

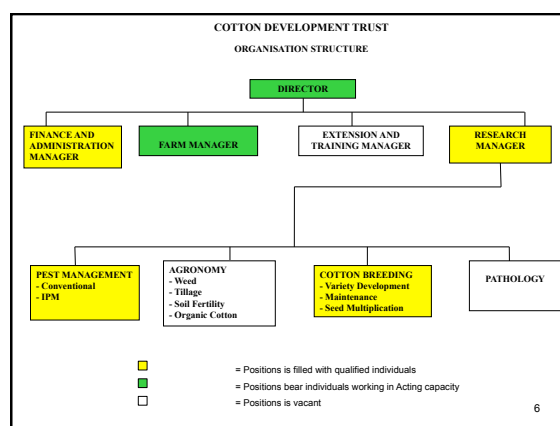
- Total land suitable for Cotton production is about one million hectares.
 - Only about 200,000ha is devoted to cotton.
 - About 480,000 farmers are engaged in cotton production at the beginning of 2011/12 farming season.
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- ## COTTON DEVELOPMENT TRUST
- The CDT carries out work at its main station at Magoye, Mazabuka District (350 ha).
 - Research trials are replicated at research stations belonging to the Zambia Agricultural Research Institute (ZARI).
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Status of Cotton Research in Zambia

The cotton Development Trust has taken up the challenge of improving the low yields and poor fibre quality in the cotton sector through its research, seed maintenance and production, extension and training programmes.

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Breeding

- Over the last several years CDT has been working on the development of varieties with high yielding potential, superior ginning out-turn and acceptable fibre quality.
- Currently CDT has released 5 commercial varieties: F135, Chureza, CDTII and CDTIV.

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Varieties developed at CDT

Characteristics of the cotton varieties grown in Zambia

Variety	Average boll weight (g)	Ginning Outturn (%)	Staple length (mm)	Mean days to flowering	Mean seed cotton yield (kg/ha)	Zone in which variety is grown
CHUREZA	4.8	44.6		Medium - late flowering	1.587	Eastern Province
F135	5.4	41.8		60 – 70	1.394	Shelved
CDTII	5.0 - 5.5	40 – 43.5	Medium (29 – 30)	50-60	1.5 - 2.5	Central province
CDTV	5.5 - 6.0	44 - 46.5	Medium (29 – 30)	50 - 60	1.5 – 2.5	Southern Province

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Agronomy

The agronomy section has in the past conducted trials and demonstrations to encourage farmers adopt good farming practises. These are outlined below as:

- On-farm Cotton Variety Trial – Across various locations: this is to conduct on-farm verification of promising genotypes that have been identified by the breeder as having potential.
- Plant density of cotton in basins trial: compare different plant densities with the recommended plant density of 4 plants/basin
- Lime on cotton trial: to monitor the soil Ph and yield performance on different liming rates over seasons.

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- Cotton Management demonstration: demonstrate to farmers the importance of timely and adequate implementation of cotton management
- Maize/Legume/cotton rotation demonstration: to assess and demonstrate the residual fertility and nitrogen fixing in the rotation over seasons
- Comparison of Tillage systems in Cotton/Maize/Cowpea rotations: to compare performance of cotton when grown in ploughed and planting basin plots over seasons

For the 2011/12 farming season, the institute had no agronomist to carry out the trials.

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Entomology

The IPM department was setup in 2007/8 with assistance from the World Bank through the Agriculture Development Support Project. The following trials were conducted during the 2011/12 farming season:

- Host Plant Tolerance Studies:** Testing/screening promising strains/new varieties and comparing them with existing commercial varieties for their tolerance against bollworm attack.
- Assessment of the effects of intercropping patterns on incidence and damage to cotton in Magoye, Mazabuka district of Zambia:** to assess the effects of intercropping patterns on incidence and damage to cotton by bollworms and carry out an economic analysis on intercropping in cotton.
- Organic Cotton Demonstration:** to compare the effectiveness of using interplants and various bio pesticides in organic cotton.
- Scouting Demonstration plot:** Compare and contrast the performance of a scouting-spray regime and a calendar-spray regime in controlling major cotton pests.

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IPM Model Group of Farmers

The IPM model group located in Magoye was contracted by CDT to grow pre-basic seed cotton. The farmers were provided with a loan of:

- Cotton seed,
- Pesticides,
- Foliar fertilizer,
- Free extension services.

Table 1 shows that over the years with IPM training, there is a gradual increase in the average yield.

Performance of the IPM model group over 4 cotton growing seasons.

Year	Total hectorage (ha)	Total yield (kg)	Average yield (kg/ha)
2008/09 farming season	19.1 ha	11, 596	607
2009/10 farming season	-	-	-
2010/11 farming season	47.5	30,107	634
2011/12 farming season	45.5	36, 650	805

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IPM Farmer Training in Multi locations

IPM training for farmers is also conducted in multi locations. The training targets farmers from various ginning companies. It is conducted approximately 3 times a year depending on the nature of the season.

Number of farmers trained in IPM from 2010 – 2012

site	Number of farmers	
	male	female
Southern Province	Magoye	90
	Sinzongwe	105
	Pemba	170
	Monzwe	118
Central province	Mumbwa	214
Eastern province	Chipata	177
	Petauke	78
subtotal	952	291
Grand total	1243	

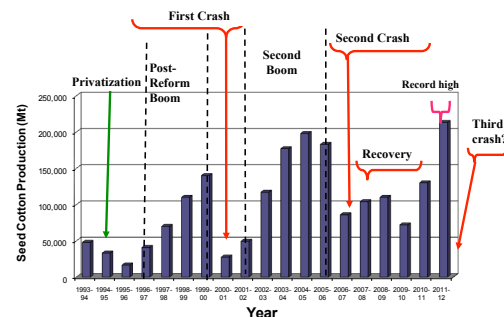
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Cotton production

- From privatization to date the cotton industry in Zambia has experiences 2 major crashes in cotton production (2000/01 and 2006/07)
- This has been caused by the poor cotton price.
- 2011/12 saw the highest production since privatization.

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Seed Cotton Production (MT) from1993-2012



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Performance of ginning companies during the 2011/12 farming season

COMPANY NAME	NO. OF FARMERS	HECTARES FINANCED	Average yield Kg/Ha	EXPECTED PURCHASE OF SEED (KG)	PURCHASED (KG)
Dunavant Zambia Limited	169,406	233,719	407	95,000,000	80,300,000
Cargill Zambia (2009) Limited	95,005	119,499	586	70,000,000	57,000,000
Continental Gineries/ Olam Zambia	53,525	78,358	383	30,000,000	26,000,000
Alliance Gineries Limited	49,791	55,870	412	23,000,000	20,100,000
Chipata Cotton & Cooking Oil	64,413	61,500	488	30,000,000	25,500,000
Agriculture Science & Tech. Co. Ltd.	6,395	7,157	719	5,145,979	4,000,000
Zhonghe Investment Corporation	406	530	1000	530,000	170,000
Vastina Cotton & Oil Company	700	667	750	500,000	100,000
	439,641	557,300	593	254,175,979	213,170,000

*The amount of purchased cotton is as of 31st July 2012

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