









*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 2017/18 and will be updated annually

cottonupguide.org						Organic		US COTTON TRUST PROTOCOL		Recycled											
		BCI Better Cotton Initiative		COTTON AFRICA		FAIRTRADE		myBMP		Organic Production		Organic OCS		Organic GOTS		USCTP		GRS		RCS	
GENERAL																					
Objective	To make global cotton production better for the people who produce it, better for the environment it grows in and better for the sector's future.	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.	Third party assurance on organic product claims.	Third party assurance on organic product claims, including environment and social responsibility in processing.	To drive continuous measurable improvement in key sustainability metrics.	The goal of the GRS is to increase use of Recycled materials in products and reduce/eliminate the harm caused by its production	The goal of the RCS is to increase the use of Recycled materials											
Overview	BCI works with cotton farmers all around the world, providing training and capacity building on more sustainable agricultural practices. Producers must meet the core requirements of the Better Cotton Principles and Criteria in order to become licensed to grow and sell their cotton as Better Cotton.	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 Minimum Price and Fairtrade Premium.	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 320 criteria 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	The Organic Content Standard (OCS) is a chain of custody standard that provides companies with a tool to verify that one or more specific input material is in a final product. It requires that each organization along the supply chain take sufficient steps to ensure that the integrity and identity of the input material is preserved.	The Global Organic Textile Standard (GOTS) is recognized as the world's leading processing standard for textiles made from organic fibers. It defines high-level environmental criteria along the entire organic textiles supply chain and requires compliance with social criteria as well.	US Cotton Trust Protocol sets a new standard that brings quantifiable and verifiable goals and measurement to the issue of sustainable cotton production that drives continuous improvement in key sustainability metrics. The Trust Protocol underpins and verifies US Cotton's leading sustainability through sophisticated data collection and independent third party verification.	The Global Recycle Standard (GRS) looks to track and trace recycled input materials all the way through the supply chain to the consumer. It looks to provide assurances to customers (both brand and consumer) that materials are in fact recycled and processed more sustainably, and reduce the harmful impacts of production to people and the environment.	The Recycled Content Standard (RCS) looks to track and trace recycled input materials all the way through the supply chain to the consumer. It looks to provide assurances to customers (both brand and consumer) that materials are in fact recycled and in the final product.											
PRODUCTION																					
Producing Countries (2017/18 unless otherwise stated)	In the 2017-18 cotton season, Better Cotton was produced in China, India, Israel, Kazakhstan, Madagascar, Mali, Mozambique*, Pakistan, South Africa, Tajikistan, Turkey and the USA. An additional 10 countries produced Better Cotton under BCI recognised equivalent standards - CmiA (Burkina Faso, Cameroon, Cote d'Ivoire, Ghana, Mozambique, Tanzania, Uganda and Zambia), myBMP (Australia) and ABRAPA (Brazil).	Cote d'Ivoire, Ghana, Cameroon, Zambia, Zimbabwe, Mozambique, Malawi, Tanzania, Uganda, Ethiopia	India, Kyrgyzstan, Tajikistan, Burkina Faso, Mali, Benin, Senegal, Uganda, Egypt	Australia	India, China, Kyrgyzstan, Turkey, Tajikistan, USA, Tanzania, Greece, Uganda, Benin, Burkina Faso, Peru, Egypt, Mali, Ethiopia, Brazil, Senegal, Argentina, Thailand	47 Countries with Certified units - top 10 are: Bangladesh, India, China, Turkey, South Korea, Japan, Pakistan, Portugal, Sri Lanka, Italy	64 Countries with certified units - top 10 are: India, Bangladesh, Turkey, Germany, Italy, China, Pakistan, Portugal, USA, South Korea.	USA	Certified facilities - https://textileexchange.org/integrity/	Certified facilities - https://textileexchange.org/integrity/											
Fiber Production 2017/18 (MT)	2,335,000 Standard: 2,806,500 All: 5	578,562	16,906	229,281	180,871	No data	No data	65,000 Mt (2019) 218,000 Mt (2020 projection)	No data	No data											
Market Share of Total Cotton Grown (2017/18)	8.76% BCI 10.53% BCI Benchmark	2.17%	0.06%	0.86%	0.68%	No data	No data	n/a	N/A	N/A											
Growth in production (2016/17 - 2017/18)	33.12% increase BCI 86.11% increase BCI Benchmark*	17% increase	6% decrease	66% increase	54% increase	No data	No data	n/a	Increase in those facilities that are already producing commercially e.g. Rebribra by Lenzing and Recover	Increase in those facilities that are already producing commercially e.g. Rebribra by Lenzing and Recover											
Projected growth in production	Projected increase	Projected increase	Projected increase	-55%	Projected to increase (44,394 ha in-transition in 2017/18)	No data	No data	get of 50% of US cotton (8m bales / 1.7m Mt) by 2020	Capacity increasing with various new technologies and plants coming online	Capacity increasing with various new technologies and plants coming online											
Yield (see accompanying "TE Position" notes)	BCI collects yield data at country-level. In the vast majority of cases, implementation of the Better Cotton Standard System leads to higher yields, but the measures of improvement vary. "For example, in the 2017-18 season, BCI Farmers in China had 14% higher yields and BCI Farmers in Pakistan had 15% higher yields than Comparison Farmers in the same geographic areas." Find the full results at bettercotton.org/about-better-cotton/farmer-results .	Claim of 20% average 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.			9kg/hectare (U.S. five-year average from 2015-2019)	N/A	N/A											
ENVIRONMENTAL - WATER																					
Rainfed / Irrigated	Combination	100% rainfed	Predominantly rainfed (75% in 2015)	77% irrigated, 23% rainfed	75-80% rainfed			64% rainfed	N/A	N/A											
Water Management	Water Stewardship is one of the seven Better Cotton Principles and Criteria. Management practices address water resources identification and mapping, soil moisture management, efficient irrigation practices, water quality, and participation in collective action to promote the sustainable use of water. For example, in the 2017-18 season, BCI Farmers in India used 10% less water than Comparison Farmers in the same geographic areas. Find the full results at bettercotton.org/about-better-cotton/farmer-results .	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.	Organic Standards require effective management of water resources. Increased soil organic matter increases resilience to flood and drought.			Principle: Water stewardship is promoted. Criteria: Maximize efficient use of natural rainfall, employ soil-health building practices such as cover crops and conservation tillage to optimize soil water infiltration and water-holding capacity. Where supplemental irrigation is needed, calibrate timing and amounts applied according to the crop needs. Promote measures to minimize impacts from runoff including vegetative buffers, grassed waterways, filter strips, riparian borders, and engineered structures.	C2.2 Water use, C2.2a The Certified Organization shall monitor and meet all relevant legal requirements related to water use. C2.2b Relevant, up-to-date permits shall be held and compliance maintained. C2.2c Measurement and record keeping of water usage shall be undertaken. on a monthly basis. C2.2d The Certified Organization shall set and meet targets for meaningful improvements in water use and review progress annually. Source: Textile Exchange Global Recycled Standard 4.0 2017	RCS does not stipulate requirements around the use of water in production processes.											

					Organic Production	Organic OCS	Organic GOTS	USCTP	GRS	RCS
Water Consumption (m3 / 1000kg fiber*) or best practices used to conserve water	No LCA data.	1 (~100% reduction - LCA)	No LCA data	0.5 m ³ /MT Irrigation Water Use Efficiency (DPL, 2019) 67 criteria related to water management		182 (88% reduction - LCA)		2,057 Irrigation water use efficiency (kg fiber/cubic meter) was improved 56% from 2000 to 2015 (Field to Market indicator)	No LCA data	No LCA data
ENVIRONMENTAL - LAND / SOIL										
Soil fertility	Soil Health is one the seven Better Cotton Principles and Criteria. Management practices address soil analysis and type identification, enhancement of soil structure and fertility, and nutrient cycling improvement.	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 salinity prevention, fertilizer efficiency and plant monitoring.	Effective management of soil fertility is at the heart of organic production, with requirements for crop rotation, soil conservation and soil management. Organic cotton 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.			Principle: Production practices that conserve and regenerate soil Criteria: Maintain healthy plants through nutrient management practices that minimize environmental concerns, conduct soil tests for primary nutrients and soil acidity (pH), apply fertilizer only as needed to replace nutrients removed from previous harvests. Practice the four R's of nutrient management by applying the right source, at the right rate, at the right time, and in the right ratio of primary nutrients to avoid eutrophication. Use application practices of all nutrients to minimize nutrient runoff into water bodies.	N/A	N/A
Biodiversity	Biodiversity and Land Use is one of the seven Better Cotton Principles and Criteria. Management practices address identifying and mapping biodiversity resources, identifying and restoring degraded areas, enhancing populations of beneficial insects, ensuring crop rotation and protecting riparian areas.	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.	Organic management maintains or enhances biodiversity in crop and noncrop habitats on farms. FAO and FiBL studies alongside others show increased biodiversity on organic farms.			Principle: Promote plant, animal and microorganism biodiversity and efficient use of land. Criteria: Employ practices that maximize agricultural ecosystems services through enhancing natural habitats and increasing biodiversity in and around agricultural landscapes. Use tools for assessing habitat potential to guide ecosystem enhancement of cotton fields and surrounding areas. Promote agronomic and cultural practices that enhance soil health and biodiversity. Retire unproductive land and convert to a use suitable for promoting biodiversity.	N/A	N/A
Eutrophication (kg of phosphate- eq / 1000 kg fiber *)	No LCA data.	20.4 (436% increase - LCA)	No LCA data	No LCA data		2.8 (64% reduction - LCA)		3.84 kg PO4 equivalent/1000kg fiber (Life Cycle Assessment of Cotton Fiber and Fabric LCA Cotton Incorporated 2012)	N/A	N/A
ENERGY / TECHNOLOGY										
Use of Hazardous Pesticides	Pesticides listed in Annex A and B of the Stockholm convention, Annexes of the Montreal Protocol, and Annex III of the Rotterdam convention are forbidden. Producers must phase-out active ingredients that are known or presumed to be highly or extremely hazardous, carcinogens, mutagens or reproductive toxicants.	Promotes bio-intensive IPPM and excludes pesticides banned under the Stockholm Convention on Persistent Organic Pollutants (POPs), the WHO list of highly hazardous 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 hazardous pesticides. There are slight variations between the different organic standards regarding the exact pesticides authorized and their conditions of use.			Principle: Protect cotton plants from harmful pests and minimize worker and environmental exposure to pesticides. Criteria: use of integrated pest management; use only of pesticides fully evaluated and approved by the appropriate U.S governmental agencies. Protect people animals and environment by observing use restrictions and risk mitigation measures as required by law. Protect people, animals and the environment through certified safety training, process controls, and restriction of pesticide handling to skilled personnel meeting a number of safe handling criteria.	N/A	N/A
Use of Synthetic Fertilizer	The use of fertilisers (organic and inorganic) is addressed in the Soil Health and Water Stewardship Principles and Criteria. Producers should develop a better understanding of, and have better control of, fertiliser use.	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 criteria relating to fertilizer efficiency including plant monitoring to assess requirements, pre and in- season nutrient budgets, monitoring and record keeping.	No. Organic production relies on crop rotation and natural inputs such as animal or green manures to build fertility.			Principle: Maintain healthy plants through nutrient management practices that minimize environmental emissions Criteria: Synthetic and naturally derived fertilizers are used in accordance with results of testing soil nutrient needs and applying at rates, timing, and placement in accord with principles of the 4 R's of nutrient management. Storage of all fertilizers from must prevent leaching and runoff. Application practices must minimize nutrient runoff into water bodies. Animal manure fertilizer should be used cautiously and avoid excess runoff.	N/A	N/A
GMOs Permitted?	Yes. BCI is 'technology neutral' with respect to GM cotton, and will neither encourage farmers to grow it, nor seek to restrict their access to it.	No	No	Yes - regulated and carefully managed	No			Yes	Potential for GMOs to enter supply chains through feedstock as a result of over 80% conventional cotton being genetically modified.	
Primary Energy Demand MJ / 1000 kg fiber *	No LCA data.	No data	No LCA data	4000MJ / 1000kg of lint (on farm only) + 17 criteria in myBMP addressing energy efficiency		5,800 (58% reduction - LCA)		13,800 MJ/ 1000kg raw fiber for 2015 U.S. cotton. (Source 2016 Field to Market National Indicators report).	Data varies on the different technologies used and different plants used to manufacture product	
Global Warming (kg of CO2-eq / 1000kg fiber*)	No LCA data.	1,037 (42% reduction - LCA)	No LCA data	No LCA data		978 (26% reduction - LCA)		1,300 (2016, Field to Market indicator)	No LCA data	No LCA data
SOCIAL										
Social considerations / regulations	The Better Cotton Standard is aligned with the International Labour Organisation (ILO) Decent Work agenda requirements on gender. Guidance on topics such as child labour, sanitation facilities and equal payment are also included in the Standard.	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.	N/A, as they are not required standards for developing countries relating to organic production.	OCS does not address social aspects of production beyond the integrity of the organic material. However, to qualify as organic, production must comply with labor standards as set by the ILO.	Minimum social criteria for GOTS is based on the key norms of the ILO, which must be met by all GOTS certified processors and manufacturers.	Principle: Promote decent work Criteria: USCTP requirements align with national legislation: Workers are treated fairly. Wages equal to or greater than required by law. Working hours comply with national and state law. Children are not exploited in any form. There is no forced, compulsory, bonded or trafficked labor. Workplace is kept safe by minimizing hazards. Discrimination of all forms is forbidden. Equal wages are paid to workers who perform the same job, regardless of gender, race, or ethnicity. Safe and hygienic sanitation is accessible. Potable drinking water and wash-water are provided. Workers have freedom of association. Abuse or harassment of any kind is not tolerated. Rules are enforced by state and national agencies and furthermore the USCTP will conduct random 3rd party audits to verify farmers follow the USCTP criteria	Production must comply with GSCP standards - human rights, health and safety and community asset protection are included within the audit process.	RCS has not auditing process therefore no consistent approach to these issues is being tackled within the standard.

					Organic Production	Organic OCS	Organic GOTS	USCTP	GRS	RCS
Livelihoods	No price differentials for farmers but yields and income expected to improve. The volume-based fee paid by BCI's Retailer and Brand Members is invested into farmer training and capacity building programmes. For example, in the 2017-18 season, BCI Farmers in India had 24% higher profits and BCI Farmers in China had 25% higher profits than Comparison Farmers in the same geographic areas. Find the full results at bettercotton.org/about-better-cotton/farmer-results .	No price differential for farmers but the volume-based fee paid by brands/retailers is reinvested in the Foundation's activities, e.g. farmer training, verification, community projects, etc.	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.			The marketplace will determine whether premiums are paid to farmers for assuring cotton meets requirements for the USCTP. Premiums may come through the price paid for fibre or indirectly through increased market access. Primary benefits to farmers are in more profitable and efficient production practices to provide yield benefits and/or cost reduction.	N/A	N/A
ASSURANCE										
Verification / Certification (farm level)	Self-assessment, Second-Party Credibility Checks by BCI and/or partners, Third-Party Verification by independent verifiers, and for large-farms in the US, a US Group Management model.	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.			Annual self assessment, 2nd & 3rd party verification.	Annual Audit Process (at Facility level); Certification by 3rd party	Self Declaration
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.			Physical segregation farm to spinning mill, supported by permanent Bale ID (PBI). Mass Balance from spinning mill to brand. Full traceability possible through physical segregation and isotope testing.	Identity Preserved; Certification of Supply Chain.	Identity Preserved; Supply Chain Self Declarations and Certification
LCA available?	BCI understands the sector's expectations for measurable indicators of improvement and impact, and is currently developing reliable indicators that offer value to members while ensuring the credibility and feasibility of the Better Cotton Standard System.	Yes - PE International (2014a)	No	No	Yes - PE International (2014b)			No	No	No
Product marketing / labeling	On-product and off-product communications. The BCI On-Product Mark can be used by BCI's Retailer and Brand Members. Strict criteria for use are set out in the Better Cotton 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.			Product claims can be made in line with participation guidance, including claims that sourcing USCTP cotton provides incentive for farmers to implement continuous improvement plans. On product logo available.	In store marketing/ on product label. 3rd party certification label optional.	In store marketing/ on product label. 3rd party certification label optional.
Consumer recognition	The introduction of the Better Cotton Claims Framework enabled BCI's Members to communicate their commitment to BCI and Better Cotton to their consumers.	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.			New program not yet marketed to consumers	Growing customer understanding of concept, but mark is growing in recognition B2B, and is being used B2C by certain brands	Growing customer understanding of concept, mark is not widely used or understood yet
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.			No price differential at point of sourcing but membership and volume-based fees apply.	Pricing is based on the type of recycling technology used and the quality of the final fibre needed; however certification of facilities and segregation through the supply chain and a relatively small supply of certified material can push prices up.	Pricing is based on the type of recycling technology used and the quality of the final fibre needed; however segregation through the supply chain and a relatively small supply of certified material can push prices up.
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.			US cotton is consistently trusted for quality. The detailed USDA quality classification of every US bale is linked to the permanent bale ID (PBI)	Quality depends on type of inputs, type of recycling and type of technology used - historically mechanical recycled cotton has had its issues however new technologies like 'Recover' have managed to solve these problems for most products. Colour can be impacted by recycling - limiting the amount of colours on mechanical recycling, and certain types of chemical recycling can not achieve the whitest whites.	Quality depends on type of inputs, type of recycling and type of technology used - historically mechanical recycled cotton has had its issues however new technologies like 'Recover' have managed to solve these problems for most products. Colour can be impacted by recycling - limiting the amount of colours on mechanical recycling, and certain types of chemical recycling can not achieve the whitest whites.

[1] Preferred Cotton Market share is calculated as a share of the program over the global aggregate cotton production reported by ICAC (source: ICAC Cotton World Statistics - May 2018 Update). As there are overlapping production between initiatives, the sum of market share indicated here will not amount to 100%. For a proportional breakdown of the initiatives please refer to Textile Exchange Preferred Fiber and Market Report 2018)

Pesticide use is under further review in many countries and evolving. As an example, the U.S. E.P.A. banned endosulfan after it was previously banned in other countries. This section allows each initiative to explain their positions.