



2018
ZIMBABWE
COUNTRY REPORT

"Cotton Challenges : Smart and Sustainable Solutions"

77TH PLENARY MEETING OF THE
INTERNATIONAL COTTON ADVISORY COMMITTEE

Abidjan, Cote d'Ivoire | 02 – 06 December 2018

1. ZIMBABWE - BACKGROUND

Zimbabwe is situated at the center of Southern Africa and borders Zambia to the north, Mozambique to the east, South Africa to the south, Botswana and Namibia to the west. It lies within the tropics, situated 15 and 22° south latitude and 26 and 34° east longitude. The Country profile is as follows:

- Capital city is Harare.
- Total land area is 390 245 km² (150 872 miles²).
- Pleasant climate. The country is divided into five distinct agro-ecological natural regions
- Population is 16.5 million.
- Major sectors are Agriculture, Mining, Manufacturing and Tourism (Zimbabwe is home to one of the Seven Wonders of the World - The Victoria Falls).
- GDP is \$20.5 billion.
- Agriculture contributes 8-10% to GDP. The sector provides employment and livelihoods to about 70% of the population and accounts for 40% of the country's total exports.

Figure 1: Location of Zimbabwe in Southern Africa

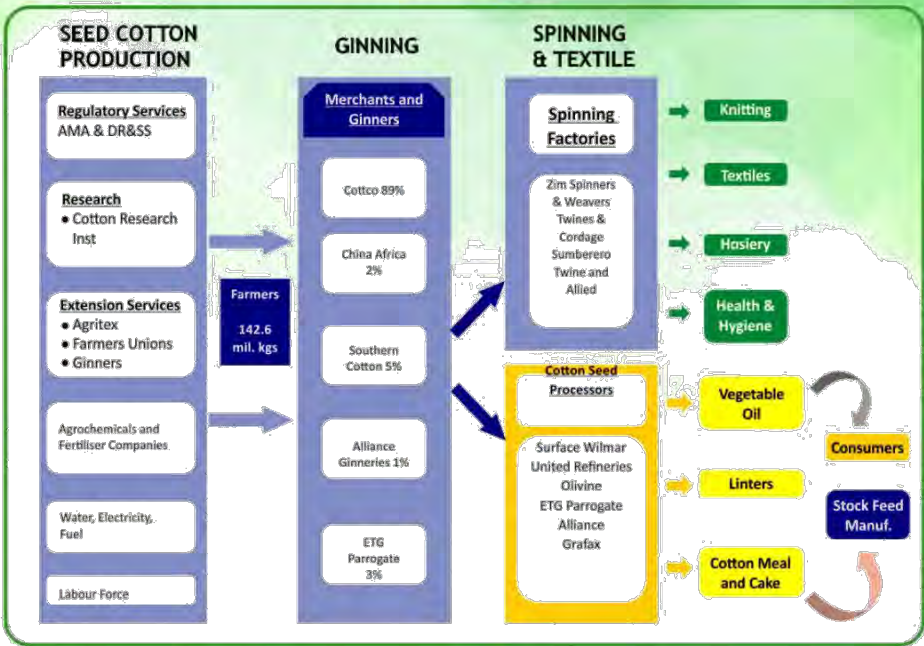


2. THE STRUCTURE OF THE ZIMBABWE COTTON INDUSTRY

Cotton is a strategic crop for improving rural livelihoods in Zimbabwe. It is a drought tolerant crop that is suitable for the drier areas of the country. Cotton is grown by an estimated 300 000 smallholder farmers. The sector is a major source of livelihood for approximately 600 000 people, including farmers, farm workers, their families and industrial workers. It contributes to income, employment and export earnings.

The Zimbabwean cotton value chain comprises seed cotton production, ginning, spinning, textile and clothing as shown in Figure 2. About 20-30% of lint produced is consumed locally by the spinning and textile industry while the rest is exported as lint to regional and international markets.

FIGURE 2: THE COTTON INDUSTRY IN ZIMBABWE



PRODUCTION

Cotton is the mainstay of smallholder farmers in the drier regions of Midlands, Lowveld and the Zambezi Valley of Zimbabwe. The cotton sector is on a rebound and growth trajectory after experiencing low production a few years ago. The input scheme introduced by Government to cotton growers has resulted in production increasing during the last two seasons.

Cotton farmers in Zimbabwe depend on rain-fed agriculture. Planting starts between October and December while harvesting occurs from March to end in July for the late crop. As the crop is harvested, then marketing will be taking place then simultaneously ginning begins and this goes on until November/December. Spinning and weaving happens throughout the year.

Over 90% of cotton grown in Zimbabwe is grown through contract growing through input funding arrangements by various ginners and merchants. A total of five ginners were registered as cotton contractors in the 2017/18 season. Contractors supply production inputs (seed, fertilizers and chemicals) to contracted farmers on loan as well as provide extension services. Starting 2014/15 season, Government has complemented the contract production programme by availing inputs in the form of seed, fertilizer and chemicals to cotton farmers in an effort to resuscitate the cotton sector.

The Agricultural Marketing Authority (AMA) is the regulator in Zimbabwe's agricultural sector. Cotton companies are licenced by AMA to participate in both the production and marketing of seed cotton. The Authority is mandated to ensure fair and orderly marketing of seed cotton and prevent side marketing of seed cotton to non-contractors. AMA administers the production and marketing framework that involves management of a central common database for input distribution that is developed during the production season to avoid multiple contracting by a farmer to various contractors.

The common database is used at all cotton buying points during the marketing season to ensure the contractors buy from their contracted farmers. The data base is centrally stored by AMA. A country-wide network of over 200 common input distribution points and common buying points is used to disburse inputs to farmers and buy seed cotton respectively.

The trend in production over the past two decades is given in Figure 2 below.

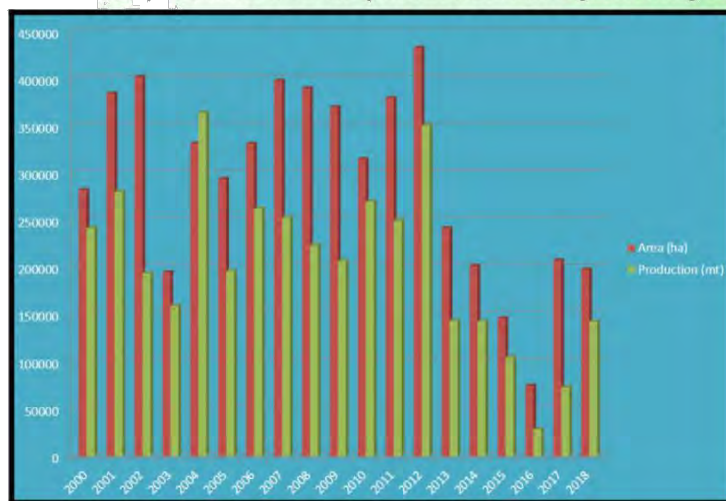


Table 1: Seed Cotton Production, Average Yield and Producer Prices

SEASON	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Production (mt)*	350,000	143,000	143,100	103,000	28 425	73 035	142 623
Yield (kg/ha)	770	561	640	447	281	354	721
Hectares	450,000	295,000	255,000	230,000	101 000	207 000	198 063
Ave. Price (USc/kg)	37	50	60	30	36	47	52

*Seed Cotton

COTTON QUALITY

Cotton produced in Zimbabwe is of high quality with over 95% falling in the middling to good middling class as shown in Table 2 below (Next Page).

Table 2: Quality of Zimbabwean Cotton - 2017 and 2018

COTTON LINT GRADES	% OF TOTAL PRODUCTION 2017	% OF TOTAL PRODUCTION 2018
Good Middling	8.00	3.04
Strict Middling	67.49	81.09
Middling	20.00	15.11
Strict Low Middling	0.73	0.77
Low Middling	3.76	-
Strict Good Ordinary	-	-
Good Ordinary	0.01	-
TOTAL	100.00	100.00

A programme to train and equip farmers with skills to improve the quality of cotton is in place.

RESEARCH AND DEVELOPMENT

In Zimbabwe, research and development (R & D) is championed by the Cotton Research Institute (CRI) which falls under the Ministry of Agriculture. The Cotton Research Institute was established in 1925 to provide research-based technologies that promote viable and sustainable cotton production in Zimbabwe. The institute has the national mandate to develop and disseminate viable, practical and sustainable cotton production technologies that meet the needs of the cotton industry. CRI has, since its establishment supported the cotton industry with high quality locally adapted cotton varieties and appropriate agronomic and entomological technologies. These efforts are complemented by private seed companies such as Quton Seed Company and Alliance Gineries which also undertake R&D in cotton.

Zimbabwe boasts of a strong and well organised cotton research sector that has been able to provide technologies that sustained the cotton industry to this day. Cotton breeding, cotton agronomy, cotton entomology, and cotton pathology form the framework of the research structure. Each of the four disciplines holds a specific mandate. Put together, the four disciplines attend to every aspect of cotton from generation of germplasm to post harvest handling and processing. These disciplines are all found at the Cotton Research Institute farm in Kadoma located in central Zimbabwe and this promotes easy interdisciplinary research coordination and collaboration.

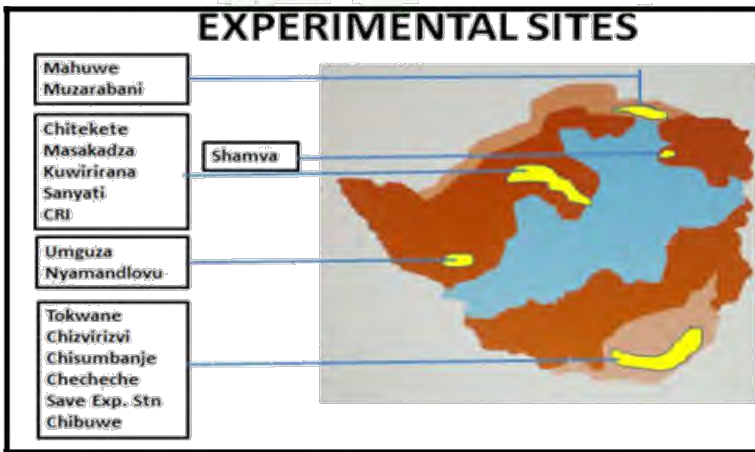
CRI's programmes are financed directly by Central Government and the Agricultural Marketing Authority. Institutional commercial cropping activities and royalty fees from cotton seed sales by seed houses play a complementary role. CRI has been the kingpin throughout the history of cotton in Zimbabwe and continues to be the hope of the cotton industry's technological development aspirations into the future.

Zimbabwe hosted the 2018 International Cotton Advisory Committee (ICAC) XIV Meeting of the Southern & Eastern Africa Cotton Forum (SEACF) in Harare from 4 - 6 July 2018 whose theme was “Global best practices for cotton yield enhancement in Africa”.

Experimental Locations

Currently the Institute has about 17 experimental locations around the country including the research centre in Kadoma. At the locations research trials are established every year. The main purpose of these sites is for researchers to carry out research in the farmers' environment, with close participation of the farmer and extension personnel. Research results therefore would be expected to be more representative of the cotton growing areas in Zimbabwe.

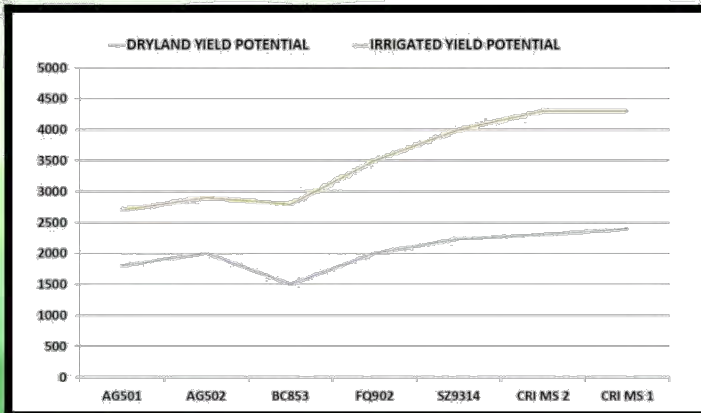
FIGURE 3: MAP OF ZIMBABWE SHOWING EXPERIMENTAL SITES



Progress in Variety Development

Varieties developed by the Cotton Research Institute have high potential in yield, ginning percentage, and lint quality.

Figure 4: Yield Potential of CRI Varieties (kg/ha seed cotton)



Germplasm Generation

Cotton Research Institute has a very active hybridization program that involves in part the fusion of Asian with local genotypes. This achievement strengthens and expands the genetic pool which forms the base for progressive variety development. Mutual genetic exchange partnerships are invaluable.

The Concept of Participatory Variety Evaluation

The institute introduced in its research programs the concept of participatory research which involves soliciting stakeholder opinion about the performance of technologies at the stage of development and evaluation.

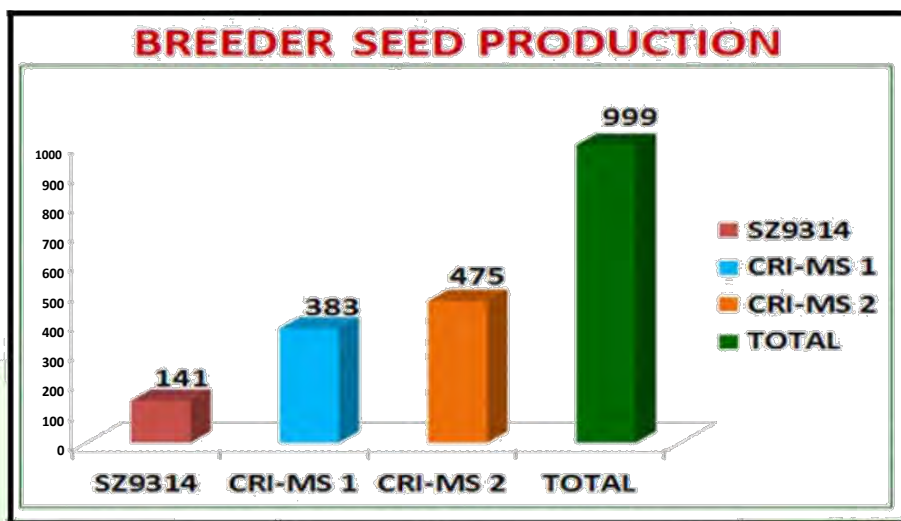
The Veguam high Volume instrument (HVI)

Zimbabwe is now one of countries with modern Rapid Fibre Testing Machines in their laboratories. This facilitates evaluation of varietal performance. The gin out-turn percentage of Zimbabwe's cotton which averages 41-43% is ranked highly in Africa. The high uptake of Zimbabwe's cotton by the export market has been an indicator of acceptability of its fibre quality.

Breeder's Seed Production

CRI produces cotton breeders seed for supply to seed houses.

The cotton varieties on demand in 2018 were SZ9314, CRI-MS 1, and CRI-MS 2 as shown below.



Technology Transfer

The Institute disseminates research information through:

(i) Publications

- Cotton production and training manuals for stakeholders. Five books were published since 2010.
- **Scientific Papers:** The Institute has published 13 scientific papers in online journals and conference proceedings.

(ii) Training of extension staff

(iii) Field Days

The Cotton Research Institute is open to research collaboration with cotton research institutions in other countries as a way of strengthening information exchange.

Ginning

In Zimbabwe average ginning outturn is cotton seed 58%, lint 41% and the waste-linters 1%. Zimbabwe has vast ginning capacity of up to 600 000mt/year comprising of roller and saw gins. Capacity utilization is about 30%. Great potential therefore exists to increase seed cotton production to supply this ginning capacity with raw material. The ginneries are located across the country in all major cotton growing areas.

Oil Expressing

Oil expressing is a major activity in Zimbabwe and it is supported by availability of the seed raw material produced by the ginneries. There is adequate capacity to absorb all the cotton seed produced in years of high production. The by-products of meal and cake are processed further locally into stockfeeds or exported regionally or to the international market.

Textiles and Garment Manufacturing

Zimbabwe has limited textile capacity. The number of textile factories has declined from 200 at peak to the current position of about eight (8) textile firms. There is unfulfilled demand in the clothing sector which has resorted to importing fabric to meet the shortfall. Zimbabwe's national fabric consumption stands at approximately 18 million meters of fabric, of which only 10% is sourced locally with the remainder being imported from China and South Africa. The clothing sector produces high quality cotton garments/brands which are in demand on both regional and international markets. Challenges which include high cost of production and competition from cheap poor quality imports have negatively impacted on the viability of the textile manufacturing and clothing sector.

3. CHALLENGES IN THE COTTON SECTOR

There are a number of challenges faced by the cotton sector. These include:

- Low productivity. Average yield per hectare is below potential.
- Heavily subsidized world cotton suppressing international prices and reducing farm viability.
- Climate change and changing weather patterns. The Zimbabwean cotton farmers depend on natural rains for production and as such are vulnerable to climatic uncertainty in the face of climate change.
- Low yields per hectare as a result of low utilization of inputs, limited knowledge in improved agronomic practices and integrated pest and disease management amongst the vast majority of the cotton producers. New pests are emerging such as the fall armyworm and the mealy bug. New technologies are required to deal with such pests.
- Inadequate extension services both from public institutes (AGRITEX) and private sector (cotton companies). The current average field extension officer to farmer ratio is around 1:600. This needs improvement in order for the majority of farmers to benefit from extension services.
- High input costs. Most of the inputs have to be imported from outside the country hence making the production costly versus low prices offered on the market for the seed cotton.
- Inadequate and late input distribution by the cotton contracting companies has negative impact on the yield levels and output.
- Low level utilization of ginning, spinning, weaving, knitting and dyeing capacity.
- Competition from cheap synthetics.

4. MEASURES TAKEN TO ENHANCE SUSTAINABILITY OF COTTON

The measures given below have been put in place in Zimbabwe in an effort to enhance the sustainability of the cotton industry:

The Cotton Input Support Programme

In an effort to increase cotton production, the Government has put in place an input support programme for cotton beginning 2015. Under the programme, cotton farmers access planting seed, fertilisers and chemicals.

Research and Development and Disease Control

A Cotton Industry Fund was established in 2011 to finance technical research on improved and high yielding varieties that are suited to Zimbabwean conditions as well as developing disease resistant varieties. Disease control measures are also financed under the Fund.

Farmer Training and Extension Support

The Agricultural Marketing Authority in partnership with the national extension service embarked on field schools training programs in 2012 for both cotton producers and extension workers (both public & private) to impart knowledge on good agronomic practices in order to increase production and improve quality. This is complemented by training offered by Cotton Research Institute. The aim is to increase cotton production and quality through this initiative.

Zimbabwe Government's New Open for Business Investment Policy

Government's new thrust is aimed at revitalizing agriculture and the agro-processing value chain, advancing beneficiation and/or value addition to the agricultural sector and promoting joint ventures and public-private partnerships (PPP) and other investment initiatives.

Zimbabwe has comparative advantage in cotton production and potential farmers are available and a conducive operating regulatory framework is in place to protect both investor and farmer interests.

A fund is in place to support research and farmer training to continuously improve on technological advances. Potential also exists to develop linkages and collaboration between local research institutes and international counterparts for improved technological advances.

Zimbabwe cotton is of high quality as evidenced by results given above. Potential for investment along the various stages from production, spinning, weaving, dyeing & printing remains available.

The country has an installed ginning capacity of approximately 600 000 tonnes, well above the cotton seed production providing opportunities for increased production to supply raw material to the ginning industry.

There is limited value addition taking place in the industry with spinning capacity currently at less than 30% of the total lint available. The spinning, weaving and knitting industry remains open for more investors to utilize the abundant lint raw material that is available locally using modern technologies to supply both the domestic market and for export.

Incentives for investors are available and provided for in the statutes including the legislation on Special Economic Zones which gives tax holidays and other incentives to new investors.

Investment procedures have been streamlined through the recent establishment of a one stop investment centre.

November 2018

For more information, visit www.ama.co.zw or call the Agricultural Marketing Authority of Zimbabwe on (263) 242 308 622-4