COTTON GUIDE TO SOURCING SUSTAINABLE COTTON UP

cottonupguide.org

Sourcing options - sustainability considerations

*The information in this table has been provided and verified by Textile Exchange (TE) and is republished in the CottonUP guide with TE's permission. Production data refers to 2016/17 and will be updated annually

	BCI Better Cotton Initiative BetterCotton.org	COTTON MADE IN AFRICA	FAIRTRADE	myBMP	Organic Production
GENERAL					
Objective	To transform the market by making Better Cotton a sustainable mainstream commodity.	Sustainable African Cotton for a global Textile Industry.	To make trade fair, empower small scale producers and workers and to foster sustainable livelihoods.	To produce high quality, high yielding fibre while sustaining the natural environment, people and regional communities.	Sustaining the health of soils, ecosystems and people.
Overview	BCI sets out to improve the sustainability of mainstream cotton production. Growers must meet minimum environmental and social requirements for their cotton to qualify as Better Cotton. Continuous improvement is a key element of the Assurance Programme.	Cotton made in Africa is an initiative of the Aid by Trade Foundation (AbTF) that helps African smallholder cotton farmers to improve their living conditions. Growers must meet minimum environmental and social requirements for their cotton to qualify as CmiA.	Fairtrade changes the way trade works through better prices, decent working conditions and a fairer deal for farmers. The Fairtrade standards require farmers to organize in democratic producer organizations and environmentally sound agricultural practices. It ensures the Fairtrade	The myBMP (Best Management Practices) program is the Australian cotton industry's environmental and social standard. To achieve full certification, growers must comply with over 400 checklist items across 10 modules including soil health, water management, natural assets, pest management, energy efficiency and worker health and safety.	Organic cotton is grown within a rotation system that builds soil fertility, protects biodiversity, and is grown without the use of any synthetic chemicals or GMOs. Growers must meet organic agricultural standards as set nationally, and by the importing country if export is carried out. Definition: http://www.ifoam.bio/en/ organic-landmarks/definition- organic-agriculture
PRODUCTION					
Producing Countries (2015/16 unless otherwise stated)	China, India, Israel, Madagascar, Mali, Mozambique, Pakistan, Senegal, South Africa, Tajikistan, Turkey, USA - PLUS Benchmarked standards in an additional 11 countries	Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Mozambique, Tanzania, Uganda, Zambia, Zimbabwe	Burkina Faso, India, Kyrgyzstan, Tajikistan, Senegal, Uganda	Australia	Benin, Brazil, Burkina Faso, China, Egypt, India, Isreal, Kyrgyzstan, Mali, Pakistan, Peru, Senegal, Tajikistan, Tanzania, Thailand, Turkey, Uganda, USA
Fiber Production 2015/16 (MT)	2,513,000	280,814	43,481	71,400	107,980
Market Share of Total Cotton Grown (2015/16)	11.93% (2015)	1.33%	0.21%	0.28%	0.51%
Growth in production (2014/15 - 2015/16)	28% increase	18% decrease	190% increase	79% increase	4% decrease
Projected growth in production	Target to account for 30% total cotton by 2020	Projected increase	Projected increase	Projected increase	Projected to increase (85,671 ha in-conversion 2015/16- 2017/18)
Yield (see accompanying "TE Position" notes)	No numeric data. Yield addressed in the standard.	Claim of 20% avg. yield increase	Yield increases recorded. Dependent on rainfall as most Fairtrade cotton is rainfed.	2235 kg/hectare	Claim of yield increases recorded in West Africa, India, Tajikistan and others. Dependent on rainfall in rainfed areas, alongside availability of other resources such as training. In-conversion farmers sometimes report a decline as soils stabilize to non-chemical conditions.
ENVIRONMENTAL - WATER					
Rainfed / Irrigated	Combination	100% rainfed	Predominantly rainfed (75% in 2015)	77% irrigated, 23% rainfed	75-80% rainfed
Water Management	A principle of Better Cotton is to use water efficiently and care for the availability of water.	CmiA farmers practice rainfed agriculture exclusively. This means they do not use any artificial irrigation.	Promotes efficient and sustainable use of water resources.	67 criteria related to water management, 42% water use efficiency gain industry wide.	Common Objectives and Requirements of Organic Standards (COROS): 1.2 Resource Management Organic management ensures that water resources are used sustainably.
Water Consumption (m3 / 1000kg fiber*) or best practices used to conserve water	No LCA data	1 (~100% reduction - LCA)	No LCA data	No LCA data 67 criteria related to water management	182 (91% reduction - LCA)
ENVIRONMENTAL - LAND / SOIL					
Soil fertility	Soil health addressed in standard. Management practices address erosion, soil and water contamination and enhancement of soil fertility.	Farmers receive training to improve agricultural practices, particularly soil and water conservation. Composting and manure are encouraged whilst crop rotation is mandatory.	Encourages improvement of soil fertility through composting, crop rotation & intercropping, and reduction/ prevention of soil erosion.	32 criteria related to soil health including: minimum tillage, crop rotation, soil testing, organic carbon, stubble retention, erosion and salinty prevention, fertilizer efficiency and plant monitoring.	Soil fertility is key to the success of organic cotton and farmers report increases in organic matter (OM). Soil fertility challenges vary from region to region. Studies by FiBL, FAO and Rodale Institute show soil fertility increases on organic farms. Common Objectives and Requirements of Organic Standards (COROS): 4.2 Soil Conservation and Crop Rotation, 4.3 Management of soil fertility.
Biodiversity	Practices to enhance biodiversity on site are encouraged. Biodiversity is addressed in the standard but no specific criteria.	Destruction of primary forest (or other designated resources protected by national or international law) for the purpose of cotton production is prohibited.	Ensures no negative impact on protected and HCV areas and must comply to national legislation on agricultural land use and carry out activities to protect and enhance biodiversity.	28 criteria related to sustainable landscapes, including: management of native vegetation and natural assets, improve habitat for biodiversity, assess and monitor native vegetation condition, stock exclusion.	Common Objectives and Requirements of Organic Standards (COROS): 1.1 Ecosystem Management: Organic management maintains or enhances biodiversity in crop and non-crop habitats on the farm holding. FAO and FiBL studies alongside others show increased biodiversity on organic farms.
Eutrophication (kg of phosphate- eq / 1000 kg fiber *)	No LCA data	20.4 (436% increase - LCA)	No LCA data	No LCA data	2.8 (26% reduction - LCA)
ENERGY / TECHNOLOGY					
Use of Hazardous Pesticides	Pesticides listed in Annex A and B of the Stockholm convention are forbidden. Pesticides classified WHO 1a and 1b and pesticides listed on annex III of the Rotterdam convention are to be phased out based on the availability of alternatives.	Promotes bio-intensive IPPM and excludes pesticides banned under the Stockholm Convention on Persistent Organic Pollutants (POPs), the WHO list of highly hazardous and hazardous pesticides, and pesticides listed in the Rotterdam Convention on PIC	Promotes IPM and organic practices. Prohibited Materials List is divided in two: The Red List includes materials that are prohibited, whilst the Amber List includes materials that are under evaluation for inclusion in the Red List.	80 criteria related to pesticide management. Over 90% decrease in pesticide use industry-wide. Practices include IPM, compulsory training, pupae busting, farm mapping, weather monitoring, safe storage and handling.	No use of synthetic pesticides.
Use of Synthetic Fertilizer	Soil health is addressed in standard but no specific criteria.	Excessive use of fertilizers not an issue in CmiA's growing regions; IPM, organic manure and compost pits encouraged.	Red and amber list of PML (based on POP, PIC, WHO, PAN 12)	13 standards relating to fertilizer efficiency including plant monitoring to assess requirements, pre and in- season nutrient budgets, monitoring and record keeping.	Common Objectives and Requirements of Organic Standards (COROS): Organic soil fertility management does not use synthetic fertilizers or fertilizers made soluble by chemical methods, e.g. superphosphates. Organic crop production does not use sodium (chilean) nitrate. Organic soil fertility management uses only crop fertility substances that are on (a) list(s) referenced by the standard. Such lists are based on lists and/or criteria in international organic standards.
GMOs Permitted?	Yes	No	No	Yes - regulated and carefully managed	No
Primary Energy Demand MJ / 1000 kg fiber *	No LCA data	No data	No LCA data	4000Mj / 1000kg of lint (on farm only) + 17 standards in myBMP addressing energy efficiency	5,800 (61% reduction - LCA)
Global Warming (kg of CO2-eq / 1000kg fiber*)	No LCA data	1,037 (42% reduction - LCA)	No LCA data	No LCA data	978 (46% reduction - LCA)
SOCIAL					

Social considerations / regulations	Production must comply with labor standards as set by the ILO.	Production must comply with labor standards as set by the ILO. CmiA standard includes farm as well as gin level criteria. Social project investment with AbTF and retail partners/ cotton companies.	Stringent criteria on freedom from discrimination, forced/ compulsory labor, child labor, freedom of association and collective bargaining. Operators in the supply chain must comply with ILO core conventions.	All Australian cotton growers subject to high standards by law for fair work conditions, pay, health and safety. myBMP includes 49 criteria related to human resources and worker health and safety including 35 standards required by Australian law.	To qualify as organic, production must comply with labor standards as set by the ILO.
Livelihoods	No price differential for farmers but incomes expected to improve. Volume-based fees feed into farmer capacity building programs.	No price differential for farmers but the volume-based fee paid by brands/retailers is reinvested in the Foundation's activities.	Farmers paid FT Minimum Price. Communities benefit from FT Premiums - spending decided democratically by cooperatives.	No price differential paid directly to farmers - farmers paid based on prevailing market price and quality	A price differential/sustainable price (i.e. meeting the cost of production and of ecosystem value addition) is expected to occur via market mechanisms and producer group policy, but is not a requirement of the standard. Optional/ partnership investment via NGOs, corporate investment, and PG investment goes back into the community.
ASSURANCE					
Verification / Certification (farm level)	Self-Assessment, 2nd Party and 3rd Party Verification.	Self-assessment and 3rd party certification on field and gin level.	Certification by 3rd party.	Self assessment, third party verification and certification + spot checks	Verification (annual); certification by 3rd party.
Chain of Custody (supply chain)	Physical segregation farm to gin; mass balance gin to retailer.	Mass Balance from spinning mill onward (hard identity from field to spinning mill); full traceability possible through Hard Identity Preserved (option).	Two models: (1) Classic - physically segregated and traceable, (2) Mass balance - physically traceable until spinner; CoC maintained through supply chain via online tool.	Physical segregation and tracing possible, unique barcode identifier on every bale tracking field to spinning mill	Identity Preserved; Certification of Supply Chain.
LCA available?	No	Yes - PE International (2014a)	No	No	Yes - PE International (2014b)
Product marketing / labeling	On-product Claims Framework.	In store marketing/ on product labeling (own label or CmiA hangtag).	On product and In store marketing. Third party certified (Fairtrade Mark).	In store marketing and on- product label (own label or Australian cotton swingtag)	In store marketing/ on product label. 3rd party certification label optional.
Consumer recognition	Consumer messaging began in 2015.	13% awareness among German consumers (measured Aug 2016).	Fairtrade mark widely understood and trusted by consumers.	Higher levels of awareness in Australia	Concept of organic widely understood, trusted and respected by consumers.
PRICE / QUALITY					
Cost implications/ impacts	No price differential at point of sourcing but membership and volume-based fees apply.	No membership fee but retailers/brands pay a volume-based fee and spinning mills pay a small annual registration fee.	Price differential (Fairtrade Minimum Price). Buyers also pay Fairtrade Premium for community investment.	No price differential at point of sourcing, no membership or licensing fees	Price differential paid to farmer/producer group.
Quality perception / implications	No known quality implications.	Historical perceptions of quality being an issue - but not so much these days.	Historical perceptions of quality being an issue - but not so much these days.	Consistently very high quality, amongst highest in the world across all parameters	Historical perceptions of quality being an issue - but not so much these days.