bales of last year and 14 lakh bales imported cotton. This means that the country can expect a better export performance this year.

Some of the fundamental drivers for International cotton prices are:

- Cotton Benchmark futures in New York ended slightly lower on Friday, easing to their biggest weekly loss since September 2015 after days of selling pressure of weak commodities markets and a bearish U.S. government report.

- Global cotton inventory will fall in 2016/17 on higher demand, even as output is expected to rise by almost 3 percent, the International Cotton Advisory Committee (ICAC) said on Monday, in its first estimate for the upcoming season. The group projected production will be 23.08 million tons for the season that starts in August, up 2.8 percent from an estimated 22.46 million in the current 2015/16 year. Consumption will be 24.13 million tons, up 0.2 percent from a forecast of 24.08 million this year.

- Speculators switched to a bearish stance in cotton futures and options for the first time in a year,

EXPERT'S Column



Shri Gnanasekar Thiagarajan

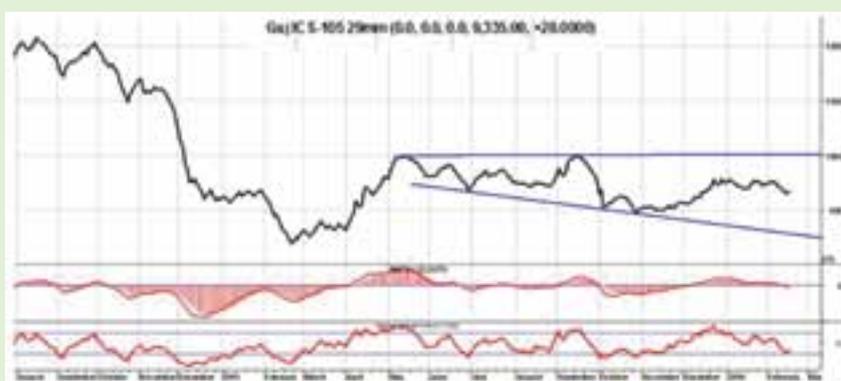
in the latest week as per CFTC. U.S. export sales of upland cotton totalled 227,700 running bales in the week ending Feb. 4, down 10 percent from the previous week, according to U.S. government data released.

Let us now dwell on some technical factors that influence price movements.

Strong resistance will be seen around 9500-600/qtl levels. Only a rise above 9,600/qtl, will revive our hopes of a rally back towards 9,800-10,000/qtl levels. Any dips to 9,200-300/qtl, is expected to hold support in the short-term. But the technical picture is not friendly and it is vulnerable for a fall again below 9,000 /qtl in the coming sessions or even lower. Our hopes for a bullish recovery past 9,500/qtl has been fading and it looks likely that prices could decline again.



Indicators are displaying neutral to weak tendencies now, which could see prices moving lower sharply. Indicators are neither overbought nor oversold and therefore moving in a neutral zone presently. We see resistances in the 9400-500 /qtl zone now. The MACD indicator has started showing bearish signs. Prices could push lower in the coming months with the possibility of a recovery on and off. But such recoveries might not sustain and most likely prices could decline again. Any unexpected rise above 9,600/qtl could hint that the bearishness could get postponed.



We will also look at the ICE Cotton futures charts for a possible direction in international prices.

As mentioned in the previous update, only a decline below 60.20c in the March contract now could warn that the bullish picture has been negated and strong decline could begin again. Such a fall could take prices lower towards 57c levels being the next important support followed by 55c. Presently, it looks more likely that prices could find strong resistance around 59-60.50c range and decline lower towards 55c initially and then lower towards a potential target near 40c. This is due to prices failing to rise higher in any meaningful way above 65c in the past few quarters. Our favoured view now expects prices to edge lower while 60-61c holds attempts to decline.



CONCLUSION:

Both the domestic and international prices are vulnerable to a huge fall in prices in the coming months. For Guj ICS supports are seen at 9,000-9,100 /qtl followed by 8,500 /qtl or even lower, and for ICE March cotton futures at 55-56c followed by 51c. Only an unexpected rise above 9,600 /qtl could confirm that the picture has changed to bullish in the domestic markets. In the international markets prices are indicating a bearish trend now, and the indicators have turned weak. It needs to surpass key resistance levels around 65c levels for the trend to turn convincingly bullish again, till then we remain bearish on both the markets.



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Prices of Biotech Planting Seed and Technology Fees for Biotech Traits

Farmers must pay for the biotech traits they want to use and the price of the trait, commonly referred to as the 'technology fee', varies from country to country, from trait to trait and even among the biotech genes within a given trait. In insect-resistant biotech cotton, many reasons exist for the variation in the technology fee, but the primary criteria that determine how much a farmer will be called upon to pay for a particular trait are: the savings derived from the decreased use of insecticides and the commensurate increases in income resulting from higher yields. Areas where the target insects are not serious pests are, of course, not candidates for the adoption of insect-resistant biotech cotton. Conversely, herbicide-tolerant cotton, particularly Roundup Ready Flex, requires increased use of herbicides. This makes it possible to increase yields by reducing weed infestation, but also increases the cost of weed control (due to repeated use of Roundup or similar products). There are areas where the target pests controlled by insect-resistant genes do attack the cotton crop, but the expected benefits may not justify the additional cost of the technology fee. Declining trends in pest pressure in certain areas may make some locations less attractive for the currently available insect-resistant biotech genes. A comparison of the cost of technology fees in relation to the expected benefits deriving from different traits may require a general reappraisal and may force technology providers to reduce the fees they are charging.

The ICAC has tried to keep track of the technology fees charged in different countries for various traits. Two articles dealing with this subject, "Biotech Cotton and Technology Fees", were published in the March and June issues of the ICAC RECORDER in 2009. The present article provides an update of the data published in 2009 for all the countries for which data were available. Comparable data were not available for some countries, and in others, the cotton grown is all biotech.

Technology Fee in Argentina

Argentina started to commercialize biotech cotton in the 1998/99 season but over the following ten years, the area planted to biotech varieties remained below 25% of the total cotton area. The primary reason for the poor adoption rate was the generally low level of yields and

net benefits deriving from the adoption of the technology. Another consideration may have been the high cost of the technology fee. Past performance notwithstanding, biotechnology-related developments in Argentina have gained momentum in the more recent past. The creation in 2007 of the Ministry of Science, Technology and Innovative Production focused on the development of state-of-the-art technology in several fields, including biotechnology, and this might be another factor to be taken into account. While the technology fee for a stacked-gene Bollgard II + Roundup Ready cotton is still untenable, it is believed that biotech cotton is currently planted on about 80-90% of the cotton area. Only stacked-gene Bollgard II cotton is approved for cultivation, so herbicide tolerance may be the driving force behind increases in the biotech cotton area. Argentine farmers discontinued the use of single-gene insect-resistant Bollgard cotton as of the 2011/12-crop season (table 1).



Table 1: Technology Fee for Biotech Planting Seed in Argentina

| Year | Price of Biotech Seed US\$/Ha | | |
|---------|-------------------------------|---------------|--------------------------|
| | Bollgard | Roundup Ready | Bollgard + Roundup Ready |
| 1998/99 | 76.0 | Not approved | - |
| 1999/00 | 70.0 | Approved | - |
| 2000/01 | 60.0 | | - |
| 2001/02 | 60.0 | 30.0 | - |
| 2002/03 | 60.0 | 30.0 | - |
| 2003/04 | 40.0 | 30.0 | - |
| 2004/05 | 40.0 | 30.0 | - |
| 2005/06 | 40.0 | 30.0 | - |
| 2006/07 | 40.0 | 20.0 | - |
| 2007/08 | 40.0 | 20.0 | - |
| 2008/09 | 40.0 | 20.0 | - |
| 2009/10 | Stopped | 120.0 | Approved |
| 2010/11 | - | 120.0 | 160.0 |
| 2011/12 | - | 120.0 | 155.0 |
| 2012/13 | - | 120.0 | 150.0 |
| 2013/14 | - | 80.0 | 150.0 |
| 2014/15 | - | 80.0 | 150.0 |



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Table 2: Technology Fee for Biotech Planting Seed in Brazil

| Year | Price of Biotech Planting Seed/Ha | | | | | | |
|---------|-----------------------------------|--------------|--------------|--------------|---------------|--------------|-----------------|
| | Bollgard | Bollgard II | RR | RR Flex | Bollgard + RR | BG II + RR | BG II + RR Flex |
| 1996/97 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 1997/98 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 1998/99 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 1999/00 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2000/01 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2001/02 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2002/03 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2003/04 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2004/05 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2005/06 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2006/07 | 111.0 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2007/08 | 109.0 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2008/09 | 117.0 | Not approved | Not approved | Not approved | ? | Not approved | Not approved |
| 2009/10 | - | Not approved | Not approved | Not approved | ? | Not approved | Not approved |
| 2010/11 | - | Not approved | Not approved | Not approved | US\$ 60,00 | Not approved | Not approved |
| 2011/12 | - | Not approved | Not approved | Not approved | US\$ 60,00 | Not approved | Not approved |
| 2012/13 | - | Not approved | Not approved | US\$ 80.00 | US\$ 60,00 | Not approved | ? |
| 2013/14 | - | Not approved | Not approved | US\$ 80.00 | US\$ 60,00 | Not approved | US\$ 240,00 |
| 2014/15 | - | Not approved | Not approved | US\$ 80.00 | US\$ 60,00 | Not approved | US\$ 240,00 |

| Year | Price of Biotech Planting Seed/Ha | | | | | |
|---------|-----------------------------------|-----------------|---------------------|------------------|--------------|------------------------|
| | Wide Strike | WideStrike + RR | WideStrike + RRflex | LibertyLink (LL) | GlyTol + LL | TwinLink + GlyTol + LL |
| 1996/97 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 1997/98 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 1998/99 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 1999/00 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2000/01 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2001/02 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2002/03 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2003/04 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2004/05 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2005/06 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2006/07 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2007/08 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2008/09 | Not approved | Not approved | Not approved | Not approved | Not approved | Not approved |
| 2009/10 | ? | Not approved | Not approved | ? | Not approved | Not approved |
| 2010/11 | ? | Not approved | Not approved | ? | Not approved | Not approved |
| 2011/12 | ? | Not approved | Not approved | ? | Not approved | Not approved |
| 2012/13 | US\$ 145.00 | Not approved | Not approved | US\$ 40.00 | Not approved | Not approved |
| 2013/14 | US\$ 145.00 | Not approved | Not approved | US\$ 40.00 | ? | ? |
| 2014/15 | US\$ 145.00 | Not approved | Not approved | US\$ 40.00 | US\$ 80.00 | US\$ 320.00 |

NOTES: 1. Bollgard II has been approved only stacked with RRflex
2. GlyTol has been approved only stacked with LibertyLink
3. TwinLink has been approved only stacked with Glytol and LibertyLink

Technology Fee in Brazil

In Brazil, cotton is at higher risk of being damaged by the bollworm than by any other insect. *H. armigera*, against which biotech cotton has proved to be the most effective recourse, was not even a pest on cotton back in 2006/07 when biotech cotton was commercialized, so its adoption rate was very slow. Given the fact that the presence of the bollworm has been verified over the last two to three years, demand for biotech cotton resistant

to the bollworm is expected to grow (table 2).

Technology Fee in China In China, the technology fee for biotech cotton, which was initially limited to cry 1Ac, has always differed from region to region. In 1999, the average price for a non-biotech seed was US\$0.35/kg as compared to US\$3.00/kg for biotech seed. Demand was high and locally produced genes were not in use yet, but the price differences eventually dwindled. (See complete data on table 3).

Table 3: Price of Biotech Planting Seed in China

| Year | Bollgard | | Guokang | | Seed Rate/Ha | Exchange Rate/US\$ |
|---------|----------|---------|----------|--------------|--------------|--------------------|
| | Yuan/ha | US\$/Ha | Yuan/ha | (In US\$/Ha) | (Kg) | (Yuan) |
| 1997/98 | 375 | 45.2 | - | - | 15.0 | 8.3 |
| 1998/99 | 375 | 45.3 | - | - | 15.0 | 8.3 |
| 1999/00 | 375 | 45.3 | 30.0 | 3.6 | 15.0 | 8.3 |
| 2000/01 | 375 | 45.3 | 30.0 | 3.6 | 15.0 | 8.3 |
| 2001/02 | 375 | 45.3 | 30.0 | 3.6 | 15.0 | 8.3 |
| 2002/03 | 375 | 45.2 | 30.0 | 3.6 | 15.0 | 8.3 |
| 2003/04 | 375 | 45.2 | 30.0 | 3.6 | 15.0 | 8.3 |
| 2004/05 | 375 | 45.2 | 30.0 | 3.6 | 15.0 | 8.3 |
| 2005/06 | 375 | 45.2 | 30.0 | 3.6 | 15.0 | 8.3 |
| 2006/07 | 375 | 46.6 | 30.0 | 3.7 | 15.0 | 8.1 |
| 2007/08 | 300 | 38.6 | 2.0 | 0.2 | 12.0 | 7.8 |
| 2008/09 | 250 | 34.7 | 0 to 1.5 | 0 to 0.21 | 10.0 | 7.2 |
| 2009/10 | 250 | 36.5 | 0 to 1.5 | 0 to 0.22 | 10.0 | 6.9 |
| 2010/11 | - | - | 270.0 | 40.9 | 22.5 | 6.6 |
| 2011/12 | - | - | 270.0 | 40.9 | 22.5 | 6.2 |
| 2012/13 | - | - | 270.0 | 40.9 | 22.5 | 6.2 |
| 2013/14 | - | - | 225.0 | 36.3 | 22.5 | 6.2 |
| 2014/15 | - | - | 203.0 | 32.7 | 22.5 | 6.2 |

NOTES: 1. Exchange rate is for February 15 each year, which is high time for seed sale.
2. There have been no Bollgard seed in China market since 2010.

Table 4: Technology Fee for Biotech Planting Seed in Colombia (US\$/kg)

| Year | Conventional + RR | | Bollgard I | | Bollgard | | Bollgard + RR | | Bollgard II + RR Flex | | Conventional Seed | |
|---------|-------------------|-------|------------|---------|----------|-------|---------------|-------|-----------------------|-------|-------------------|-------|
| | Interior | Costa | Interior | Coastal | Interior | Costa | Interior | Costa | Interior | Costa | Interior | Costa |
| 2004/05 | - | - | - | - | 11.8 | 10.6 | - | - | - | - | - | - |
| 2005/06 | - | 6.2 | 12.5 | 12.1 | 12.5 | 12.1 | - | - | - | - | - | 6.2 |
| 2006/07 | 6.0 | 5.7 | 12.5 | 12.1 | 12.5 | 12.1 | - | - | - | - | 6.0 | 6.6 |
| 2007/08 | 10.0 | 9.6 | 13.6 | 13.0 | 13.6 | 13.0 | 16.1 | 15.5 | 19.0 | 18.3 | 6.8 | 6.6 |
| 2008/09 | 8.5 | 11.2 | 11.5 | 15.1 | 14.5 | 18.9 | 13.7 | 17.9 | 16.2 | 21.2 | 5.8 | 7.6 |
| 2009/10 | 10.1 | 8.7 | 17.1 | n.a | 17.0 | 14.8 | 16.2 | 14.0 | 19.1 | 16.5 | 5.0 | 4.4 |
| 2010/11 | 10.7 | 10.3 | - | - | - | - | 17.0 | 16.5 | 21.4 | 20.8 | 5.6 | 5.4 |
| 2011/12 | 10.7 | 11.0 | - | - | - | - | 17.1 | 17.6 | 21.6 | 22.2 | 6.3 | 8.2 |
| 2012/13 | 11.9 | 11.2 | 17.9 | - | - | - | 17.4 | 17.5 | 23.4 | 23.6 | 7.0 | 7.0 |
| 2013/14 | 10.9 | 11.4 | - | - | - | - | - | - | 21.4 | 23.3 | 6.4 | 6.8 |
| 2014/15 | - | 11.9 | - | - | - | - | - | - | 19.7 | 23.9 | 5.4 | 6.4 |

Technology Fee in Colombia

In Colombia, cotton is grown in two regions and the technology fee differs slightly from one region to the other, despite the fact that the seed supplier is the same. Even when the price of the seed and the technology fee are equal in both regions, the seed cost/ha will be higher in the Costa region because of the higher seeding rate used there. Moreover, cotton yields are also lower in the state of Cordova, which is responsible for more than 2/3 of production in the Costa region. The higher technology fee has been a bone of contention from the very beginning for farmers and other segments of the cotton industry, particularly farmer associations and federations, but no other option was available given that the national industry was unable to produce planting seed locally. The government has not intervened and, hence, farmers have not been enticed, but forced, to grow biotech varieties, since conventional cotton seeds are no longer available (table 4).

Technology Fee in India

India is the only country where biotech-planting seed was sold along with the non-biotech varieties. The non-biotech seed compelled growers to adhere to existing refuge requirements. In the beginning, refuge requirements were common to all regions throughout the cotton production belt, but were later revised. Farmers were given a choice: they could opt for a sprayed refuge or an unsprayed refuge. As in the USA and many other countries, farmers were required to plant 80% of their total cotton area to insect-resistant biotech varieties and 20% – or five rows, whichever was greater – to non-biotech varieties. Other restrictions also applied. It has been reported that the sprayed option was more popular among farmers. This was due to the heavy damage suffered by crops in unsprayed areas. Singla et al. (2012) examined refuge requirements for biotech cotton in the North, Central and South cotton producing regions of India, focusing on the development of resistance by the American/cotton bollworm, *Helicoverpa armigera*, to the Bt toxins and pyrethroids used on cotton over a long period of time. They based their conclusions on biological factors, yields, and regulatory protocols. They concluded that the refuge requirements considered as optimal varied significantly across cotton-growing regions. The North and Central regions had higher refuge requirements than the South region. The findings suggested that the sprayed refuge was more profitable than the unsprayed refuge. Refuge requirements were found to be sensitive to the relative proportions of pests in natural refuges, as well as to the initial Bt resistance levels in all three regions. A greater population of resistant pests meant that there was more need for a larger refuge

area. The biotech planting seed was sold in small packets of 450-gm, in conjunction with 125-gm packets of non-biotech seed, i.e., enough to plant 0.4 hectares. Seed is expensive because prices may vary as a function of the seed varieties and the diverse seed companies, but the average price for Bollgard and Bollgard II genes is US\$32/ha and US\$36/ha, respectively.

The technology fee in India was originally higher due also to the price of hybrid seed, as the biotech genes could only be sold through hybrids. Thus, the planting seed fee incorporated a factor that was unique to India. Today, biotech hybrids are also sold in China. Biotech cotton in India is often acknowledged as a success story free of any significant controversies thanks to the huge impact it had on cotton yields since 2002/03. It was not only the biotech genes that benefitted India, but also the introduction of modern production practices and programs that led to unexpected increases in yields. Among these factors were:

- At the time of the adoption of biotech cotton, the country's yields were lower than its production potential as measured by the level of technology, the varieties/ hybrids available, types and amounts of inputs used and the research conducted. There was a huge recoverable potential that had yet to be tapped.
- The existing insecticide application technology and systems had many drawbacks. Insecticides were used extensively, but were not sprayed properly. The insecticide resistance issue was at its peak and insect-resistant biotech cotton provided a convenient solution to both problems.
- The technology missions of the Government of India came at just the right time. The Central Government, along with the state governments, focused on getting technology transfers into the hands of the farmers, which was the crux of the problem.
- Cotton growers were anxious to explore any option that might help them to raise yields, so they welcomed biotech cotton. The right decisions were made at various levels at the right time. The private sector seed industry came to the conclusion that the future of cotton was intimately linked to the development of newer biotech genes. India quickly developed its own biotech genes, a factor that also played a major role in getting the technology into the hands of growers throughout the country.

The technology fee in India has its own history, one that is not comparable to the experience of any other country that has adopted biotech cotton. In 2004, the cost of the biotech seed needed to plant a hectare of cotton was about US\$47 greater than

the cost of its isogenic line without the biotech gene. In 2006, the official price for a 450-gram packet of biotech seed, the amount needed to plant an acre of cotton, was around US\$36 (Rs. 1,600), i.e., about four times the price of a non-biotech seed. It is estimated that out of the seed price of US\$36 charged by companies, US\$28 (Rs. 1,250) was defined as the trait value, and US\$8 (Rs. 350) as the cost of conventional hybrid planting seed. A surprising turn of events took place in 2006 when the state of Andhra Pradesh imposed a ceiling of US\$17 (Rs. 750) on the price of a 450-gram bag of biotech planting seed (Singla et al., 2012). The objective was to ensure that the technology would be affordable and accessible to small and marginal growers in the state. Later, other states in India also imposed the same ceiling.

This reduction of more than 50% in the price of a bag of planting seed might have been detrimental to the further spread of the technology in India because of the slimmer income margin accruing to seed companies. However, in practice, seed companies have assimilated the tighter net income margin on the seed and continued to disseminate the technology without any negative impacts from the reduction in the price charged for the seed. At least four factors contributed to the continued focus on furthering the adoption of the biotech

cotton. Firstly, the technology adoption rate over the first four years was exceptionally high and the momentum that had already been built up would have required a much bigger obstacle to slow it down. Secondly, the Genetic Engineering Approval Committee changed the approval process to an “event-based approval”, rather than a case-by-case approval for each and every variety having the same biotech gene. Event-based approval did not require extensive bio-safety and agronomic testing for each new variety. Thus, event-based approval resulted in a great influx of biotech hybrids, thereby increasing competition in the planting seed industry. Thirdly, just prior to the 2006 planting season, the Genetic Engineering Approval Committee approved Bollgard II for commercial release in the Central and Northern regions. Fourthly, also in 2006, two local seed companies released their own insect-resistant biotech cotton events. All these factors together practically guaranteed that the rate of technology adoption would not suffer a setback, not even with a 50% reduction in the price charged for the technology in the seed.

(To be continued)

*Source : The ICAC Recorder,
Vol. XXXIII No.3, September 2015*

Update on Cotton Acreage (As on 10th February 2016)

(Area in lakh ha)

| Sl. No | States | Normal of Year | Normal Area as on Date (2010-2014) | Area sown (during the corresponding week in) | | | | | |
|--------|-------------------------|----------------|------------------------------------|--|----------------|----------------|----------------|----------------|----------------|
| | | | | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1. | Andhra Pradesh | | 21.076 | 23.570 | 25.340 | 21.420 | 22.690 | 18.540 | 17.390 |
| | Andhra Pradesh (23.95%) | 4.800 | 5.476 | 6.630 | 8.210 | 5.130 | 5.434 | 4.440 | 4.165 |
| | Telangana (76.05%) | 15.240 | 15.600 | 16.940 | 17.130 | 16.290 | 17.256 | 14.100 | 13.225 |
| 2. | Gujarat | 26.140 | 27.018 | 27.612 | 27.730 | 26.910 | 24.720 | 29.620 | 26.110 |
| 3. | Haryana | 5.580 | 5.716 | 5.760 | 6.480 | 5.570 | 6.030 | 6.050 | 4.450 |
| 4. | Karnataka | 5.400 | 5.932 | 6.120 | 8.750 | 5.940 | 4.530 | 5.490 | 4.950 |
| 5. | Madhya Pradesh | 6.200 | 6.244 | 5.470 | 5.470 | 6.210 | 6.080 | 7.060 | 6.400 |
| 6. | Maharashtra | 39.800 | 40.614 | 38.270 | 41.900 | 38.720 | 41.460 | 41.260 | 39.730 |
| 7. | Orissa | 0.900 | 1.112 | 1.250 | 1.270 | 1.340 | 1.190 | 1.020 | 0.740 |
| 8. | Punjab | 5.100 | 5.062 | 4.500 | 4.200 | 5.050 | 5.160 | 5.600 | 5.300 |
| 9. | Rajasthan | 4.200 | 4.120 | 4.470 | 4.870 | 3.030 | 4.500 | 5.300 | 2.900 |
| 10. | Tamil Nadu | 1.300 | 1.277 | 1.290 | 1.870 | 1.300 | 1.115 | 1.210 | 0.895 |
| 11. | Uttar Pradesh | 0.000 | 0.214 | 0.210 | 0.000 | 0.230 | 0.300 | 0.310 | 0.230 |
| 12. | Others | 0.360 | 0.112 | 0.290 | 0.310 | 0.100 | 0.000 | 0.150 | 0.000 |
| | Total | 115.020 | 118.497 | 118.812 | 128.190 | 115.820 | 117.775 | 121.610 | 109.095 |

Source: Directorate of Cotton Development, Nagpur

Production & Stock of Spun Yarn (SSI & Non-SSI)

(In Mn. Kgs.)

| MONTH / YEAR | PRODUCTION | | | | STOCK | | | |
|-----------------------|------------|---------|-----------|----------|--------|---------|-----------|----------|
| | COTTON | BLENDED | 100% N.C. | G. TOTAL | COTTON | BLENDED | 100% N.C. | G. TOTAL |
| 2007-08 | 2948.36 | 677.11 | 377.75 | 4003.22 | 104.81 | 43.57 | 20.59 | 168.97 |
| 2008-09 | 2896.15 | 654.89 | 360.95 | 3911.99 | 89.04 | 33.54 | 15.03 | 137.61 |
| 2009-10 | 3078.97 | 707.31 | 407.15 | 4193.43 | 85.56 | 25.68 | 11.41 | 122.65 |
| 2010-11 | 3489.77 | 796.47 | 426.38 | 4712.62 | 186.43 | 48.79 | 18.00 | 253.22 |
| 2011-12 | 3126.34 | 789.29 | 457.08 | 4372.72 | 110.87 | 42.20 | 20.44 | 173.51 |
| 2012-13 | 3582.68 | 828.19 | 456.75 | 4867.61 | 107.92 | 40.37 | 21.38 | 169.67 |
| 2013-14 | 3928.26 | 896.19 | 484.99 | 5309.45 | 133.80 | 51.33 | 23.40 | 208.53 |
| 2014-15 (P) | 4054.51 | 920.20 | 512.92 | 5487.64 | 140.60 | 48.30 | 22.48 | 211.38 |
| 2015-16 (Apr-Dec) (P) | 3100.20 | 719.42 | 414.32 | 4233.95 | 161.18 | 58.46 | 24.90 | 244.54 |
| 2013-14 (P) | | | | | | | | |
| April-13 | 316.61 | 65.91 | 39.68 | 422.20 | 121.99 | 41.07 | 21.94 | 185.00 |
| May-13 | 314.97 | 71.46 | 38.94 | 425.37 | 123.79 | 39.59 | 19.08 | 182.46 |
| June-13 | 317.69 | 71.18 | 38.95 | 427.82 | 117.62 | 36.75 | 17.84 | 172.21 |
| July-13 | 332.12 | 74.84 | 41.31 | 448.27 | 116.52 | 38.01 | 20.68 | 175.22 |
| Aug.13 | 336.29 | 78.66 | 42.21 | 457.17 | 120.07 | 37.18 | 18.27 | 175.52 |
| Sept.13 | 326.09 | 79.42 | 43.47 | 448.98 | 132.87 | 43.34 | 22.51 | 198.72 |
| Oct.13 | 328.80 | 78.03 | 43.05 | 449.88 | 132.74 | 49.76 | 25.43 | 207.93 |
| Nov.13 | 312.13 | 72.21 | 39.01 | 423.35 | 136.35 | 51.53 | 26.52 | 214.40 |
| Dec.13 | 341.67 | 80.55 | 40.41 | 462.63 | 132.43 | 53.00 | 24.27 | 209.69 |
| Jan.-14 | 340.38 | 77.71 | 39.33 | 457.41 | 117.38 | 51.11 | 23.60 | 192.09 |
| Feb.-14 | 321.31 | 71.27 | 37.21 | 429.80 | 128.59 | 54.60 | 25.79 | 208.99 |
| Mar.-14 | 340.20 | 74.95 | 41.42 | 456.57 | 133.80 | 51.33 | 23.40 | 208.53 |
| 2014-15 (P) | | | | | | | | |
| April-14 | 328.68 | 73.84 | 41.41 | 443.93 | 142.80 | 50.06 | 21.20 | 214.06 |
| May-14 | 332.92 | 74.77 | 42.71 | 450.40 | 139.60 | 46.20 | 20.80 | 206.61 |
| June-14 | 330.69 | 74.03 | 42.95 | 447.67 | 151.05 | 47.99 | 22.56 | 221.60 |
| July-14 | 340.00 | 78.51 | 44.85 | 463.36 | 160.20 | 51.30 | 24.18 | 235.67 |
| Aug.-14 | 338.09 | 76.66 | 44.23 | 458.98 | 166.64 | 53.21 | 24.87 | 244.72 |
| Sept-14 | 334.03 | 77.91 | 42.55 | 454.49 | 167.53 | 51.73 | 24.02 | 243.28 |
| Oct.14 | 323.53 | 74.51 | 40.96 | 439.00 | 178.62 | 56.85 | 25.89 | 261.36 |
| Nov.14 | 335.66 | 71.42 | 41.50 | 448.58 | 171.13 | 55.01 | 25.21 | 251.36 |
| Dec.14 | 353.96 | 76.54 | 42.01 | 472.51 | 160.58 | 56.06 | 26.47 | 243.11 |
| Jan.-15 | 349.83 | 80.16 | 43.25 | 473.23 | 161.61 | 55.80 | 24.17 | 241.57 |
| Feb.-15 | 330.35 | 81.26 | 41.88 | 453.49 | 149.92 | 50.83 | 22.47 | 223.22 |
| Mar.-15 | 356.79 | 80.59 | 44.62 | 481.99 | 140.60 | 48.30 | 22.48 | 211.38 |
| 2015-16 (P) | | | | | | | | |
| April-15 | 351.32 | 77.11 | 44.07 | 472.51 | 140.82 | 50.55 | 21.07 | 212.43 |
| May-15 | 348.14 | 80.02 | 44.74 | 472.90 | 153.07 | 52.34 | 23.79 | 229.21 |
| Jun-15 | 346.72 | 79.68 | 45.27 | 471.66 | 158.57 | 55.72 | 23.93 | 238.22 |
| Jul-15 | 356.36 | 82.15 | 47.48 | 485.98 | 160.33 | 61.25 | 26.62 | 248.20 |
| Aug-15 | 355.01 | 82.41 | 49.94 | 487.36 | 166.70 | 63.51 | 27.83 | 258.04 |
| Sept.-15 | 337.96 | 78.49 | 45.35 | 461.80 | 164.60 | 61.29 | 26.00 | 251.88 |
| Oct.-15 | 339.73 | 82.27 | 46.43 | 468.43 | 167.38 | 92.72 | 25.52 | 255.62 |
| Nov.-15 | 320.19 | 77.34 | 43.23 | 440.77 | 172.88 | 61.84 | 24.56 | 259.27 |
| Dec.-15 | 344.77 | 79.95 | 47.82 | 472.54 | 161.18 | 58.46 | 24.90 | 244.54 |

P - Provisional

Source : Office of the Textile Commissioner



**COTTON
ASSOCIATION
OF INDIA**

Established 1921



COTTON INDIA 2015-16

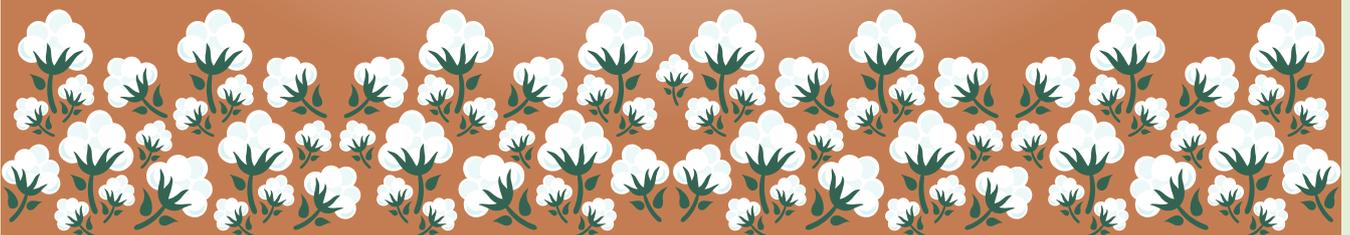
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| UPCOUNTRY SPOT RATES | | | | | | | (Rs./Qtl) | | | | | |
|--|-------------|----------------|-------|------------|------------|---------------|---|------------------|------------------|------------------|------------------|------------------|
| Standard Descriptions with Basic Grade & Staple in Millimetres based on Upper Half Mean Length [By law 66 (A) (a) (4)] | | | | | | | Spot Rate (Upcountry) 2015-16 Crop FEBRUARY 2016 | | | | | |
| Sr. No. | Growth | Grade Standard | Grade | Staple | Micronaire | Strength /GPT | 8th | 9th | 10th | 11th | 12th | 13th |
| 1 | P/H/R | ICS-101 | Fine | Below 22mm | 5.0-7.0 | 15 | 8295 (29500) | 8295 (29500) | 8211 (29200) | 8211 (29200) | 8211 (29200) | 8239 (29300) |
| 2 | P/H/R | ICS-201 | Fine | Below 22mm | 5.0-7.0 | 15 | 8436 (30000) | 8436 (30000) | 8352 (29700) | 8352 (29700) | 8352 (29700) | 8380 (29800) |
| 3 | GUJ | ICS-102 | Fine | 22mm | 4.0-6.0 | 20 | 6074 (21600) | 6074 (21600) | 6046 (21500) | 6046 (21500) | 6046 (21500) | 6046 (21500) |
| 4 | KAR | ICS-103 | Fine | 23mm | 4.0-5.5 | 21 | 7114 (25300) | 7114 (25300) | 7114 (25300) | 7114 (25300) | 7114 (25300) | 7114 (25300) |
| 5 | M/M | ICS-104 | Fine | 24mm | 4.0-5.0 | 23 | 8408 (29900) | 8408 (29900) | 8408 (29900) | 8408 (29900) | 8408 (29900) | 8408 (29900) |
| 6 | P/H/R | ICS-202 | Fine | 26mm | 3.5-4.9 | 26 | 9083 (32300) | 8998 (32000) | 8970 (31900) | 8970 (31900) | 8998 (32000) | 9026 (32100) |
| 7 | M/M/A | ICS-105 | Fine | 26mm | 3.0-3.4 | 25 | 8492 (30200) | 8492 (30200) | 8492 (30200) | 8492 (30200) | 8548 (30400) | 8548 (30400) |
| 8 | M/M/A | ICS-105 | Fine | 26mm | 3.5-4.9 | 25 | 8689 (30900) | 8661 (30800) | 8661 (30800) | 8661 (30800) | 8689 (30900) | 8689 (30900) |
| 9 | P/H/R | ICS-105 | Fine | 27mm | 3.5-4.9 | 26 | 9364 (33300) | 9280 (33000) | 9251 (32900) | 9251 (32900) | 9280 (33000) | 9308 (33100) |
| 10 | M/M/A | ICS-105 | Fine | 27mm | 3.0-3.4 | 26 | 8717 (31000) | 8717 (31000) | 8717 (31000) | 8717 (31000) | 8773 (31200) | 8773 (31200) |
| 11 | M/M/A | ICS-105 | Fine | 27mm | 3.5-4.9 | 26 | 8942 (31800) | 8886 (31600) | 8886 (31600) | 8886 (31600) | 8914 (31700) | 8914 (31700) |
| 12 | P/H/R | ICS-105 | Fine | 28mm | 3.5-4.9 | 27 | 9476 (33700) | 9420 (33500) | 9364 (33300) | 9364 (33300) | 9392 (33400) | 9420 (33500) |
| 13 | M/M/A | ICS-105 | Fine | 28mm | 3.5-4.9 | 27 | 9139 (32500) | 9083 (32300) | 9083 (32300) | 9083 (32300) | 9083 (32300) | 9083 (32300) |
| 14 | GUJ | ICS-105 | Fine | 28mm | 3.5-4.9 | 27 | 9280 (33000) | 9195 (32700) | 9111 (32400) | 9111 (32400) | 9111 (32400) | 9111 (32400) |
| 15 | M/M/A/K | ICS-105 | Fine | 29mm | 3.5-4.9 | 28 | 9308 (33100) | 9280 (33000) | 9223 (32800) | 9223 (32800) | 9251 (32900) | 9251 (32900) |
| 16 | GUJ | ICS-105 | Fine | 29mm | 3.5-4.9 | 28 | 9392 (33400) | 9364 (33300) | 9308 (33100) | 9308 (33100) | 9336 (33200) | 9336 (33200) |
| 17 | M/M/A/K | ICS-105 | Fine | 30mm | 3.5-4.9 | 29 | 9448 (33600) | 9448 (33600) | 9448 (33600) | 9448 (33600) | 9476 (33700) | 9476 (33700) |
| 18 | M/M/A/K/T/O | ICS-105 | Fine | 31mm | 3.5-4.9 | 30 | 9701 (34500) | 9701 (34500) | 9701 (34500) | 9701 (34500) | 9701 (34500) | 9701 (34500) |
| 19 | A/K/T/O | ICS-106 | Fine | 32mm | 3.5-4.9 | 31 | 10292 (36600) | 10292 (36600) | 10292 (36600) | 10292 (36600) | 10292 (36600) | 10292 (36600) |
| 20 | M(P)/K/T | ICS-107 | Fine | 34mm | 3.0-3.8 | 33 | 13835 (49200) | 13835 (49200) | 13835 (49200) | 13835 (49200) | 13835 (49200) | 13835 (49200) |

(Note: Figures in bracket indicate prices in Rs./Candy)