

# 78th Plenary Meeting of the ICAC

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Brisbane, Australia

# TURKEY COUNTRY REPORT



## *Foreword*

Mr. Chairman, Distinguished Members, Ladies and Gentlemen,

It is my distinct honor and privilege to address you at the 78th Plenary Meeting of the International Cotton Advisory Committee on behalf of the Turkish delegation.

I am convinced that this plenary meeting will provide a special opportunity for us to experience the culture and cotton economy of the Australia.

As a start, I would like to briefly touch upon the recent developments in the Turkish cotton market.

During the last decade, significant increases in cotton planted area have occurred in South-Eastern Anatolia, the “South Eastern Anatolian Project (GAP)” region, which accounts for %70 of Turkey’s current cotton production. Area increases, certified seed use, irrigation expansion and investments by the Turkish government to the GAP Project have led to both production and yield increases in 2018/19. The average yield in Turkey rose 7% to 1883 kg/ha. Being the highest since 2014/15 season. On the other hand, production has increased to 977 thousand tons. In 2018/19, the total cotton yield per harvested hectare amounted to 1,883 kilograms (kgs/ha), making Turkey second in the world after Israel.

In the 2018/19 season, Turkey ranked 6th in global cotton production, and 6th in global cotton consumption. In 2019/20, cotton production in Turkey is expected to decrease by %3 (compared to the last season) and to realize at 950 thousand tons.

The main problem faced in the 2018/19 season is heavy rainfalls during the early season that postponed the planting process and resulted in humid soil. The humid solid increased the severity of disease factors. Last season's problems remain this season, as well. Spots depending on early period pests followed by Fumagine occurrences. Apart from early period pests, green worm (*Heliothis armigera*) problem also occurred in terms of humidity and temperature levels. Especially in the Aegean region, large damages determined due to green worm.

Clothing and textiles is among the largest and best-performing sectors of the Turkish economy, accounting for around 6% of the country's GDP. There are some 60 thousand textile and clothing companies operating in the country and they employ around 2 million people which corresponds to 16% share in total employment. The Turkish clothing and textiles industry exported some 65% of its production, accounting for nearly 18% of Turkey's total exports in 2018. In 2018, the Turkish textile and clothing sector covered approximately one sixth (29,4 billion US dollar) of total export earnings (168 billion USD) of Turkey.

The strong Turkish textile industry is partially dependent on imported cotton. Domestic output does not fully meet demand, which makes Turkey the world's sixth-largest cotton importer after China, Bangladesh, Vietnam, Indonesia and Pakistan. Turkey imported 761 thousand tons in the 2018/19 season at a 13% decrease from the previous season. Since textile mill use continues to grow in Turkey, we forecast that consumption will increase by %21 (compared to the last season) and will reach a level of 1,7 million tons in the 2019/20 season.

Due to intense challenges in international markets, many Turkish textile and clothing producers have moved on to new designs and fashion styles targeting high-end customers, especially from European countries. This has led to increased demand for high quality cotton from local textile/clothing manufacturers to support the industry's climb up the quality ladder.

Currently, almost all of the cotton grown in Turkey is *Gossypium hirsutum*, “upland” type, whose lint characteristics proved to be suitable to most applications. 100% of the cotton is produced from (Genetically-modified) GMO-Free seeds in Turkey. In recent years, Turkey started to export GMO-Free cotton seeds to various countries, including Azerbaijan, Greece, Spain, Kazakhstan, Iran, Tajikistan, and Ethiopia. Turkey exported around 3 thousand (2,998) tons of Cotton Seeds, worth 7,9 million US Dollars in 2018.

The Turkish National Cotton Council developed some quality standards for GMO-Free Turkish cotton and has made this standard ready to use. The Council updated the use of "GMO-Free" seals/labels in 2018 to work closely to strengthen cotton, which is so vital to the welfare of millions of people all over the world.

To conclude, I wish a successful meeting and would like to express my profound gratitude to the Government of Australia and the Organizing Committee for the excellent arrangements made for the 78th Plenary Meeting.

Thank you.

**Musa DEMIR (Mr.)  
Deputy Director General  
Ministry of Trade**

**78th Plenary Meeting of ICAC  
(Brisbane, Australia, 02 December 2019)**

# COUNTRY REPORT OF TURKEY

## *Introductory remarks:*

According to the Turkish Statistics Institute, the number of people actively engaged in agriculture, presently varies between 23-26 % of the total labour force. Approximately, 4 million farm units operate in the agricultural sector with an average farm size of around 4 ha. However, the share of agriculture in Turkish GDP has progressively decreased due to significant increases in industrial production, construction and services sectors, leaving agriculture with a share of just 8 % . The most important agricultural commodities are cereals, oil seeds, table olives, olive oil, cotton, tobacco, various types of dried fruit, hazelnuts, as well as various types of vegetables. Cotton, which is one of the basic agricultural income sources for many farmers in Turkey, has also gained increased importance, especially following the significant expansion of country's textiles and clothing industries.

Cotton's contribution to food and fiber industries is still significant. Cotton seed oil is mainly used to cover part of the domestic deficiency for vegetable oils, for which there is constantly a growing demand, which can only be satisfied by imports at increased amounts. These imports are mainly as sunflower seed oil, soya oil and partly palm oil, for which Turkey has a significant demand.

With a lint cotton production of about 900 thousand tons, until a few years ago, Turkey used to be ranked as the sixth largest cotton producing country in the world, after China, India, the USA, Pakistan and Uzbekistan. However, Australia and, particularly Brazil, have significantly surpassed Turkey in cotton production, pushing the country to the 8th position in 2016/2017 season. However, in 2017/18 season Turkey again ranked as the sixth largest cotton producing country surpassing Uzbekistan and Australia. Although, researches have not been finished yet in 2018/19 season, it is expected that Turkey will rank 6<sup>th</sup> position in 2018/19 season after India, China, United States, Brazil and Pakistan.

With the gradual development of the textile and clothing sectors during the last three decades, cotton has become important to the industrial sector as well as to the internal and external trade of Turkey. Turkey saw approximately 25% increase to nearly 1 million tonnes production in 2018/19 season. Thanks to production increase, the cotton import of Turkey decreased %11 and reached to 793 thousand tonnes. Since, it is expected that the domestic cotton production of Turkey will remain at the same level comparing previous season and cotton demand of Turkey mills will remain at the same level comparing previous season it is estimated that the cotton import of Turkey will be ranked as the 4<sup>th</sup> positions. Currently, the Turkish textile and clothing sector covers just below approximately one fifth of total export earnings (See Table 2).

Global financial crisis, which had erupted in mid-2008, had made itself felt in many sectors, especially in manufacturing, as well as in domestic and export marketing of textiles and clothing sub-sectors, causing consumption of cotton drop significantly. Thanks to the gradual increases in cotton prices, especially witnessed soon after October 2009, together with

increased demand for textile products, which ultimately triggered price increases on cotton. This trend continued even more fiercely as we entered the 2010/11 season, which will be remembered as one in which cotton prices had shot upwards, the Cotlook A Index reaching its apex value of 241 US cent/lb in March 2011.

2018/19 season started with rising prices and ended with falling prices. Turkey cotton prices continues to downward trend similar to Cotlook A Index.

## **1. The Economic Outlook of Turkey**

Annual Growth Rate in Turkey averaged 4.87 percent from 1999 until 2018, reaching an all-time high of 11.70 percent in the first quarter of 2011 and a record low of -14.40 percent in the first quarter of 2009. In 2018, GDP for Turkey was 771.27 billion US dollars and expanded by 2,6 %. In the first quarter of 2019 , GDP growth turned downward and decreased by 2,4 % and in the second quarter , negative growth rate continued and decreased by 1,5 %.

In 2018, export growth of Turkey increased by %7 and reached to 168 billion USD, compared to previous year, while imports decreased by % 5 to the value of 223 billion USD.

## **2 Sustainable developments in cotton production**

### ***2.1 Brief information on the developments of sustainable cotton production techniques***

#### ***i) Sustainable Development of New Cotton Varieties***

Sustainable development of new seed varieties came with the liberalization of seed sector in mid-1980s, many private sector seed development companies also encouraged the cultivation of some additional varieties, which they considered promising. However, no genetically modified (GM) cotton has so far been commercially cultivated in Turkey. Presently, almost all of the cotton grown in Turkey is *Gossypium hirsutum*, “upland” type, whose lint characteristics proved to be suitable to most applications, except those, which necessitated the use of yarns with very fine counts.

During the recent years, exports of cottonseeds to various countries, including Greece, Spain, Azerbaijan, Tajikistan, and more recently to sub-Saharan African countries, such as Ethiopia, Mozambique, etc., have been made. Mozambique also tested trial plantations, from which favorable results have been reported.

A good number of seed development companies have also been successful in exporting cottonseeds of high yielding varieties, with good fibre properties. However, there exists a growing concern towards the use of **uncertified** seeds, which infringe the Intellectual Property Rights Rules on Seed Trade.

## *ii) Sustainable Developments in Cotton Cultivation Techniques:*

Both the cotton research stations of the Ministry of Agriculture and Forestry (MAF), as well as the private sector conduct various research and development work in order to improve sustainability of cotton production techniques, bearing in mind the necessity to cause the least harm to the field and environmental resources. Some of the production techniques, such as ridge planting, cultivation of a secondary crop after cotton, use of less water in cotton cultivation, etc., are just a few examples. Positive results obtained from these field studies are shared with various countries. For example, ridge planting methods, which had been proved to be beneficial to faster plant growth, use of less amount of water, shorter maturity periods, etc., were also applied in Kyrgyzstan and Tajikistan, with the technical support of Turkey (providing suitable seeds, seed planting equipment, technical advice, etc.), where excellent results had been obtained in increasing cotton yields.

## *iii) Sustainable Developments on Crop Productivity and Pesticide Use:*

A study conducted by the SEEP, an Expert Panel on the Social Environmental and Economic Performance of Cotton Production<sup>1</sup>, showed that there is no correspondence between variation in pesticide use over time and cotton yields. Australia achieved a decrease in per-hectare average pesticide use over the studied period, while the average cotton yield per hectare increased. Turkey achieved the third highest cotton yield per hectare in 2018/17 season after Australia and Israel. Despite the lowest average amount of pesticides used per hectare of cotton and still without introducing biotech cotton.

The average yield in Turkey rose 9% to a record high of 1817 kg/ha. Yields have continued to increase in Turkey due to continued development and investment to the irrigated crop in the southern region of the country in 2018/19. Australia's yields and production fell in 2018/19 for the largely irrigated crop as water levels in the country decreased. Yields continued to recover in Israel through an increase of 11% to 1900 kg/ha following a 2% increase the previous season. Yields in China increased 2%, reaching a high of 1794 kg/ ha. The average yield Brazil remained steady at 1672 kg/ha in 2018/19.

## ***2.2 Linkage with a Sustainable Cotton Identity Programme IPUD (BCI Turkey):***

Main stakeholders of the private sector associations, under the overall coordination of the UPK, the National Cotton Council of Turkey, and supported by regional textiles and raw materials exporters associations, the cotton exchanges in Izmir and Adana, Tarış Cotton ASCU, some regional chambers of trade, etc., had come together to support the formation of IPUD (*Iyi Pamuk Uygulamaları Derneği*), the Society of Good Cotton Agricultural Practices, whose office established in Istanbul on 24 September 2013. The potential farmers had already been trained on the BCI during the 2012/13 season; as a result, around **14 thousand tons of BCI cotton** had been produced in that season. The IPUD has also developed ambitious plans

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<sup>1</sup> This panel was formed within ICAC in September 2006 in order to provide objective, science-based information on the negative and positive social, environmental and economic aspects of global cotton production.

for growing BCI cotton in selected areas of Turkey; namely in the Aegean, Mediterranean, and the South East. Support of the Turkish textile industry, which had been manufacturing for large retail chain stores in many parts of the world, was also very strong. It is the intention of the writer of this report to briefly describe below the plans and achievements as the IPUD.

About “the Society of Good Cotton Practices” and the concept of “Better Cotton” in Turkey

BCI, better known as “the Better Cotton Initiative” has enjoyed significant popularity during the recent years. Thanks to the phrase of “sustainable cotton”, its widespread awareness and popularity came to attract those, who paid significant attention to the topic and practice of “sustainability”, a word as effective and equally as popular for the cotton community worldwide. It was just after the ICAC Lubbock meeting in 2010 that the topic of entering into the identity cottons that a formula was developed for some of the Turkish cotton industry players to establish an alliance with the (Better Cotton Initiative) in 2011. The IPUD completed its foundation process in September 2013. In June 2014 IPUD signed a Strategic Partnership Agreement with the BCI .

The objectives related to the establishment of IPUD were as follows:

- To enable the improvement of cotton production in Turkey, for the benefit of those producing it, for the environment in which cotton is grown, and finally for the benefit of Turkey’s better future!
- During the implementation periods to work always with different stakeholders by encouraging sustainable and measurable improvements.
- To enable production of better cotton with sustainable and main commercial commodity, with the aim of converting the whole cotton production practices towards a positive direction.
- To minimize negative environmental effects of cotton production practices.
- To improve the income levels and the economic developments of the cotton production regions,
- To increase the demand for “Better Cotton” through the supply chain and contribute to the development of increased demand, making the demand for better cotton more widespread.
- To increase the demand for the Better Cotton, by which to expand the demand and make it extremely popular among the growers and users.
- “To make Better Cotton Production and its Credibility sustainable.

Turkish textile industry has been supporting IPUD’s activities since its foundation, as a young organisation their support has been crucial in terms of IPUD’s institutional development. IPUD also has been supported by various brands especially in its early stages of operation. Thus, IPUD represent a good example of national, international, public and industry collaboration to start a sustainability effort.

IPUD had been operation in several cotton producing provinces from west to east. Operation regions in 2019 were:



IPUD, which realized the first harvest of Turkish Better Cotton in 2013, having 278 farmers, within a land of 7,237 ha, were able to produce 34,517 tons of seed cotton, which was equivalent to 14,443 tons of fibre. In **2014**, 534 farmers, cultivated 12,712 ha land, were able to harvest 60,445 tons seed cotton, which was roughly equivalent to 23,000 tons of cotton fibre. In **2015**; 441 farmer, in 13,041-hectare land produced 60,680 tons of seed cotton, which is approximately equivalent to 23,058 tons of lint cotton. In **2016**, 345 farmers in total of 15,651-hectare land produced 77,999 tons of seed cotton, which is approximately equivalent to 29,639 tons of lint cotton. In **2017**, 791 farmers in total of 20,376-hectare land produced 106,023 tons of seed cotton, which is approximately equivalent to 41,351 tons of lint cotton. For the **2018** season, 969 farmers licenced in 26,039-hectare land and out of that operation, it is expected to result in 147,989 tons of seed cotton production, which is approximately equivalent to 57,716 tons of lint cotton, the season continues and final data can be reached around January 2019. It is interesting to note that there has been a tremendous success in organizing the member growers to enroll as IPUD growers and mobilize themselves in concentrating with the cultivation of the BCI cotton.

IPUD has been working on making cotton production in Turkey sustainable in environmental, economic, and social terms by locally producing licensed “Better Cotton”. Better Cotton Production numbers are as follows:

	2013	2014	2015	2016	2017	2018	2019*
Area (h)	7,237	12,712	13,041	15,651	20,376	25,976	53,138
Seed Cotton	34,517	60,445	60,680	77,999	106,023	135,732	305,675
Lint Cotton	14,443	22,969	23,058	29,639	41,351	52,935	119,212

\*2019 numbers are not final numbers, final data can be reached around February 2020

### ***2.3 Overview of developments related to cotton production in Turkey***

Cotton production regions of Turkey are shown in **Figure 1**. During the last decade, significant increases in cotton planted area have occurred in the South-Eastern Anatolia, “GAP” region, as opposed to drops in Çukurova and the Aegean regions. Machine picking has increased in both the Aegean, Mediterranean and the “GAP” regions, indicating almost 80-90% usage in medium to large size fields. This was due to costly hand picking, arising mainly from the scarcity of manual pickers. **Table 1** gives the cotton production figures for the last 14 seasons (i.e between 2005/06 and 2018/19 seasons). It can be seen that during the recent seasons, thanks to the yield increases, the overall country level production increases were also achieved.

Diminishing in planted area in all regions and the limited application of machine picking in small sized cotton fields started to indicate a stagnation in the demand for new mechanical pickers. However, cotton price increases since October 2009 had again raised the sales of the mechanical harvesting equipment.

An important aspect worth mentioning is the significantly weakened positions of the Agricultural Sales Cooperatives and their Unions (ASCU), such as Tariş, Çukobirlik and Antbirlik, which can also be regarded as a major factor for the limited interest to cotton growing because these ASCUs used to be very powerful in the past, also in charge of implementing government support policies, mainly in 1970s and 1980s, and partly in 1990s. They even continued giving such support from their own resources at times when market prices or “the premium levels” had fallen short of their members’ expectations. These cooperative unions had long been regarded as “good shelters” for most of the small to medium size growers. However, the restructuring process, through which the agricultural sales cooperatives and their unions had to undergo early in 2000s, could not produce a good outcome. It was their significantly weakened financial positions, which greatly deprived them from giving adequate support, making them eventually lose their comparative advantage towards their grower members.

Another important factor for their weakened position was the reluctance displayed by the management of these cooperatives to take drastic steps while restructuring their cooperatives in such a way as to make them competitive, self-financed and effective organizations. There had been increased expectations that with the lowered world stocks and accelerated world cotton prices since December 2009, farmers would again turn to cotton growing for the 2010/11, 2011/12 and 2012/13 seasons, respectively. These expectations were largely realized as reflected at the production data provided in **Table 1**. These data were also verified by the ginnery output data, which had been kept on regional bases by the regional standardization control authorities of the Ministry of Trade.

#### ***i) Cotton Production for the 2016/17 Season***

Planting took place, as usual during April/May under normal climatic conditions. However, heavy rains towards the end of May damaged the already planted field. This necessitated

replanting. Luckily subsequent weather conditions were excellent, offering sufficient heat for normal crop maturing, with one or two weeks delay for the commencement of harvesting.

Heavy rains, just before harvesting had started inflicted a serious crop damaged the Adana cotton fields, on the other hand some insect damage was observed in Urfa area.

In the 2016/17 season the planted area was 416.010 ha and the cotton production was 756.000 ton

Planted Area	: 416.010 ha
Production (Ton)	: 756.000 tons
Yield	: 1.800 kg/ha

#### *ii) Cotton Production for the 2017/18 Season*

The biggest problem encountered in 2017/18 season was aphid damage (*Aphisgossypii*). Especially, the rate of damage was higher in the anaerobic cotton cultivated areas.

Since the struggle against the pests is significantly increased in this season, the cost of the producers increased.

In the 2017/18 season the planted area realized as 501.853 ha and the cotton production was 882.000 tons.

Planted Area	: 501.853 ha
Production (Ton)	: 882.000 tons
Yield	: 1.760 kg/ha

#### *iii) Cotton Production for the 2018/19 Season*

The main problem faced in the 2018/19 season is heavy rainfalls during the early season that postponed the planting process and resulted in humid soil. The humid solid increased the severity of disease factors. Last season's problems remain this season, as well. Spots depending on early period pests followed by Fumagine occurrences. Apart from early period pests, green worm (*Heliothis armigera*) problem also occurred in terms of humidity and temperature levels. Especially in the Aegean region, large damages determined due to green worm.

In the 2018/19 season, the production realized 977.000 tons in overall Turkey depending on the increased harvested area.

Planted Area	: 518.634 ha
Production (Ton)	: 977.000 tons
Yield	: 1.883 kg/ha

#### *iv) Cotton Production for the 2019/20 Season*

Cotton planting took place, as usual during April/May under normal climatic conditions. Suitable weather conditions continued and it was one of the positive impact on cotton cultivation.

This year there were not significant damages and pest problems. Especially in the Aegean Region, the main problem was the planting density.

In the 2019/20 season, it is projected that the production will be 950.000 tons in overall Turkey.

## **1. Cotton Consumption**

### **3.1 Outlook for Cotton Consumption in Turkey**

Turkish cotton industry is still one of the major sub-sectors, having a large export earning as well as employment potential. The textile industry has partly been dependent on imported cotton, since local cotton production is not sufficient to meet the demand for approximately 1.3-1.5 million tons of lint cotton, hence often making the country the **amongst the top importers of cotton** in the world.

Cotton consumption figures since the 2000/01 season are given in **Table 3**. Between 2000/01 and 2003/04 seasons, Turkey had rapidly recovered from the economic and financial crisis of 2001, when sharp depreciation of the domestic currency had occurred, together with an economic slowdown, which also limited the increase in mill consumption of cotton.

Significant improvement in cotton consumption occurred especially just after October 2015. This “come-back” was with a healthy demand for raw textile materials, such as cotton, cotton yarn, and gray fabrics, woven or knitted products, leaving the chances for further improvement to the year 2016.

Parallel to cotton price increases, which noticeably accelerated in the second half of, demand for cotton also remained dull. However, from September 2011 until January 2012, there had been some higher volatility in cotton prices. Excessively high cotton prices, which had been mainly caused by speculative market behaviours, ultimately forced some spinners and fabric manufacturers to reduce their dependence on cotton, by switching, where possible, to other fabricated fibres, or to cotton/polyester blends.

All these developments lead to the difficulty in foreseeing the future behaviour of the cotton markets, which in turn resulted in a sudden and abrupt fall in cotton demand, hence in prices of cotton and cotton yarn. This unpredictable and mainly speculative market behaviour had created an understandable cause for concern on the part of textile manufacturers in Turkey and in many parts of the world, especially in some large textiles manufacturing countries, where cotton started

to be offered back by many spinning mills, which preferred not to be caught with large cotton inventories at high prices.

During the 2015/16 season, as the above mentioned decreasing demand for cotton prevailed in both cotton producing and consuming countries, so did the behaviour of “*Wait and see!*”, causing significant drops in cotton prices. Adding to these developments were the difficulties experienced in the financial markets, over the deteriorating economic conditions in some of the Euro-zone countries on one side, and the existing concerns over the developments in the US economy, particularly on the US Dollar. Coupled with the political uprisings, in North Africa and the Middle East, all translated into significant drops in per capita income, hence lower demand for cotton, despite the lowering of cotton prices even during the transition of cotton markets from one season to the next.

During the 2016/17 season imports of Turkey, the world’s fourth largest buyer of cotton, increased to 824.610 tons due to the less crop this season.

Contrary in the 2017/18 season, import decline took place due to large crop and similar import decline was expected to take place for 2018/19 season as well due to expected large crop in this season.

In 2018/19 season, the cotton consumption will decrease to 1.400 thousand ton. Production will be increase comparing to previous season and depending on decrease in consumption it is expected that ending stocks will increase in this season.

In 2019/20 season, it is projected that the consumption will be increase by 21% and reached to 1.698 thousand ton.

Finally a “Supply and Use Cotton Table” was constructed in **Table 4** in order to see the overall picture related to the starting and ending stocks, productions, consumptions, cotton productions, and finally trade (exports and imports).

Table 6 gives us the total cotton supply which is sum of the beginning stocks, cotton production and cotton imports, for each respective season.

We can conclude that with the figures given in Table 6 the supply and demand figures are reasonable and that the ending stocks do not pose any difficulties, as well.

### **3.2 Cotton Trade**

Turkey has a fully liberalized cotton trading market since 1990s, with no quantitative restrictions in exports, nor in imports. There is no duty or levy charged to exports or imports of cotton. Cotton is freely traded in the market and prices are determined by domestic and international supply and demand conditions, reflected by the Cotlook A indices, New York

ICE futures contract prices, and other related exchanges, such as the Indian and China Forward or Futures quotations.

### *i) Trade in Seed Cotton*

Main players in seed cotton trading markets are the Agricultural Sales Cooperatives (ASCs) and their Unions (ASCUs), individual cotton producers, traders and cotton ginners, while the main players in the lint cotton market are again the ginners, spinning mills, directly or through their commission agents, and finally, the domestic and foreign trading cotton companies.

Farmers, who sell their seed cotton to ginners, generally do not engage themselves in lint cotton trading. In the past, ASCUs were important market makers (both in seed and in lint cotton markets) with an overall share of generally between 15-20% in total crop volume. As mentioned above, the ASCUs active in cotton have significantly lost their power to control the market, due to their weakened financial strengths.

As part of the restructuring program for the ASCUs, the governments can no longer provide finance for their crop procurements, thus, the ASCUs were expected to build-up their own capital for their crop procurements, as well as maintain their working capital to meet their operating costs.

It is worth to remember that price supports on behalf of the government through the ASCUs have ceased to be practised and seed cotton purchases of these unions had been solely on their own accounts, especially since the 2000/01 season. The amount of cotton the ASCUs can get from their members depends largely on the procurement prices they announce, payment conditions and the prices offered by the ginners, traders, and other intermediaries in relation to market realities.

Of the three ASCUs, Tariş, had overlooked the market realities until a few seasons back, when it had offered to their members prices much higher than the prevalent market prices. This practice had put themselves under big losses as well as under severe shortages of finance for their upcoming seed cotton procurements. Antbirlik, situated in the province of Antalya, and not having a large cotton production base, was able to command a good control of the seed cotton markets in its own region. Lastly, Çukobirlik covers a very large area with scattered cotton production spots, stretching from the Mediterranean Region covering Çukurova, Hatay, and K. Maraş, Urfa, Diyarbakır, etc., cotton growing areas to the south-east (i.e. the “GAP” area). Like Tariş, Çukobirlik also operates with a limited working capital.

Private sector involvement in the seed cotton market is mainly through the ginners or traders. Local intermediaries buy seed cotton and sell to ginners charging them a small commission/fee. Imported lint cotton prices also affect the formation of prices in the domestic seed cotton market.

During the recent seasons, a much simpler way of fixing seed cotton price was established. The lint cotton price, which is daily established at the Izmir Cotton Exchange, is multiplied by the ginning outturn to arrive at the seed cotton price. In this transaction, it is assumed that the value of the cottonseeds, coming out of the ginnery is roughly equivalent to the cost of ginning. **Table 4** gives the cottonseeds’ procurement prices by the ASCUs from 1997/98 season until the

2019/20 season. Please note that the methodology of calculating the seed cotton price changed by adopting the simpler way of calculation as mentioned above.

## *ii) Trade in Lint Cotton*

In Turkey, the domestic lint cotton market can be described as a competitive market with no restriction on foreign trade and with no government intervention. Thus, the market forces determine prices. Domestic lint cotton market is integrated with international markets so that prices are open to the global price signals.

The Izmir Cotton Exchange operating under the Izmir Mercantile Exchange, IME, has a well-deserved history as the most significant institution in Turkey in the price discovery and trading of cotton. Prices are daily established after a 10 minutes trading session held in the trading pit, by an outcry method, from where the prices so established are disseminated rapidly. Cotton trading can also take place elsewhere in the country, where the closing session prices from Izmir also guide the basis of most of these transactions.

Cotton price behavior during the 2015/16 season; The Cotlook A Index between August 2015 and July 2016 was fluctuating between 65-83 cents per lb. Especially after March the prices started to increase sharply and reached to the level of 83 cents per lb at the end of the season. During the same period, prices at the Izmir Bourse moved in a narrower band according to Cootlook A and completed the season approximately at the level of 80 cent per lb.

In 2016/17, the Cotlook A Index increased by 12 cts/lb from 2015/16, averaging 82,77 cents per pound for the season. Given the increase in world production and prices in 2016/17, the value of world cotton production rose to \$45 billion.

In 2017/18 season, the averaged Cotlook A Index increased by 5,10 cents/lb compared with previous season, averaging 87,87 cent/ libre. During the same period the Turkish lira has declined and depreciated by over 35 percent since the beginning of the year. Turkish cotton price is lower than the counterparts by about 20 cents/lb (compared price:the price of cotton that delivered to Turkey).

In 2018/19 season, the Cotlook A index decreased %25 in a year as shown Figure 2 (From August 2018 to August 2019) On the other hand, while comparing Cotlook A index and grade 41 Izmir domestic cotton; in the first six months the Turkey domestic cotton price increased by % 9 and then decline trend took place and reached the same level in a year.

## **4 Sustainable development of the textiles and clothing sub-sectors in Turkey**

### **4.1 Brief Historical Developments of Turkey's Textile and Clothing Industry:**

Historical developments of Turkey's cotton based textile industry begin with the foundation of the Republic in 1923, although cotton cultivation in Anatolia dates back to the first century to the

Romans, followed by the Byzantines and lastly by the Ottomans, from whom Turkey also inherited the tradition of manufacturing of textiles and clothing products. Initial developments were realised during the early years of the Republic at the hands of the public sector with the establishment of Sumerbank, a very large state economic enterprise, involved mainly in textiles and clothing, as well as in banking was established in 1930s and actively operated until 1987, when it was privatised. From 1950 onwards, it was felt that for the sustainable development of the Turkish textile sector, major private sector investments were also needed, which started to take place immediately after 1950s, and gained weight in 1970s, in parallel with the rapid increase in cotton production.

With the investment incentives granted to the textile sector during the same period, modern spinning plants had been put into operation in 1970s and 1980s, at a time when the textile industries of Europe, mainly Italy, Germany, Belgium, France and England, had their production facilities also operating at high capacities, and being largely dependent on imported yarn, which could be obtained from a nearest source, such as Turkey. However, Turkey was soon to face quantitative restrictions to its cotton yarn exports in 1974<sup>2</sup>. Such restrictions were formally imposed in mid 1980s, initially onto cotton yarn<sup>3</sup>, which would later be extended to other textile products, such as woven or knitted fabrics, etc. Finally, clothing exports had also become subject to quantitative restrictions towards mid-1980s.

Turkey's Customs Union with the European Union, which went into effect on 1st January 1996, eliminated all the quantitative restrictions in the textile and clothing trade between Turkey and the EU. It was in the second half of 1995 and in the following 3 years, which triggered off the investments in textile and clothing machinery in Turkey to get benefit from the removed quotas.

The WTO Agreement on Textiles which went into effect in 1995, was to eliminate quotas progressively, with a total elimination in January 1, 2005. As part of the Agreement on Textiles and Clothing (ATC), and all restrictions were terminated on January 1, 2005. The expiry of the ten-year transition period of ATC implementation meant that trade in textile and clothing products was no longer subject to quotas under a special regime outside normal WTO/GATT rules, but was now governed by the general rules and disciplines embodied in the multilateral trading system.

Contrary to the earlier predictions of many experts, Turkish manufacturer-exporters of textiles and clothing products have proven their continued ability to *sustainably* maintain and even expand their presence in most foreign markets, in increased volumes and values, even after entering the quota-free era, mainly to the EU markets, which still constituted Turkey's number one trading partner, not only in textiles and clothing but also in most other sectors.

For the achievement of sustainable development of the Turkish textiles and clothing sub-sectors, principal foundations had long been laid down to face the quota-free era by private sector initiatives, backed by the strong entrepreneurship, dynamic economic growth, utmost respect to

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<sup>2</sup> Complaint was first received from Britain

<sup>3</sup> In the form of voluntary restrictions with a given annual quota

innovation, support by the existing and new talents in design and creativity, close follow-up of market trends, active presence in the existing and new markets, participation in prestigious international fairs, etc., organising buying missions, collaboration with the educational and training, as well as with the R & D institutions. The role of the exporters' associations in Turkey in acting as catalysing bodies should not be underestimated in the overall success of the textiles and clothing sub-sectors.

## 4.2 Sustainable Development of Turkey's Textile and Clothing Potential

Before the start of the “quota free era” Turkish entrepreneurs had been preparing themselves for the new rules of the game, which was “*to become and remain competitive in a highly competitive world*”.

Turkey is one of the very few countries in which its textile and clothing industry has managed to remain competitive, even after the end of textile quotas, and under the fierce competition coming from low-cost countries, such as China, India, Bangladesh, etc. This is mainly because new investments in spinning, weaving and knitting have continued, especially in new provinces, such as Adana, Gaziantep, K. Maraş, Kayseri, Niğde, and Malatya in southern and central Anatolia, where there had been a shifting of spinning, weaving and knitting activities. At the same time, Denizli emerged as the new basin for the manufacture of bathrobes, towels, bed linen, etc., leaving Bursa and Çorlu as manufacturing centres for woven or knitted fabrics, and their articles. It is evident that Istanbul has become the leading production base for the high quality ready-made garments, followed by Izmir and Bursa. Istanbul (and to a lesser extend Izmir and Bursa) have also become the regional centres for fashion development as well as manufacturing bases for leading international brands.

Mention should also be made to Turkey's continuous investments in new textiles and clothing machinery, which basically aims at ensuring *sustainability* in country's success in various sectors, among which textiles and clothing, food, chemicals, petro-chemicals, electronics, machinery, etc., industries play important roles.

Finally, the government had introduced a new investment incentives scheme, which was specifically designed to encourage investments with the potential to reduce dependency on the importation of intermediate goods vital to the country's strategic sectors. Reducing the current account deficit; boosting investment support to lesser developed regions; increasing the level of support instruments; promoting clustering activities, and supporting investments that will create the transfer of technology, are all among the primary objectives of the new investment incentives scheme, which went into effect as of January 1, 2012. Lastly, local and foreign investors have equal access to all the investment schemes (i.e general, regional, large-scale and strategic investments incentives schemes). It is believed that this initiative will play a critical role in ensuring *sustainability* in various sectors, besides the cotton, textiles and clothing sub-sectors.

In 2018, Turkish textile and apparel industries provide:

- 6 % of Turkey GDP

- 15 % of overall manufacturing
- 27 % of overall manufacturing labour force
- 17 % of Turkish total export earnings

Turkish textile and apparel industries are the leading industries in manufacturing and employment in Turkey. Below, Turkey's position in the global market for both textile and apparel industries are summarised with figures;

#### **Textile Exports (10.5 billion \$ in 2018)**

- World's 6th biggest supplier
- EU's 2nd biggest supplier after China
- Leading producer and exporter in knitted and denim fabrics
- Well-known producer of high-quality organic cotton

#### **Apparel Exports (17.4 billion \$ in 2018)**

- World's 6th biggest supplier
- EU's 3rd biggest supplier after China and Bangladesh
- World's 3rd biggest hosiery supplier after China and Italy
- World's 3rd biggest woven products supplier after China and Bangladesh
- *Leader* in denim and knitted products

### **4.3 Major issues facing the cotton, textiles and apparel industries of Turkey**

#### *i) Major issues facing the Turkish Cotton Industry*

The most important issue facing Turkey's cotton industry today is the unfair competition created by the government measures implemented by various cotton producing countries, which generally result in depressed world market prices. This is a common issue, facing most of the cotton producing developing countries. Unfortunately, the gradually diminishing hopes for achieving a successful conclusion in the Doha Round in the very near future also diminish the expectations of many cotton producing developing countries for a significant improvement in the cotton markets worldwide.

The other main issues, faced by the cotton growers in Turkey listed below:

- high input costs, (labour, fuel, chemicals, fertilisers etc.,)
- high cost of hand picking (use of harvesting equipment has been expanding at a rapid pace, now reaching at almost 80% levels in relatively large cotton fields)
- high cost of finance,
- Better returns expected from alternative crops, especially from food crops, making market prices of cotton most often lower than the cost of production.
- And adding to that would be;
- the likelihood of entering another period of world-wide recession and financial crisis, with its inevitable repercussions to the world cotton economy.

## **5. Future prospects of the cotton industry of Turkey**

### **5.1 Cotton production prospects**

It is expected that the area increases witnessed in the recent years in the Southeastern Anatolia, because of relatively attractive cotton prices, may not be often seen in the near future. High production costs, unattractive prices and better returns from alternative crops may generally discourage the cotton growers from growing cotton even in that region. The Southeast region has the chance of remaining the largest cotton-growing region in Turkey.

In the Çukurova region, there will not be significant increases in area since farmers in this region have already switched to alternative crops, mainly to maize, soybeans or cereals. Cotton planted area in Antalya region is also experiencing a gradual decrease.

The Aegean region, where the best quality “upland” cotton is being grown, and where the planted area did not indicate a large drop until a few years ago, has also been experiencing significant diversion to other crops, mainly to maize, simply because of higher cost of cotton production.

Machine picking, in all regions, has become unavoidable owing to high cost and severe shortages of labor in hand picking. This development also contributed to the significant reduction in contamination. The ginning industry, which is largely composed of roller-ginning plants, has also adopted itself in dealing with machine-picked cotton by incorporating pre and post ginning cleaners as well as using higher capacity roller ginning equipment.

### **5.2 Cotton consumption prospects:**

In a quota-free world, it was anticipated that relatively low priced imported textile products would reduce the demand for domestic yarn, raw and finished fabric to some extent, limiting possible increases in mill consumption. The degree at which the domestic textile industry is likely to be affected from such imports will be largely dictated by the quality and price levels of the imported products compared to the domestic products. Under such circumstances, where imported yarn, raw or finished fabric appears more competitive, importing those products under the Inward Processing Regime and using them in the manufacturing of more value added products, might be the most advantageous and cost effective strategy. In this case, it will not be difficult to foresee a drop in cotton consumption, which will affect not only the domestic cotton production but also the consumption of imported cotton.

Domestic consumption in 2018/19 declined to 1.400 thousand ton due to the ongoing local economic downturn, but expected to recover in 2019/20.

Starting from mid-summer 2018, the Turkish economy has been going through a downturn, including a major depreciation of the Turkish Lira (TL), where within four weeks its value dropped about forty-four percent against the leading global currencies. But then the TL gained some of its value back and the expectation of recovery continues to increase.

### **5.3 Cotton export/import prospects**

Turkey was a net cotton exporting country until 1992. From 1993 onwards Turkey has become a net cotton importing country, with steady increases in cotton imports being realised during the last decade. In the last seasons, this situation made Turkey one of the largest cotton importing country in the world. Thus, Turkey's export potential for cotton in the future will remain insignificant.

## **2. Conclusions**

Cotton price volatilities experienced during the recent seasons, have made a great impact on the world cotton economy, disrupting the smooth functioning of trade, which the world cotton markets had been enjoying for decades even centuries and seriously, threatened its world-wide sustainability.

In the meantime, Turkey continues to be the 4th largest cotton importing country in the world for the last 5 seasons. Cotton price decreases during the last year would make a negative impact to catch the interest of many farmers to return to cotton cultivation in many areas. However, Turkey's well established textile and clothing industries will be capable of facing the new challenges.

Domestic textiles and products sales had increased significantly in recent years and it will have a positive impact on cotton demand.

## ANNEX: TABLES AND FIGURES

### TABLES

<b>TABLE 1</b>			
<b>COTTON PRODUCTION</b>			
<b>Crop Year</b>	<b>Harvested Area (ha)</b>	<b>Production (Tonnes)</b>	<b>Yield (kg/ha)</b>
2005/06	546.880	863.700	1.580
2006/07	590.700	976.540	1.650
2007/08	530.253	867.716	1.640
2008/09	495.000	673.400	1.360
2009/10	420.000	638.250	1.520
2010/11	480.650	816.705	1.700
2011/12	542.000	954.600	1.760
2012/13	488.496	858.400	1.760
2013/14	450.890	877.500	1.950
2014/15	468.143	846.000	1.810
2015/16	434.013	738.000	1.700
2016/17	416.010	756.000	1.820
2017/18	501.853	882.000	1.760
2018/19	518.634	977.000	1.883

*Source: Turkish Statistical Institute(TurkStat),*

**TABLE 2**  
**PURCHASE PRICES OF THE COOPERATIVE UNIONS**  
**(For Std.1 Seed Cotton)**

<i>ASCUs</i>	<i>Tariş</i>		<i>Çukobirlik</i>	
<b>SEASONS</b>	<b>TL/KG</b>	<b>USCent/Kg</b>	<b>TL/KG.</b>	<b>US Cent/KG.</b>
<b>1997/98</b>	140 000	82.9	120 000	71.0
<b>1998/99</b>	195 000	71.4	160 000	58.5
<b>1999/00</b>	230 000	51.5	205 000	45.8
<b>2000/01</b>	380 000	59.2	305 000	47.5
<b>2001/02</b>	680 000	48.5	550 000	39.3
<b>2002/03</b>	800 000	48.8	650 000	39.7
<b>2003/04</b>	900 000	58.1	800 000	51.6
<b>2004/05</b>	900 000	61.0	840 000	56.0
<b>2005/06</b>	830 000	61.0	680 000	50.0
<b>2006/07</b>	1.0	66.0	0.74	49.0
<b>2007/08</b>	1.0	80.0	0.89	71.0
<b>2008/09</b>	1.0	77.0	0.85	65.0
<b>2009/10</b>	1.0	75.0	0.97	71.0
<b>2010/11</b>	1.50-1.80 TL/KG Variable price	1.00-1.20 US\$/KG Variable price	1.35-1.50TL/KG Variable price	0.90-1.10 US\$/KG Variable price
<b>2011/12</b>	<i>Variable price established by multiplying lint cotton price with ginning outturn ratio</i>			
<b>2012/13</b>	<i>Variable price established by multiplying lint cotton price with ginning outturn ratio</i>		<i>Variable price established by multiplying lint cotton price with ginning outturn ratio</i>	
<b>2013/14</b>	2.00 TL/kg	0.93 US cent/lb	1.80 TL/KG	0.90 US cent/lb
<b>2014/15</b>	1.60 TL/kg	0.94 US cent/lb	1.55TL/KG	0.70 US cent/lb
<b>2015/16</b>	2,03 TL/kg	0,69 \$/kg	1,82	0,62 \$/kg
<b>2016/17</b>	Variable prices depending on Commodity Exchange prices		2,08	0,70 \$/kg
<b>2017/18</b>	2,5 TL/kg	0,71 \$/kg	2,5 TL/kg	0,71 \$/kg
<b>2018/19</b>	3,50 – 4,00 TL/kg		3,85 TL/kg	
<b>2019/20*</b>	3,50 – 4,00 TL/kg		3,55 TL/kg	

*\*estimated*

<b>TABLE 3</b>	
<b>TURKEY COTTON CONSUMPTION</b>	
<b>Crop Year</b>	<b>(1000) TONNES</b>
<b>2000/01</b>	<b>1250</b>
<b>2001/02</b>	<b>1372</b>
<b>2002/03</b>	<b>1390</b>
<b>2003/04</b>	<b>1415</b>
<b>2004/05</b>	<b>1550</b>
<b>2005/06</b>	<b>1500</b>
<b>2006/07</b>	<b>1550</b>
<b>2007/08</b>	<b>1325</b>
<b>2008/09</b>	<b>1130</b>
<b>2009/10</b>	<b>1300</b>
<b>2010/11</b>	<b>1300</b>
<b>2011/12</b>	<b>1300</b>
<b>2012/13</b>	<b>1360</b>
<b>2013/14</b>	<b>1400</b>
<b>2014/15</b>	<b>1486</b>
<b>2015/16</b>	<b>1500</b>
<b>2016/17</b>	<b>1450</b>
<b>2017/18</b>	<b>1.481</b>
<b>2018/19</b>	<b>1.400</b>
<b>2019/20*</b>	<b>1.698</b>

(\*) *Estimated*

*Source: Turkish Statistical Institute (TurkStat),*

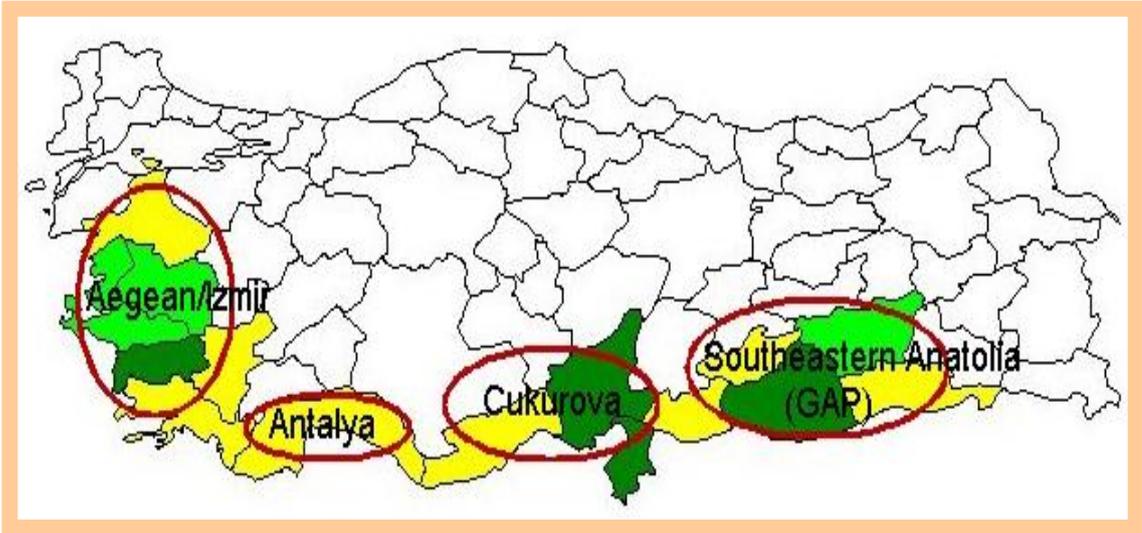
<b>TABLE 4</b>					
<b>Supply and Demand of Cotton during the last 3 seasons in Turkey</b>					
	<i>1000 tonnes</i>				
<b>SEASONS</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20*</b>
<b>Begining Stocks</b>	534	596	583	750	873
<b>Production</b>	738	756	882	977	950
<b>Imports</b>	918	801	876	761	750
<b>Total Supply</b>	2.190	2.153	2.341	2.488	2.573
<b>Exports</b>	50	72	70	104	80
<b>Consumption</b>	1.500	1.455	1.481	1.400	1.698
<b>Demand</b>	596	588	750	873	795
<b>Ending Stocks</b>	534	596	583	750	873

*\*Estimated*

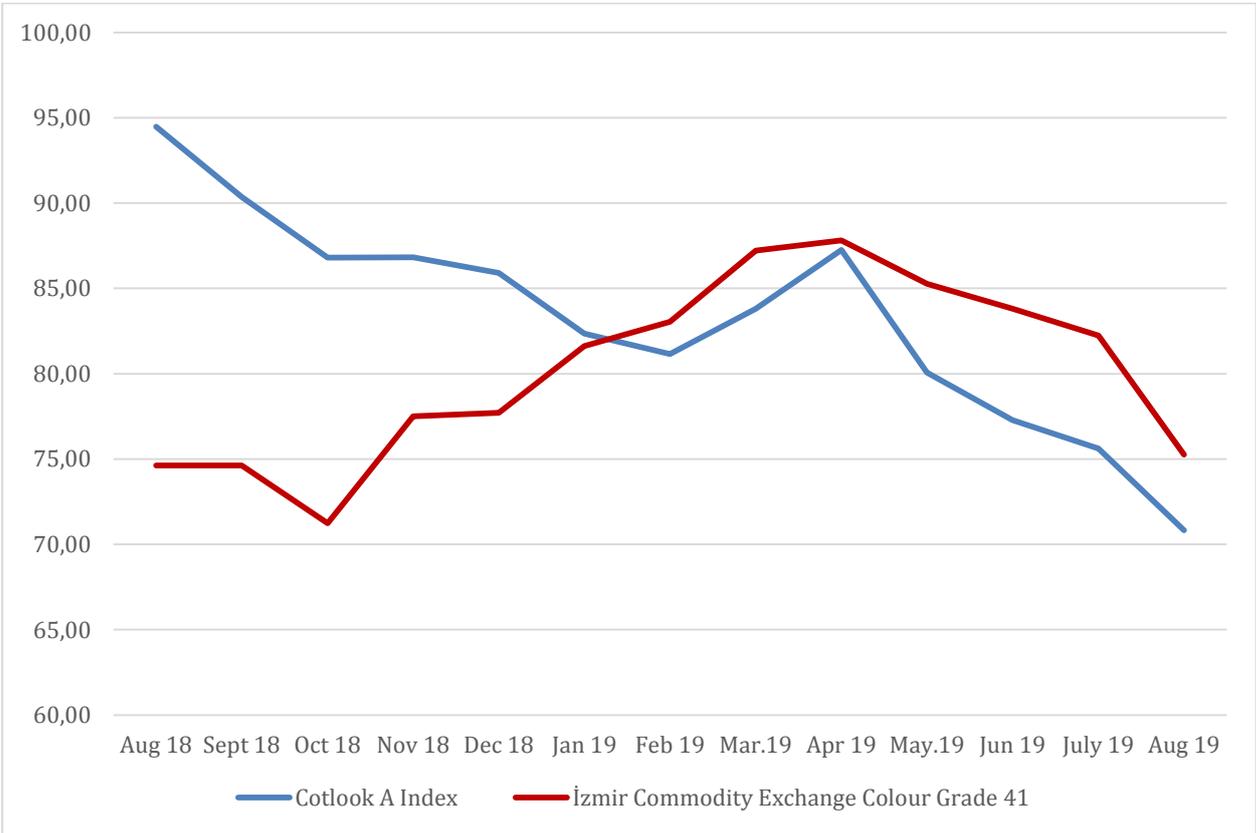
*Source: Foreign Trade: Turkish Statistical Institute(TurkStat), August-July seasonal datas,*

**FIGURES**

**FIGURE 1: Cotton Production Regions in Turkey**



**FIGURE 2: Comparison of Colour Grade 41 Izmir Cotton Domestic Prices with the Cotlook A Index**





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