

# **Zimbabwe: Cotton Industry, Research, Production and Marketing**

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## **Research, Training and Extension**

Research is driven by two separate bodies, the first and longest established is the Government-owned and run Cotton Research Institute (CRI) based in Kadoma. CRI operates a full programme of commodity based research with key functions being plant breeding, agronomy and physiology, pathology and pest research. All varieties that have been grown commercially in Zimbabwe to date, including the current mainstream variety, Albar SZ 9314 have emanated from CRI's breeding efforts.

Some key outputs from CRI's efforts over the years have been the development of scouting based spray programmes for pests, management strategies to prolong effective life of key pesticide groups such as synthetic pyrethroids and acaricides and appropriate technologies for pesticide application and the use of additives such as molasses for biological effect and to reduce evaporation.

From agronomic and physiology trials, recommendations have evolved for reducing potassium deficiency symptoms in heavy red soils, on optimal plant populations for date of planting, irrigation scheduling, use of growth regulators and defoliant, development of moisture conservation strategies to minimize soil loss and water run-off during heavy storms such as pot-holing and inter-row ripping and planting techniques into crop residues, optimal fertilizer and herbicide use.

CRI's breeding programme has evolved a long line of high quality cultivars that have kept Zimbabwe cotton at the forefront of competing cottons in the world market. These varieties have all been called Albars and they are characterized by hairy leaves (jassid resistance), bacterial blight resistance, tolerance to Verticillium wilt, indeterminate growth habits, drought tolerance and large bolls and seed cotton with relatively high lint out-turns (+/-41% in recent years). They are medium-long staple with good maturity, premium micronaire range (3.8 to 4.5) and good strength and elongation. These attributes, when combined with hand-picked production, seed cotton grading and good ginning practices and HVI lint testing, result in a highly sought after fibre that gives reliable and predictable mill performance from the even-running bales of lint offered.

CRI has also developed long staple varieties with desirable lint for certain niche markets and the current commercial cultivar is called LS 9219.

In addition to CRI's work, since 1998 Quton Seed Company has also operated a full breeding and agronomy programme. Quton is the only cotton planting seed company operating in Zimbabwe and it has the mandate to multiply and market CRI varieties both for internal consumption and in any export markets that develop. Quton's efforts compliment the work of CRI and in November 2007 released its first variety to be known as Albar Plus QM 301. Limited commercial production of this variety will take place in the 2008/2009 season. Quton is also having some of its germplasm transformed with insect resistant and herbicide-tolerant genes and these will come back for field testing and commercialization once the process is complete. Quton has some capacity to do seedling and seed treatment evaluations and the quality control systems used ensure that seed produced and sold is the equal of any in the world.

Production training and in-season extension is undertaken by the Cotton Training Centre (CTC) in Kadoma and it runs courses that are sponsored by the European Union and also field courses for the ginning companies in their areas of operation. Other courses on offer include scouting, picking and grading courses. The CTC also offer a regional Course each year open to agricultural graduates who need more specialized training in cotton production.

Extension is largely done by the government Department of Agritex and by the ginning companies through their field agents who identify, contract, provide inputs and advise and then ensure the crop is purchased from their growers.

## **Production in Zimbabwe**

Production in Zimbabwe today is almost totally smallholder-driven and done under contract to the ginning companies registered in Zimbabwe. Average holdings are 1-2 hectares and most is either planted by hand or by ox-drawn planters. Government efforts to mechanise agriculture will result in more cotton being planted by tractor-drawn planters in due course.

Seed sales have climbed from just over 5 000 tonnes four years ago to a record 11 500 tonnes for the 2007/2008 season. All seed sold in Zimbabwe is either acid- or mechanically-delinted and treated with suitable fungicides and insecticides that provide early season relief from sucking pests.

Most production is funded by the ginning and marketing companies that operate under the umbrella of the Cotton Ginners Association (CGA). They purchase seed, fertilisers and other inputs such as sprayers and pesticides and these are then issued to growers as required during the season. The grower repays the debt by delivering seed cotton and the cost of inputs is deducted as pre-determined, agreed kilogrammes of seed cotton. However shortages of inputs and the risk associated with contract farming arrangements in a de-regulated environment has meant that input packages still have some way to go to meet growers' real needs and have any chance of boosting yields to targeted levels.

The aim of the cotton industry in Zimbabwe is to try and achieve a crop of 1 million tonnes of seed cotton by 2011. This can only be achieved by a two pronged approach, recruiting new growers and

maximizing yields per hectare of both new and old growers through a combination of good training and extension applied to appropriate varieties, good agronomy and with improved input availability.

Production in 2007/2008 is expected to exceed 320 000 tonnes of seed cotton, up significantly from the 253 000 tonnes achieved in 2006/2007.

## **Marketing in Zimbabwe**

This obviously occurs at two levels with the primary market being the purchase of seed cotton from the growers. Government is well aware of the need to have appropriate legislation in place to ensure that standards can be maintained. However until it is in place a continued deterioration of the standard of seed cotton purchased is inevitable. Seed cotton purchasing is now done by at least 25 companies operating each year of which about 15 operate their own ginneries. The remainder toll gin. Seed cotton is bought for cash at the farm gate and moved to ginneries from a network of collection points and transit depots. Cotton packs are supplied for free to the growers and each can hold 200 to 250 kgs of seed cotton. Buyers try and supply their growers with polyethylene picking bags to try and minimize the effect of polypropylene contamination from grain bags which would otherwise be used.

Lint is classified according to individual company standards and well established players still maintain a solid reputation in local and export markets for the quality of the lint they offer. Approximately 30% of national production is consumed by the local textile industry and the rest exported. All the ginned goes into the oil expressing industry where there are a number of large and some small players. Some 70% of Zimbabwe's edible oil comes from cotton seed and the cake goes into the stockfeed industry.

## **Cotton Industry in Zimbabwe**

The whole industry tries to operate under an umbrella body called the National Cotton Association and its Council (NCC) tries to voluntarily regulate activities of members and guide Government policies to ensure growth takes place. Constituent bodies of the NCC include the Ministries of Agriculture and of Industry and International Trade, Cotton Ginners' Association, Quton Seed Company, Farmers' Unions, Textile Manufacturers' Association, Oil Expressors and the Zimbabwe Clothing Manufacturers' Association.

Once suitable legislation is in place, it is believed that the industry will be well placed for real growth.

