From October 23 to 28, 2011 members of the ITMF Spinners Committee travelled to Turkey as part of the ongoing program of the Committee to visit cotton-producing countries around the world in an effort to strengthen the dialogue in the cotton pipeline between growers, ginners, seed breeders and cotton spinners.

Participants

Committee Members & Secretariat

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrew Macdonald</td>
<td>Brazil</td>
<td>Tavex (Committee Chairman)</td>
</tr>
<tr>
<td>Walter Simeoni</td>
<td>South Africa</td>
<td>WSInternational</td>
</tr>
<tr>
<td>Nevzat Seyok</td>
<td>Turkey</td>
<td>Karsu Tekstil</td>
</tr>
<tr>
<td>Christian Schindler</td>
<td>ITMF</td>
<td>Director General</td>
</tr>
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Invited Guests

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<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Company</th>
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</thead>
<tbody>
<tr>
<td>Ludwig Clément</td>
<td>Switzerland</td>
<td>Libero Commodities</td>
</tr>
<tr>
<td>Fatih Dogan</td>
<td>Turkey</td>
<td>Ari Tarim</td>
</tr>
</tbody>
</table>
Meetings and Visits

October 24, 2011
- Meeting with Mr. Can Piyale, Mr. Besim Ozek and Mr. Kubilay Kecelioglu of BOSSA in Adana
- Mill Visit at BOSSA in Adana
- First Gin Visit in Adana
- Second Gin Visit in Adana

October 25, 2011
- Meeting with Mr. Ali Ilbeyli of Beyteks in Adana
- Meeting with the Textile Association of Kahramanmaraş
- Visit of 2 textile mills (Mr. Kadir Kurtul of Iskur and Mr. Ertugrul Tanriverdi of Ensar) in Kahramanmaraş

October 26, 2011
- Meeting with Mr. Ahmet Sunay of Olusum Iplik San Tic Ltd. in Adiyaman
- Meeting with Mr. Emrullah Guclu of Guclu Tekstil in Urfa
- Visit of Guclu Tekstil in Urfa
- Visit of a Gin in Urfa

October 27, 2011
- Visit of a Gin between Urfa and Hatay
- Meeting with Mr. Aykut Ozbugday of the Seed Company (ProGen) in Hatay
- Visit of a Gin (ProGen) in Hatay

Travel Route
The Committee visited fields, gins and spinning mills the region of Cukurova in South East Turkey.

The visit started in Adana where the Committee visited the textile mills of Bossa and Beyteks. In addition several gins and cotton fields were visited. From Adana the Committee travelled to Kahramanmaras where it met with the Textile Association of Kahramanmaras and where it visited the textile mills of Iskur and Ensar, and examined some cotton fields on the way. The Committee continued its journey to Sanliurfa where it had the opportunity to visit the wonderful cultural sites in the city. Additionally the textile mill Olusum Iplik in Adiyaman was visited as well as two gins. En route to Hatay, the Committee visited a gin, cotton fields and the Ataturk dam. In Hatay the Committee visited the seed company ProGen, a gin as well as cotton fields.

The Committee would like to express its appreciation for the warm welcome and the interesting discussion and exchange of opinions whenever it had the opportunity to visit fields, gins or textile mills. The hospitality of all hosts was outstanding and made the country visit not only very informative but also very agreeable. The Committee would especially like to thank very much indeed Mr. Vito Mesulam and Mr. Fatih Dogan from Ari Tarim in Adana, who organized the visit.

Turkish Cotton Situation and Outlook

During the 12 years since the last visit of the Committee significant increases in cotton planted area could be observed in South-Eastern Anatolia, the so called “GAP” region, though the overall cotton area planted has decreased since the 1999/2000 season, from the peak in the 2002/2003 season of approximately 925’000 tons to a low of 375’000 tons in 2009/2010.

Last season 2010/2011 the production reached 450’000 tons while the 2011/2012 cotton crop is projected to reach 650’000 tons. However the recent increases should not be seen necessarily as a trend change, as it resulted mainly from soaring cotton prices in 2010 when prices reached record highs. Since then cotton prices have declined to around USD 0.90 c/lb and, due to high production costs and competition from alternative food crops (e.g. maize, soybeans or cereals) cotton growers are reportedly not likely maintain current production levels. *

Turkish Cotton Supply & Demand (in 1’000 tons)

<table>
<thead>
<tr>
<th></th>
<th>00/01</th>
<th>01/02</th>
<th>02/03</th>
<th>03/04</th>
<th>04/05</th>
<th>05/06</th>
<th>06/07</th>
<th>07/08</th>
<th>08/09</th>
<th>09/10</th>
<th>10/11</th>
<th>11/12</th>
</tr>
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<tbody>
<tr>
<td>Begin. Stocks</td>
<td>225</td>
<td>310</td>
<td>385</td>
<td>300</td>
<td>250</td>
<td>350</td>
<td>295</td>
<td>275</td>
<td>305</td>
<td>294</td>
<td>259</td>
<td>239</td>
</tr>
<tr>
<td>Prod.</td>
<td>875</td>
<td>850</td>
<td>925</td>
<td>900</td>
<td>900</td>
<td>800</td>
<td>775</td>
<td>625</td>
<td>425</td>
<td>375</td>
<td>450</td>
<td>650</td>
</tr>
<tr>
<td>Cons.</td>
<td>1’150</td>
<td>1’375</td>
<td>1’450</td>
<td>1’400</td>
<td>1’550</td>
<td>1’575</td>
<td>1’600</td>
<td>1’250</td>
<td>1’050</td>
<td>1’200</td>
<td>1’200</td>
<td>1’200</td>
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<tr>
<td>Imports</td>
<td>390</td>
<td>625</td>
<td>490</td>
<td>500</td>
<td>765</td>
<td>750</td>
<td>850</td>
<td>710</td>
<td>625</td>
<td>800</td>
<td>750</td>
<td>650</td>
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<tr>
<td>Exports</td>
<td>30</td>
<td>25</td>
<td>50</td>
<td>50</td>
<td>15</td>
<td>30</td>
<td>45</td>
<td>55</td>
<td>11</td>
<td>10</td>
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<td>305</td>
<td>294</td>
<td>259</td>
<td>239</td>
<td>319</td>
</tr>
</tbody>
</table>

* Source: Turkish country statement to the 2011 ICAC Plenary Meeting
**Cotton Acreage & Production by Regions (in 1’000)**

<table>
<thead>
<tr>
<th>Regions</th>
<th>2009/10</th>
<th>2010/11</th>
<th>2011/12</th>
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<tbody>
<tr>
<td></td>
<td>Hectare</td>
<td>Tons</td>
<td>%</td>
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<tr>
<td>South-East</td>
<td>150</td>
<td>235</td>
<td>63</td>
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<tr>
<td>Cukurova</td>
<td>40</td>
<td>55</td>
<td>15</td>
</tr>
<tr>
<td>Aegean</td>
<td>50</td>
<td>80</td>
<td>21</td>
</tr>
<tr>
<td>Antalya</td>
<td>4</td>
<td>5</td>
<td>1</td>
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<tr>
<td>Totals</td>
<td>244</td>
<td>375</td>
<td>100</td>
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**Imports by Origin 2010/2011 (in 1’000 tons)**

<table>
<thead>
<tr>
<th></th>
<th>U.S.</th>
<th>C.I.S.</th>
<th>Greece</th>
<th>Brazil</th>
<th>India</th>
<th>Egypt</th>
<th>Syria</th>
<th>Africa</th>
<th>Others</th>
<th>TOTAL</th>
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<tr>
<td>2010/11</td>
<td>480</td>
<td>102</td>
<td>90</td>
<td>30</td>
<td>13</td>
<td>5</td>
<td>3</td>
<td>8</td>
<td>17</td>
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**ITMF Spinners Committee Observations**

**On cotton**

In Turkey there are approx. 15 cotton varieties of which five are responsible for 80% of total cotton output.

A view of a cotton field in Hatay
Yields
With regard to yields on average approx. 300-400 kg of seed-cotton per 1’000 sqm are harvested. Maximum yields can reach up to 700 kg of seed-cotton per 1’000 sqm. Historically the great leap forward came in the 1950s when a high yielding seed from Syria was introduced in Turkey. However though this seed doubled the yield, the staple suffered as a consequence though today this characteristic is still within an excellent range.

GMO
Genetically modified cotton (GMO) cotton is not allowed in Turkey. There are heavy penalties of up to six years imprisonment growing GMO cotton. Importers of cotton have to guarantee GMO-free cotton (though this, by necessity is meaningless, since identification and separation of such cotton origin is not possible).

Seed Production
The seed company ProGen based in Hatay is the major producer of conventional hybrid cottonseeds in Turkey and has contracted farmers all over the country. As a point of interest the propagation rate is 40-50 seeds per plant or 30kg/hectare. 50% of Turkey’s cottonseed production is prepared in Hatay (various varieties) As far as ginning of the seeds is concerned ProGen prefers machine-picked cotton as it is less leafy. 10’000 tons of treated seeds are handled every year by ProGen that are ginned at some of their own gins as well as other gins. In order to guarantee the best yield results farmers should use the seeds just once and definitely not more than twice.

On hand picking versus machine picking
In 1999 only 5% of all cotton harvested in Turkey was machine picked. At the time during the last visit, the Taris Cotton Cooperative anticipated that the share of machine picking would increase significantly in the coming years.
Twelve years later in 2011 approximately 75% of all cotton is now machine picked. The main reason being economic, but this has certainly not improved the quality of Turkish Cotton. Labor costs, and the lack of availability of workers prepared to undertake this type of work, have increased substantially during this period. The trend to machine picking has also been aided by the increase in the average size of farms. The minimum size today is 20,000 square meters (2 hectares).

So the Committee was distressed to observe the very poor quality of the machine picking, the seed cotton being full of green leaves and bark and whilst the few farms visited which were still hand picking, the quality was no better, as is traditionally the case, since the pickers were picking the cotton together with a lot of dry leaves, green leaves and even the complete stalks – a very unusual reversal of the previous situation.

Clearly the hand pickers do not have an incentive to pick clean cotton as in the past, since the fierce competition between the ginners forces them to pay the farmers or middle-men for the delivered seed cotton by weight, and the discounts for humidity, leaf and color are relatively small.

The Spinners Committee is of the opinion that machine picking of cotton is the right way forward and that hand picking will become obsolete in the near future. Since the quality level of hand picked cotton is seemingly worse than that of machine picked cotton, growers should concentrate on improving further the quality of machine picking, including the machinery. One major problem observed by the Spinners Committee was the fact that due to the still relatively small plots only about 20% of the farmers own picking machines themselves, while the 80% have to rent them. Those who have to rent can run into problems when the machines are not available on time (for example after defoliation when there can be a regrowth of small leaves increasing the level of impurities in the seed-cotton). Also another problem of renting harvesters is the quality and improper use of the machines that arise. Most picking machines are imported from manufacturers like Case or John Deere, but recently also Turkish manufacturers of picking machines are on the market. In general it has to be stated that it is essential for a successful implementation of machine picking processes that there is proper land preparation and good farming practices are applied.
On ginning

The share of roller-ginned cotton increased since the last visit of the Spinners Committee in 1999 from 95% to 99%. The Committee recommends in general roller-ginning as the intrinsic properties of the cotton fibers are better preserved as compared to saw-ginning.

In this respect it has always been recommended to avoid any sort of pre-cleaning of the seed-cotton as this damages the properties of the fibers. Ginners should pay attention to the quality of the delivered seed-cotton with regard to the quality and foreign matters as pointed out above.
It was reported that today due to the lower trash content, saw-ginned cotton is sold at a premium as compared to roller-ginned cotton, and some spinners stated that saw ginned cotton is preferred due to the lower degree of trash content.

**On fiber quality**
In general the quality of Turkish cotton is excellent. Unfortunately the spinners cannot benefit in full as the quality of the fibers is deteriorated in the ginning and pre-cleaning processes, as a result the spinning mills visited by the Committee are consuming both domestic and imported cotton. Some spinners producing higher count yarns are consuming only imported cotton as they regard Turkish cotton as being contaminated with foreign matter. Cotton imports are from the U.S., C.I.S., Greece, Brazil, India, Egypt, Syria, etc.

**On contamination**
The Committee also observed that foreign matter often finds its way into the ginning process. Though forbidden some pickers still use plastic bags – plastic fabrics or strings are the worst source of contamination. At the gin level sources of contamination are often the jute bags in which the cotton is transported from the fields to the gins. As far as the strings for closing the bags are concerned the Committee was delighted to observe that cotton strings are now being used instead of polypropylene as was noted on the last visit, but even still recommends that the cotton strings should not be cut and left in the seed-cotton, but should be taken out since in the roller gins these strings are not destroyed as they would be in a saw gin, and so still arrive at the spinner as contamination.

For the Committee it was interesting to learn that some spinners pay a premium for non-contaminated Turkish cotton. The Committee encouraged the managements of the various gins to pay more attention to problem of contamination. Since the intrinsic values of the Turkish cotton are very good indeed, any level of contamination damages the reputation of Turkish cotton and reduces the best possible prices.
On organic and BCI cotton

It was noted by the Spinners Committee that for organic cotton a premium of US cents 30-40 c/lb is paid. Also for BCI cotton a premium of around 5% is being paid.

On textile industry activity

Until 2007 the Turkish textile industry experienced a steady upward trend with cotton consumption peaking in 2006/2007 at 1.6 million tons. With the beginning of the global financial and economic crisis in 2007 the situation of the Turkish textile industry deteriorated. Cotton consumption fell to 1.25 million tons in 2007/2008 and 1.05 million tons in 2008/2009. With the global recovery Turkish cotton consumption increased to 1.2 million tons both in 2009/2010 and 2010/2011. Also for the season 2011/2012 Turkish cotton consumption is expected to remain constant around 1.2 million tons.

The Turkish textile industry has invested heavily in the aftermath of the world financial and economic crisis of 2008/2009. According to ITMF’s International Textile Machinery Shipment Statistics (ITMSS) investments in new ring spindles and open-end rotors soared in 2010. The industry is benefiting from the proximity to the EU market, its most important export market. The fact that there is only a minimal time zone difference of not more than one hour certainly helps to do business with European customers. The flexible and versatile Turkish textile mills are making use of the customs union with the EU. With significant new investments in spinning machinery during the past two years and Turkish cotton prices among the lowest in the world today, cotton consumption at the mill level is likely to increase in Turkey. On the other hand low cotton prices are likely to cause lower cotton production in the future if other crops offer better returns. As a result cotton imports might increase again in the future.

It was interesting to note that investments in the Turkish textile industry are taking place in rather larger steps as opposed to regular but smaller investments. One explanation for this might be to use profits in good times for investments in the replacement and/or expansion of the machinery park.

Conclusions & Recommendations

The Turkish textile industry continues to invest heavily in its machinery park in order to produce with the latest technology thus remaining competitive. Also the Turkish ginning industry is investing regularly in new equipment. It is mainly investing in roller ginning machines that are not as productive as saw ginning machines but that preserve the very good intrinsic values of the Turkish cotton better. The Committee notes that in order to make best use of the good seed-cotton and the good installed ginning technology also the growing (seed selection, planting, fertilizing and spraying) and harvesting of the seed cotton, has to be optimized in order to reduce the high level of trash impurities. As it stands the main problem of the Turkish cotton industry is the high level of trash in both hand- and machine picked cotton. The main demand from cotton spinners around the world is certainly for good quality fibers and that is why the Spinners Committee continues visiting cotton growing areas the world over to encourage the process of every increasing quality of cotton in all respects.

The Committee’s main recommendations would be to introduce legislation regarding machine picking as well as legislation as regards receiving cotton at the gins, so as to only accept well picked seed-cotton at the gins, be it machine or manual, unless with very heavy discounts. The introduction of the need to introduce special cleaning equipment at the gins, similar to what is used in saw ginning, greatly reduces the advantages of roller ginned cotton, which is noted for its excellent characteristics in terms of fiber length, low nep count and low short fiber content.
Furthermore the Committee emphasizes that only cotton bags should be used in picking and transporting seed cotton to the gins thus avoiding unnecessary sources for foreign matters. While it is forbidden by law to pick cotton with plastic bags, the Committee observed sporadically plastic bags in the fields. Additionally, ginners should refuse seed cotton delivered in plastic bags.

Turkish roller ginned cotton was famous for its quality and, if the current system, of hiring harvesting machines and paying the owners for time and weight, rather than quality of the picking with well adjusted and maintained machines, is not corrected, the cotton will deteriorate into a normal machine picked cotton and lose much of its value.

The textile industry of Turkey should join together to force the introduction of the requirements necessary to ensure the production of good quality Turkish Cotton.