

HAVE YOU
COTTONED ON YET?

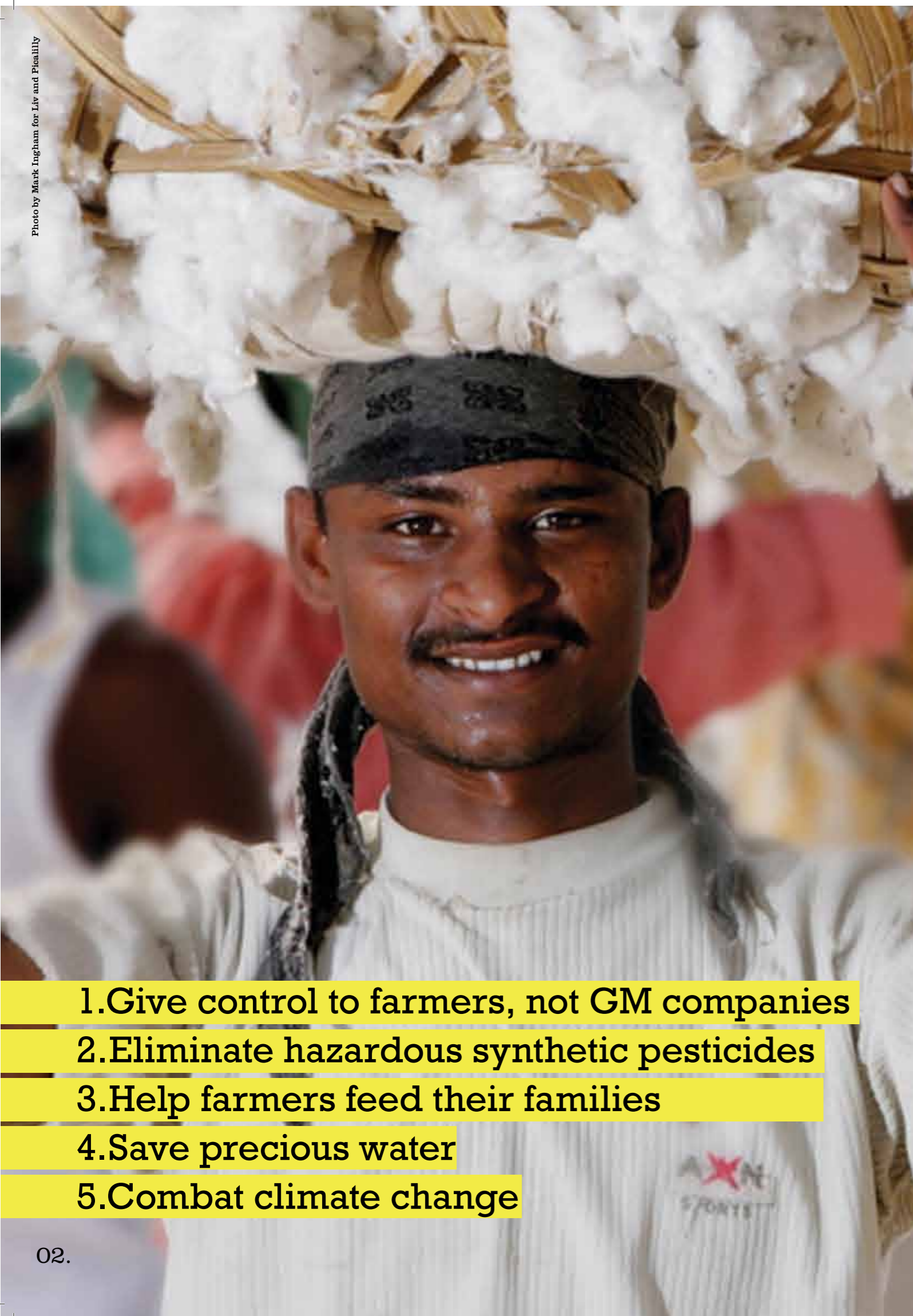
The Organic Cotton Initiative

Organic cotton delivers proven benefits
for people and the environment -
when it comes to making sustainability
claims you can trust, nothing beats it.

GOTS certified jeans by Monkee Genes

A joint Soil Association and Global Organic Textile Standard campaign





1. Give control to farmers, not GM companies

2. Eliminate hazardous synthetic pesticides

3. Help farmers feed their families

4. Save precious water

5. Combat climate change



There are 100million cotton farmers producing cotton in 80 countries worldwide

Demand for cotton increases every year but the price tag for its production is rarely seen in the shops, the damaging consequences of growing cotton are felt in the fields, by the farmers and families that produce it.

What does the cotton in your clothes say about you?

Despite an ever increasing consumer demand for organic cotton – Textile Exchange predict that global retail demand for organic cotton will increase by at least 10% in 2011-12 - some brands are doing nothing to address the consequences of cotton production, and others are opting for easier and less-effective sustainability schemes.

While some schemes provide an important step on the ladder to improving the impacts of cotton production, they do not go far enough. The majority of cotton production is still toxic, thirsty, and energy intensive. The rise of GM cotton is putting farmers' livelihoods and choices at risk.

Make a real impact

Organic cotton is proven to deliver benefits for people and the environment - when it comes to making trustworthy sustainability claims about cotton, nothing beats it.

Textile Exchange predict that global retail demand for organic cotton will increase by at least 10% in 2011-12.

Pull your cotton socks up

Millions of cotton farmers and billions of consumers want you to lead the way. Commit to organic to secure a safe and sustainable future for cotton.

This briefing shows why organic is the choice for people who are serious about sustainability.

1. Give control to farmers, not GM companies

Organic farmers don't have their choices controlled by GM companies

Bt cotton¹ is the only GM crop that has been widely commercialised in developing countries, but it is yet to prove its worth for the mainly small-scale farmers in these countries who are responsible for 75% of global cotton production.^{2,3} Touted by GM companies as a silver bullet against poverty and hunger, Bt cotton is proving to be neither.⁴

Bt cotton does not guarantee a good harvest or higher yield, in fact it can be more vulnerable to external pressures like drought and disease.⁵ This makes GM a risky option for farmers who cannot afford to spend more money on

seed varieties is getting less and less.^{13,14,15} Farmers can't control the quality and type of seeds they use, compromising yields and giving them no choice but to use GM seeds.

Organic cotton production never uses GM seed. The small-scale farmers who produce the majority of cotton need reliability, not high risks. Using low external inputs that are locally available, organic allows farmers to work within their limits and with their environment, in a sustainable way. Organic cotton puts choices in the farmer's hands.

GM company Monsanto now controls a staggering 95% of the cotton seed market in India.

the higher priced seed⁶, pesticides⁷ and fertilisers⁸ it demands. Farmers are gambling their livelihoods and getting into debt in the hope of higher returns.⁹

GM companies increasingly control cotton seed markets. GM company Monsanto now controls a staggering 95% of the cotton seed market in India, where 68% of organic cotton is grown.^{10,11,12} Consequently, research into and availability of non-GM

“The benefits that were assured from Bt cotton cultivation are not coming... Farmers have to use more pesticides and chemical fertilisers, as a result of which there has been an increase in input costs and reduction in profit margins leading to farmer's indebtedness and suicides.”

Basudeb Acharya, Chairman of the India's Parliamentary Standing Committee on Agriculture¹⁹

Freedom of choice?

“Just a few years back all the cotton grown here was non-GM. When the seed companies came they made sure none of the non-GM seeds were available to buy, so farmers were forced to convert to growing Bt cotton.

“The GM companies might claim that the yield has increased, but the fact remains that input costs have risen disproportionately. Here, it was only after GM cotton was introduced that the use of pesticides started, with Bt cotton you have to use a lot of fertilisers and chemicals. Every single day we see at least one of our farmers killing themselves because they unable to repay their debts. If all farmers are secure and happy as the Bt seed companies claim, then why are farmers killing themselves?”

Kusum Rao, an organic farmer from Adilabad District in India and Chairman of Chetna Organic Farmer Association

Could your cotton be GM cotton?

Organic (GOTS or OE)*	No
Fairtrade ¹⁶	No
Cotton Made in Africa ¹⁷	No
Better Cotton Initiative ¹⁸	Yes
Conventional Cotton	Yes

*Organic cotton production must be certified according to national and international regulations. Certification of the processing stage ensures organic content in final products: The Organic Exchange (OE) standards cover traceability of organic fibre (from 5-100% content). The Global Organic Textile Standard (GOTS) is even higher, ensuring traceability as well as strict criteria for ecological and socially responsible textile processing.



Clean up your act

The impacts of producing our clothes are felt beyond the cotton fields. Greenpeace's Dirty Laundry campaign brought to light the toxic water pollution resulting from the release of hazardous chemicals by the textile industry. These practices are posing serious and immediate threats to our precious ecosystems and human health.

20% of freshwater pollution comes from textile treatment and dyeing.³³



The Global Organic Textile Standard (GOTS) is the world's leading organic textile processing standard.

It ensures that textiles are truly organic at every stage of production - from ginning, through environmentally and socially responsible manufacturing up to labelling of the final product.

GOTS makes sure that:

- Inputs in processing such as dyes and inks comply with strict biodegradability and toxicity requirements
- Factories have functioning waste water treatment plants to protect local ecosystems and water supplies
- Products do not contain any allergenic, carcinogenic or toxic chemical residues
- Core International Labour Organisation (ILO) conventions must be met throughout manufacture and a social compliance management system must be set up

GOTS certifies thousands of textile businesses around the world and is fast becoming the accepted standard for truly organic textiles. In fact in the USA, where textile products labeled as 'organic' are legally required to be certified organic from production to processing, GOTS is an officially recognised standard.

To find out more visit www.global-standard.org

"Internationally recognised GOTS certification offers independent assurance to consumers that organic fibres have been processed in an environmentally and socially responsible way."

Marcus Bruegel, Technical Director, GOTS

"The textile industry has a huge supply chain and complex production processes spanning from where the original fibres are sourced all the way to where the products reach the hands of consumers. Organic cotton and natural fabrics are among the key ingredients companies should use to address their full environmental footprint, alongside urgently eliminating all releases of hazardous chemicals from the full life-cycle of their products and production processes in order to deliver toxic-free fashion."

Zeina AlHajj, Head of Agriculture and Toxic Campaigns at Greenpeace International



Sustainability claims you can trust

From farm to shop shelf, it's important that sustainability claims have credibility and traceability. Consumers want to make truly sustainable choices and brands need to be able to rely on what they say. 3rd party accreditation (required legally for organic production) gives brands and consumers the confidence to know that their claims and choices are trustworthy and making a real impact.

"3rd party accreditation ensures credibility in the market place and preserves customer trust – you can be sure that the change you claim to be making is really happening on the ground"

Anne Gillespie, Director of Industry Integrity, Textile Exchange

2. Eliminate hazardous synthetic pesticides

Organic cotton doesn't use dangerous pesticides, protecting farmers' lives and the environment

Cotton is a toxic crop. Occupying just 2.5% of agricultural land area, it uses 7% of the total amount of pesticides used in farming globally each year and 16% of all insecticides.^{20,21} In developing countries, cotton is thought to account for 50% of total pesticide use.²²

Pesticides put in peril the lives of women, men and children in cotton farming communities.²³

The pesticides used in cotton pollute freshwater lakes and rivers, contaminating drinking water sources and threatening precious ecosystems.³⁰

There is another way. As organic cotton farmers around the world demonstrate every day, cotton can be grown without pesticides. Pollution and poisonings are an unnecessary

Up to 77million cotton workers suffer poisoning from pesticides each year

Acute poisoning from pesticides is commonplace in cotton production; deaths from severe poisoning are widespread - up to 77 million cotton workers suffer poisoning from pesticides each year.^{24,25,26} Suffering is most severe in developing countries, where poverty makes people more vulnerable, either due to lack of understanding of the risk, illiteracy or insufficient protective clothing.²⁷

Pesticides don't just cost lives, they often land small scale farmers in debt too. Increasingly expensive, pesticides can make up 60% of the costs of cotton production, eating into diminishing returns and pushing farmers into debt.^{28,29}

The toxic impacts extend beyond the cotton fields and farming families.

consequence of cotton production. By eliminating all hazardous synthetic pesticides in its production, not just reducing them like other sustainable cotton schemes, organic cotton offers a healthy and sustainable farming future for farmers and their families. Organic takes the toxic impact out of producing cotton.³¹

“By removing toxic chemical pesticides from production, organic cotton empowers farmers - protecting the health of their land, families and wider community. Retailers should be putting organic cotton on our high streets, in doing so they will protect the lives and livelihoods of millions of farmers around the world.”

Juliette Williams, Campaign Director, Environmental Justice Foundation

Chetna Organic



Organic cotton dress by People Tree

*Organic
for a
healthier
future*

“It has been 5 years now since I decided to convert to organic cotton. I made this decision in 2001 because I had just suffered a miscarriage due to the use of pesticides. Organic cotton has given me more independence as a woman, because I receive a better income, and I am paid immediately after

the harvest. And more importantly, my children's health is no longer at risk.”

Evelyn Ate Kokale is an organic cotton farmer in Glazoué District, Benin³²

3. Help farmers feed their families

Organic cotton enables farmers to grow other crops for food and income

The number of hungry people in the world grows each year and most of the chronically hungry are small-scale farmers in the developing world.³⁴ Unfortunately, the majority of cotton farming does little to help farmers feed themselves or their families.

Cotton is normally grown as a 'monoculture' - a farming approach which involves the production of just

farmers can be left with nothing to fall back on. Because they just grow cotton, monoculture cotton farmers have to buy all their food, so they are vulnerable to price spikes and food shortages.³⁶

Organic cotton production improves food security for farmers and their communities.

“Research shows that organic agriculture is a good option for food security... and [is] more sustainable in the long term”

United Nations Conference of Trade and Development (UNCTAD)³⁸

one crop.³⁵ But relying on one crop is fraught with risk. Input costs are high, and returns can be low - a short growing season means small-scale cotton farmers rarely see sufficient or sustained returns. If the crop fails,

Organic principles require that farmers grow a diversity of crops to maintain healthy and fertile soils and fight off pests. These crops often double-up as a source of food, enabling farmers and their families to feed themselves all year round.

Any surplus food can be sold at local or regional markets, bringing extra income and improving the food security of cotton farmers' local communities.³⁷ Income diversification, from growing food or other crops, also helps insure organic farmers against crop failure, climate variability, price volatility and changes in market demand.

GOTS certified denim by BLUELU



Photo by Jörg Böhling, provided Remel AG



Food security

“With organic cotton farming, our food security is good; food production is improved by our crop rotation. He who grows organic cotton must also sow goussi (squash), cowpea or maize. We can eat the vegetables we grow without fear of pesticide poisoning. In organic cotton there is no cheating. The farmer gets what is due to him.

I would like to run for political office and campaign for organic to replace conventional cotton and so remove the risk of food poisoning and other diseases caused by pesticides.”

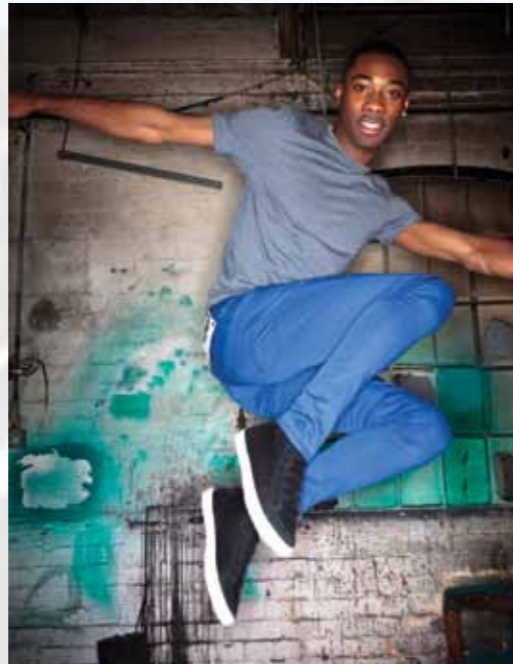
Attadé Gantoli is a producer from Agondji in the Department of Zou, Benin, Africa.³⁹

Think ahead

Cotton retailers can make sound investments by opting to take a long term view. Building relationships with suppliers and committing to purchase in advance benefits everyone; it secures farmers' income, helping farmers plan ahead and make investments to improve living standards and their farming practices, which in turn reduces the price of producing organic cotton.

The price of organic includes investments made by farmers who recognise the importance of protecting their environment. By maintaining soil fertility, preserving biodiversity, conserving water resources and using renewable resources, there are no hidden costs. Their return on investment is felt by people and the environment, now and in the future.

A low cotton price should leave you wondering – who is really paying the price? The farmer who could get paid less for their harvest than it costs them to produce it? Or the environment, degraded and polluted by fertilisers and pesticides used with only profit in mind? Perhaps the brand who risks their good reputation in hope of a good deal?



GOTS certified jeans by Monkee Genes

“Long term commitments eliminate risks for farmers and brands – it brings price stability – enabling both parties to plan ahead”

Anne Gillespie, Textile Exchange

“Jackpot has partnered up with Solidaridad and the Chetna Organic farmers for more than six years now. We listen closely to the needs of the farmers and lay the plans together. We provide loans and up-front purchase commitments. Farmers are able to invest and plan, allowing them to offer organic at more competitive prices. Everyone benefits.”

Maryam Azmayesh Terp, CSR Manager, Jackpot



Organic produces quality cotton

“In our eight years of working with organic cotton from Turkey and India, we have never had any issues with the quality or performance of the organic fibres. In fact, when

compared like-for-like, organic fibres consistently produce better quality yarns than conventional cotton.”
Mariusz Stochaj, Head of Product, Continental Clothing

4. Save precious water

Organic cotton uses less water, preserving a scarce and precious resource for the future

In some parts of the world cotton production is putting unsustainable pressure on our precious and vital water resources. One of the thirstiest crops we farm, cotton uses 11,000 litres of water on average for each kilogram of cotton produced.⁴⁰ Most cotton is irrigated, draining groundwater, lakes and rivers, threatening ecosystems, wildlife and water availability for other humans needs.⁴¹

Of all the water used in cotton production, up to a fifth could be used to try and dilute pollution.⁴²

Intensive use of artificial pesticides and fertilisers in non-organic cotton production means that they can drain into water systems. Pesticides used in cotton have frequently been found in rivers, lakes and streams of cotton producing countries across the world.⁴³ These chemicals pollute rivers and precious groundwater stores, upsetting fragile ecosystems and posing a toxic risk to wildlife and people.⁴⁴

Organic cotton saves water. 80% of organic production is rain fed rather than irrigated, so organic cotton preserves important groundwater stores.⁴⁵

What's more, organic practices require that cotton farmers keep their soils healthy – healthy soils are better at holding on to and soaking up water that comes from rain or irrigation, so organic soils make better use of water inputs and are more resilient in drought conditions.⁴⁶

Organic practices keep soils healthy so they are better at holding water and more resilient to drought conditions

By eliminating the use of synthetic pesticides and fertilisers, organic cotton keeps waterways and drinking water safe and clean. The water pollution impact of organic has been shown to be 98% less than non-organic cotton production.⁴⁷

“Our study shows that organic farming can significantly reduce the grey water footprint of cotton by avoiding the use of pesticides and fertilisers that pollute waterways when they runoff from farm fields.”

Ruth Mathews, Executive Director, Water Footprint Network⁴⁸

Water footprints & organic farming

In India, contamination of rivers and groundwater by pesticides and fertilisers from agriculture has been well documented.⁴⁹ In 2010 C&A funded a study conducted by the Water Footprint Network to compare pollution levels from organic and non-organic cotton farming in the country.⁵⁰ Sampling a total of 480 organic and non-organic cotton farms, their research found that organic cotton's

impact on water resources was dramatically less than on non-organic farms. The grey water footprint⁵¹ of non-organic farms was 43,433m³ per tonne of cotton, 98% more than the organic farms' grey water footprint of 733m³ per tonne. The strength of their findings led the researchers to conclude that “the results clearly favour a wider implementation of organic agriculture.”

5. Combat climate change

Organic cotton farming uses less energy and healthy organic soils store more CO₂

Cotton production will be one of climate change's many victims.⁵² Higher temperatures and extreme weather events are predicted to reduce yields and farmer incomes around the world.⁵³ Unless changes are made to reduce this impact and adapt to climate change then our ability to grow crops and the livelihoods of farmers around the world will be seriously compromised.

Of the 15kg CO₂e that is emitted in the life of a cotton T-shirt, 14% of these emissions are produced growing cotton.⁵⁴ High-input, intensive cotton farming uses a lot of energy; manufacturing fertilisers and pesticides to boost crops, using fuel to drive vehicles to spray them. 83% of manufactured nitrogen fertilisers spread on crops end up

nitrogen inputs, organic cotton growing produces up to 94% less greenhouse gas emissions.^{57 58 59} By maintaining their health, organic practices turn soils into a carbon 'sink', removing CO₂ from the atmosphere.⁶⁰ Organic soils soak up and hold more water so they can better cope with floods and drought.⁶¹

While the impacts of climate change are already being felt around the world, organic cotton farmers and their crops are more resilient to these impacts. Mixed cropping and low inputs also reduce the financial risks for farmers if one crop is wiped out by increasingly frequent extreme weather events.

"Organic agriculture not only enables ecosystems to better

By maintaining their health, organic practices turn soils into a carbon 'sink' removing CO₂ from the atmosphere

in the environment, releasing huge amounts of N₂O and contributing 42% of cotton's on-farm emissions.^{55 56}

Organic cotton farmers are doing their bit to combat climate change. By eliminating the use of manufactured fertilisers and pesticides and reducing

adjust to the effects of climate change, but also offers a major potential to reduce emissions of greenhouse gases"

Food and Agriculture Organisation of the United Nations⁶²

KY Tunstall wears EJF Climate Week Photo by ©Stephanie Sian Smith



Organic cotton production comes top

The gold standard for sustainable cotton production

Compared to non-organic cotton and entry level schemes such as CMiA and BCI, organic is recognised as the highest standard for sustainable cotton production. In Textile Exchange's continuum of sustainable cotton, organic is top because it delivers the highest environmental and socio-economic benefits, and the production standards are independently certified.

Fairtrade organic cotton provides an added guarantee that farmers have received a price that covers the minimum cost of production, and similarly requires independent verification of production standards - 19% of Fairtrade cotton is organically produced.⁶³

What about the rest of the cotton supply chain?

It's also important to consider the manufacturing process of products when making organic claims. OE certified products are made with organic cotton which has been traced through the supply chain. A step further is GOTS certified products which have been traced through the supply chain and each processing stage has been certified against strict social and environmental criteria.



"Consumers can be sure that a product carrying the GOTS 'organic' symbol is not only produced with a minimum of 95% organic fibre content but also processed to strict environmental and social criteria" Claudia Kersten Marketing Director, GOTS.

Cotton on

Brands and retailers It's time to take your consumers and sustainability seriously. If you want to lead the way in sustainable cotton commit to organic cotton production and processing. Cotton on at www.cottonedon.org

Public Now you know the impacts of non-organic cotton and the benefits that organic production and processing can bring. Tell brands you've cottoned on at www.cottonedon.org – and choose organic cotton.

Organisations

We want to make your voice heard. Tell the public and retailers why you support organic cotton at www.cottonedon.org

Choose organic cotton



The Global Organic Textile Standard (GOTS) is recognised as the leading processing standard for textiles made from organic fibres worldwide. It defines high level environmental criteria along the entire supply chain of organic textiles and requires compliance with social criteria as well. Independent third party certification is required for the whole supply chain. It enables legitimate 'organic' claims to be made on final products. Find out more at: www.global-standard.org



Organic Exchange is a respected standard covering the traceability of organically grown fibre through the supply chain. It is a chain of custody standard only, and does not apply social or environmental requirements on processors. Independent third party certification is required for the whole supply chain. It enables legitimate 'Organically Grown cotton' claims to be made on final products. For more information visit: www.textileexchange.org

The organic cotton initiative is a joint campaign by Soil Association and GOTS, communicating the benefits of organic cotton for people and the environment, and calling on brands, consumers and organisations to choose organic.

Visit www.cottonedon.org to find out more and show your support for organic cotton.

Author Amy Leech, Soil Association

Acknowledgements

With many thanks to Georgina Thomas of **Soil Association Certification** and Sarah Compson of **Soil Association** for their impetus and guidance and to Claudia Kersten of **GOTS** for her expert advice regarding processing aspects. Thanks must also go to Liesl Truscott of **Textile Exchange**, and **Simon Ferrigno** for providing information and advice. We are also grateful to the many contributors to this briefing: **EJF, PAN UK, Cotton Connect, C&A, The Water Footprint Network, Greenpeace, Continental Clothing, Seasalt, Remei, Jackpot, People Tree, Monkee Genes, Liv, BLUBLU** and **Textile Exchange**. Special thanks go to **Chetna Organic** for their help and valuable contributions.

References

- ¹ Cotton varieties genetically engineered to produce an insecticidal toxin
- ² Glover, D. (2009) Undying promise: Agricultural Biotechnology's Pro-poor Narrative, Ten Years On. STEPS Working Paper 15. (<http://steps-centre.org/wpsite/wp-content/uploads/STEPSsumBtCotton.pdf>)
- ³ Baffes, J. (2003) Cotton and developing countries: A Case Study in Policy Incoherence. World Bank. (http://www.wds.worldbank.org/servert/WDSContentServer/TW3PITB/2005/04/19/000090341_20050419151909/Rendered/PDF/320960TradeNote10.pdf)
- ⁴ Glover, D. (2009) Undying promise: Agricultural Biotechnology's Pro-poor Narrative, Ten Years On. (<http://steps-centre.org/wpsite/wp-content/uploads/STEPSsumBtCotton.pdf>)
- ⁵ Glover, D. (2010) Is Bt Cotton a Pro-poor Technology? A Review and Critique of the Empirical Record. Journal of Agrarian Change, Vol 10, No. 4, pp. 482-509
- ⁶ Traidcraft (2011) Seeds of success: The importance of seed security for small cotton farmers. (<http://www.traidcraft.co.uk/Resources/Traidcraft/Documents/PDF/tx/Seeds%20of%20success%20final.pdf>)
- ⁷ Kranthi, K.R., Venugopalan, M.V., Sabesh, M., Yadav, M.S. (2011) CICR Vision 2030. Central Institute for Cotton Research. Available at: www.cicr.org.in
- ⁸ Ibid
- ⁹ Glover, D. (2010) Is Bt Cotton a Pro-poor Technology? A Review and Critique of the Empirical Record.
- ¹⁰ Traidcraft (2011) Seeds of success: The importance of seed security for small cotton farmers.
- ¹¹ Navdanya International (2011) A Global Citizens Report on the State of GMOs: Synthesis Report. p.25
- ¹² Textile Exchange (2012) Farm & Fiber Report 2010-2011. Available at: www.farmhub.textileexchange.org
- ¹³ Traidcraft (2011) White Gold? Traidcraft briefing paper. Available at: www.traidcraft.co.uk
- ¹⁴ Dharwad Declaration (21 June, 2011) Disappearing non-GM cotton – ways forward to maintain diversity, increase availability and ensure quality of non-GM cotton seed. (http://www.fbi.org/fileadmin/documents/en/news/2011/pr_india110706_DharwadDeclaration.pdf)
- ¹⁵ Naranjan, N. (2011) Crisis and Solutions – The Non-GMO cotton seed issue in India. In Textile Exchange Farm Engagement Newsletter. (http://farmhub.textileexchange.org/upload/newsletters/english/Textile%20Exchange%20Newsletter_July%202011.pdf)
- ¹⁶ Fairtrade Standards prohibits the use of GMO, including seeds and planting stock, for all Fairtrade producers. The use of GMO materials is checked as part of the audit process, carried out by 3rd party and ISO 65 accredited certifier FLO-CERT.
- ¹⁷ The use of genetically modified seeds is one of the exclusion criteria included in the Cotton made in Africa Standards (exclusion criteria No1). See www.cotton-made-in-africa.com.
- ¹⁸ BCI has adopted a position of being 'technology neutral' with respect to GM cotton.
- ¹⁹ Acharia, B (2012) Genetically Modified crops no panacea for food security. Online article in The Hindu, August 12 (<http://www.thehindu.com/opinion/interview/article3800463.gce>) Accessed on 29 Aug 2012.
- ²⁰ United Nations Food and Agriculture Organisation (2005) FAOSTAT (<http://faostat.org>)
- ²¹ International Cotton Advisory Committee (2008) An interpretative study on: Pesticide use in cotton in Australia, Brazil, India, Turkey and the USA. The Expert Panel on Social, Environmental and Economic Performance of Cotton Production (SEEP) (http://iacac.org/sep/documents/reports/2010_interpretative_summary.pdf)
- ²² Caldas, T (1997) Organic cotton: not just a matter of fibre. IATP Organic Cotton Monitor 3:3.
- ²³ PAN UK (2001) Cotton pesticides cause more deaths in Benin. Pesticides News No.52, June 2001, pp.12-14. (<http://www.pan-uk.org/pestnews/Issue/pn52/pn52p12.htm>)
- ²⁴ EJF (2007) The Deadly Chemicals in Cotton. Environmental Justice Foundation in collaboration with Pesticide Action Network UK. (http://www.ejffoundation.org/pdf/the_deadly_chemicals_in_cotton.pdf)
- ²⁵ Williamson, S (2003) The Dependency Syndrome: Pesticide use by African smallholders. PAN UK: London.
- ²⁶ EJF (2007) The Deadly Chemicals in Cotton.
- ²⁷ Ferrigno, S (2012) An Insider's Guide to: Cotton & Sustainability. p.41.
- ²⁸ Williamson, S (2003) The Dependency Syndrome: Pesticide use by African smallholders.
- ²⁹ PAN UK (2007) The Chemical Trap.
- ³⁰ EJF (2007) The Deadly Chemicals in Cotton.
- ³¹ Allwood, J. M., Luarsen, S, E and Bocken, N, M, P. (2006) Well dressed? The present and future sustainability of clothing and textiles in the United Kingdom. University of Cambridge Institute for Manufacturing. (http://www.ifm.eng.cam.ac.uk/uploads/Resources/Reports/UK_textiles.pdf)
- ³² From PAN UK, Organic cotton report Benin, forthcoming 2012
- ³³ Raybin, A (2009) Water pollution and textiles industry. Airdye blog, 30 September. Available at: <http://blog.airdye.com/goodforbusiness/2009/09/30/water-pollution-and-the-textile-industry/> [Accessed 5 July 2012]
- ³⁴ United Nations (2008) Organic agriculture and food security in Africa. UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development. (http://unctad.org/en/docs/ditcted200715_en.pdf)
- ³⁵ Truscott, L. (2012) What's organic cotton got to do with feeding the world? Textile Exchange blog. Available at: <http://textileexchange.org/blog/what%E2%80%99s-organic-cotton-got-to-do-feeding-world> [Accessed 12 July]
- ³⁶ PAN UK (2007) The Chemical Trap, Stories from African Fields. (<https://secure.virtuality.net/panukcom/PDFs/album.pdf>)
- ³⁷ Truscott, L., Aranda, D., Nagarajan, P., Tovignan, S. and Travaglini, A. (2009) A snapshot of Crop Diversification in Organic Cotton Farms. Organic Exchange. (<http://farmhub.textileexchange.org/upload/library/Farm%20reports/Crop%20Diversification.pdf>)
- ³⁸ UNCTAD (2009) Sustaining African Agriculture: Organic Production. Policy Briefs, No.6, Rev.1. (http://unctad.org/en/docs/pressph20091rev1_en.pdf)
- ³⁹ From PAN UK, Organic cotton report Benin, forthcoming 2012
- ⁴⁰ Chapagan, A. K., Hoekstra, A. Y., Savenije, H, H, G and Gautam, R. (2005) The water footprint of cotton consumption. Value of Water, Research Report Series No.18
- ⁴¹ Soth, J (1999) The impact of cotton on freshwater resources and ecosystems: A preliminary synthesis. C. Grasser and R. Salemo, eds. World Wildlife Fund. (http://awsassets.panda.org/downloads/impact_long.pdf)
- ⁴² Chapagan et al (2005) The water footprint of cotton consumption.
- ⁴³ EJF (2007) The Deadly Chemicals in Cotton.
- ⁴⁴ Soth, J (1999) The impact of cotton of freshwater resources and ecosystems.
- ⁴⁵ Textile Exchange. Water Footprinting. Available at: <http://farmhub.textileexchange.org/learning-zone/all-about-organic-cotton/environmental-impacts-water> [Accessed on 7 July 2012]
- ⁴⁶ Niggli, U., Slabe, A., Schmid, O., Halberg, N., and Schlüter, M. (2008) Vision for and Organic Food and Farming Research Agenda to 2025: Organic Knowledge for the future. Technology Platform Organics. (http://www.tporganics.eu/upload/TPOrganics_VisionResearchAgenda.pdf)
- ⁴⁷ Torres, E, Z., Zeng, Z., Hoekstra, A, Y. (2011) Grey water footprint as an indicator of levels of water pollution in the production of organic vs conventional cotton in India. A study in collaboration with C&A, Water Footprint Network and Cotton Connect. Unpublished.
- ⁴⁸ To find out more about Water Footprint Network see www.waterfootprint.org
- ⁴⁹ Ibid
- ⁵⁰ Ibid
- ⁵¹ "The volume of freshwater that is required to assimilate the load of pollutants based on natural background concentrations and existing ambient water quality standards" from Hoekstra et al (2011) The Water Footprint Assessment Manual: Setting the global standard, Earthscan, London, UK.
- ⁵² International Trade Centre (2011) Cotton and climate change: impacts and options to mitigate and adapt. Technical paper (www.intracen.org/WorkArea/DownloadAsset.aspx?id=51490)
- ⁵³ Ibid
- ⁵⁴ The Carbon Trust (2011) International Carbon Flows - Clothing. (<http://www.carbontrust.com/media/38358/ctc793-international-carbon-flows-clothing.pdf>)
- ⁵⁵ Erisman, J, W., Sutton, M, A., Galloway, J., Klimont, Z., Winiwarter, W. (2008) How a century of ammonia synthesis changed the world. Nature Geoscience, 1, pp. 636-639.
- ⁵⁶ Soth, J. (2009) Organic cotton and climate change. Helvetas presentation to World Congress on Organic Cotton, Switzerland, September 2009. (<http://www.organicandfair.org/otce/Events/Documentation/WCOCC.php>)
- ⁵⁷ The Carbon Trust (2011) International Carbon Flows - Clothing
- ⁵⁸ Pollheimer, D, L (2006) Switcher Climate Project: CO2 -neutral T-Shirt. Report Preliminary Study (Draft Version) ECOS.
- ⁵⁹ Soth, J (2009) Organic cotton and climate change.
- ⁶⁰ Robertson, J.P., Paul, E.A., Harwood, R.R. (2000) Greenhouse gases in intensive agriculture: contributions of individual gases to the radiative forcing of the atmosphere. Science, 289, pp.192-1925.
- ⁶¹ Bot, A., Benites, J. (2005) The importance of soil organic matter: Key to resistant soil and sustained food production. FAO. (<ftp://ftp.fao.org/agl/agll/docs/sb80e.pdf>)
- ⁶² Food and Agriculture Organisation of the United Nations (2002) Organic agriculture, environment and food security. Scalabba, N, E and Hattam, C. Eds. Environment and Natural Resources Service Sustainable Development Department. (<http://www.fao.org/docrep/005/y4137e/y4137e00.htm>)
- ⁶³ Fairtrade (2011) Annual Report 2011-12: For producers, with producers. (http://www.fairtrade.net/fileadmin/user_upload/content/2009/resources/2011-12_AnnualReport_web_version_small_FairtradeInternational.pdf)

All photos are for illustrative purposes and are not the people being quoted. Copyright in all campaign material is vested in both Soil Association and GOTS jointly and is licensed under Creative Commons license by-nc-sa



Organic means?

Organic means that something has been produced according to comprehensive standards that are verified by independent certification bodies. It is the most reliable, transparent and rigorous system available across the globe for ensuring sustainable production.

Organic farming uses traditional and new scientific knowledge to grow crops in a way that develops healthy, fertile soil, conserves biodiversity and protects natural resources - minimising the use of non-renewable and off-farm inputs.

True sustainability isn't about tinkering around the edges. It means making the whole production system work with our resources, environment and people in a way that allows cotton farming and processing and the people involved in it to prosper, for many years to come.