



TextileExchange

Creating Material Change

COTTON BRIEFINGS 2011

Organic by Choice



COTTON FOR THE 21ST CENTURY
An Introduction to organic cotton

ORGANIC COTTON: AN INTRODUCTION

Historically, organic cotton began as the initiative of social entrepreneurs, farmers and NGOs responding to problems of misuse and overuse of pesticides and to social problems caused by production practices, low prices and farmer debt. Since the 1980s there has been a steady increase in the availability of certified organic cotton textiles. Around five years ago, organic cotton production started to expand significantly but still only made up 0.1 percent of total global cotton fiber production. Five years later organic cotton now represents 1.1 percent of global production. This is a growth of over 500 percent since 2005! Now organic cotton is an integral part of CSR strategies for many brands and retailers globally not to mention firmly established in the market as an ethical fashion choice for aware consumers¹.

What is Organic Cotton? Organic cotton is cotton that is produced, and certified, according to organic agriculture standards². Organic agricultural practices may vary slightly from country to country but common to all is the prohibition of the use of toxic and persistent synthetic agrichemicals (pesticides and fertilizers) and genetically modified seeds. Organic cotton is generally grown as part of a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic cotton production combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved³.

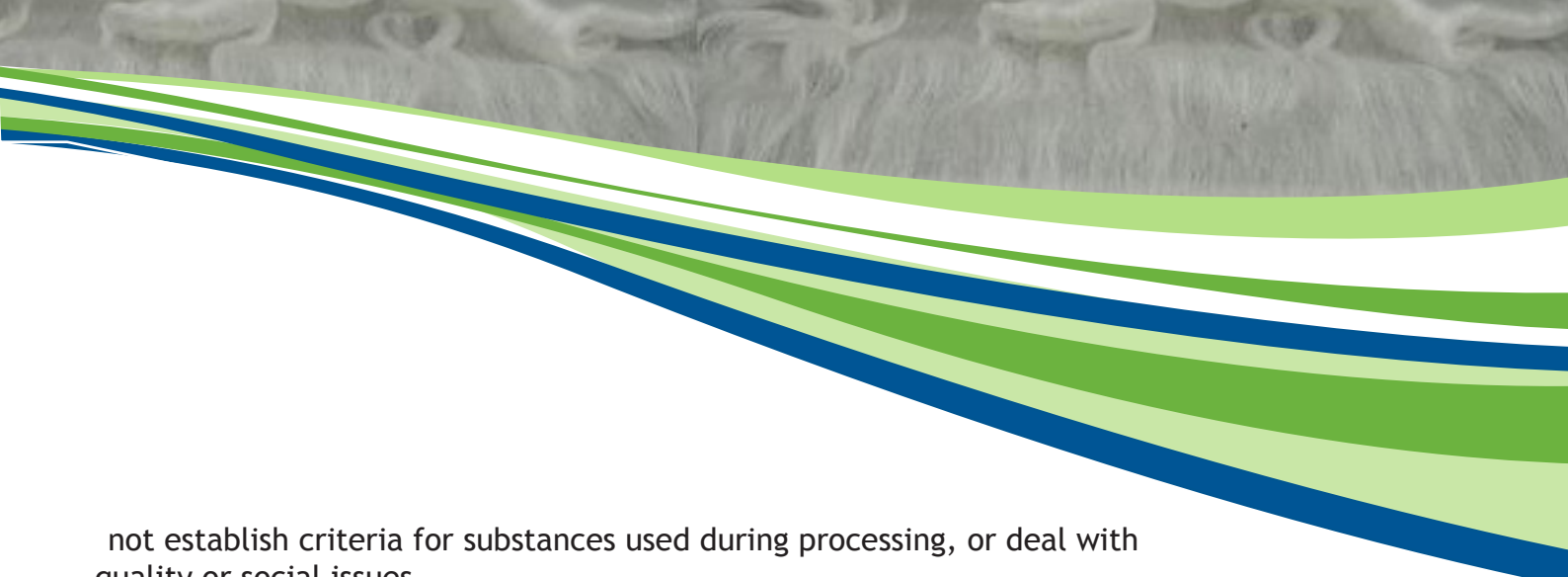
If cotton is to be sold as organic, it requires a third party certification from independent, accredited certification agencies. These kind of certification procedures lead to additional costs, but ensure the integrity of the standard compliance and thereby justify a price premium for the farmer and also in the final market. Further in the processing chain, care must be taken not only to separate organic cotton from conventional cotton, but also to ensure environmentally-friendly processing. However, organic cotton can also be processed conventionally and the textile end-product can be sold as made from organic cotton.

Organic Cotton Certification: The benefits of organic cotton are undermined if there is any chance that a product being sold as 'organic' is not truly from organically farmed fiber; then not only does the seller face legal and public relations risk, but there are no benefits going to the organic farmers. Certification is mutually beneficial for everyone involved in an organic cotton supply chain to ensure integrity in their processing and labeling.

Organic Farm Standards: The national laws governing organic production are EEC organic Regulation 834/2007, USDA NOP and JAS.

Processing Certification: Processing standards are when a 3rd party verifies the inputs and outputs of a facility to ensure the organic cotton content and proper handling while turning cotton fiber into clothing.

Fiber claims: These refer to the organic fiber content of your product and track the flow from the farm through to the finished product. These claims may be backed up through the OE 100 Standard or OE Blended Standard or proper tracking of the organic fiber flow. This standard does



not establish criteria for substances used during processing, or deal with quality or social issues.

Product claims: These refer to how the product was manufactured or processed, as well as the origin of the fiber. Standards such as the Global Organic Textile Standard (GOTS) stipulate that chemical inputs, dyestuffs and auxiliaries must meet certain environmental and toxicological criteria.

There are additional standards for textile processing that do not require the use of organic fiber, but can be used in conjunction with the OE standards or GOTS. For example, the EU Flower eco-label for textiles and Oeko-Tex 100 have guidelines that are controlled by independent testing organizations to ensure low levels of chemical residues in end-products².

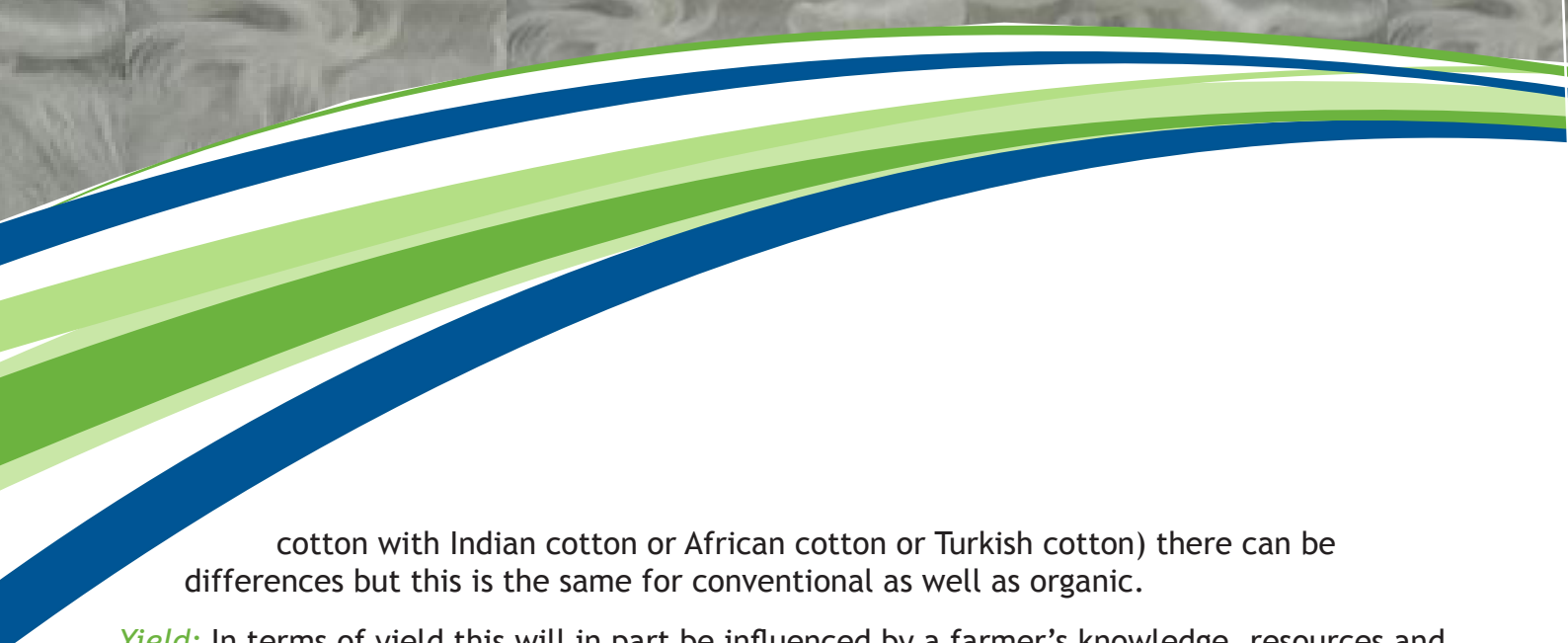
Sustainable attributes: Organic farming aims to create self-stabilizing agro-ecosystems with the help of suitable crop rotations, mixed cropping systems, choice of adapted varieties, and application of organic fertilizers and manures. Thus the organic production system tries to minimize external inputs and to make use of farm-own resources (e.g. green manures, biomass, organic fertilizers, botanical preparations). As a result of these combined production practices organic agriculture strives to realize the following ecological and socio-economic benefits:

- Less soil and water contamination;
- Increase of soil fertility and biodiversity;
- Less health hazards for farmers and consumers;
- Contribution to the mitigation of climate change by avoiding energy intensive mineral fertilizers and therefore minimizing the emission of the green house gas N₂O from fields and increase of soil organic matter contents;
- Increase of farmers' income due to organic premiums and reduced input costs;
- Reduced vulnerability of farmers' livelihoods:
 - by avoiding debts for the purchase of external inputs;
 - by diversifying the farm through crop rotation and intercropping^{3, 4}

Quality: The quality of organic cotton varies to the same extent that the quality of conventional cotton will vary (which in turn is likely to affect price). Cotton fiber quality (organic or otherwise) has several influencing factors. One of the primary factors is weather. The quality of cotton will also depend upon the cotton species/variety, location and growing conditions, environmental and climatic variables, and the expertise and resources of the growers.

Fiber length: Fiber length is determined not only by the variety, but also by the amount of 'heat-units' - (the degree of temperature) - so the more heat units - the longer the staple. Weather also impacts micronaire (i.e. the maturity and fineness).

Comparing conventional cotton to organic cotton: Since geography and weather have such a significant impact on quality, when comparing fiber from the same geographic area quality is very similar. However, when comparing fiber from different growing regions (e.g. Egyptian



cotton with Indian cotton or African cotton or Turkish cotton) there can be differences but this is the same for conventional as well as organic.

Yield: In terms of yield this will in part be influenced by a farmer's knowledge, resources and access to support via extension services. Since many organic 'projects' are in resource poor areas (where organic starts off as 'default' rather than 'design') composting, rotation planting and other important organic techniques need time to get established this will certainly impact quality and yield. However, for mature, established organic cotton farming systems, that have been using sound organic production principles, research shows that yields (volume) of organic can be higher than their conventional counterparts⁵.


How quality is determined: The quality of the cotton fiber is determined by three factors; the color of ginned cotton, purity (the absence of foreign matter) and quality of the ginning process, and the length of fibers. For cotton textiles, whilst it is fundamentally important that quality of the original fiber is good, quality issues can also arise during the spinning, knitting and dyeing phases of textile production.

End use: In general, end use is the same as 'non-organic' cotton. Textile products popularly available in organic cotton include: baby and children's wear, men and women's wear, intimate wear/underwear, sportswear, bathroom and bedroom products (sheets, towels, nightwear and so on). Organic cotton can also be found in health and personal hygiene products (facial care, feminine hygiene and baby diapers, etc).

As fashion designers (and students) become more aware of environmental sustainability, social issues in textile production and implications for the textile industry, more exciting and fashionable products emerge. 'Ethical' or 'sustainable' textile production is now seen as part of innovative design criteria and of growing importance to the consumer.

Availability: Organic cotton is currently grown in 23 countries. Most production is taking place in India, Syria, China, Turkey, Texas USA, Tanzania and Uganda; although countries in West Africa, Latin America and the Middle East are also well-established organic cotton producers. Some organic cotton producers are also certified to fairtrade standards (where possible); particularly in West Africa and Central - South East Asia¹.

Market: Organic cotton, whilst a niche market in many respects is a growing concern for consumers - particularly the 'ethical shopper'. Markets tend to be more concentrated in the UK, Europe, the US, Canada, Japan and Australia but expanding into emerging economies such as India. The global market share has gone from a little over 1 Billion USD to around 4.3 Billion USD in 2009. Organic cotton clothing and other products can be found in the high street, department stores, and online. A number of Brands have 100 percent organic cotton products or they may be blending with organic cotton yarn as they build capacity. There are also a growing number of designers/brands building entire collections using organic cotton and other sustainable



materials or are on planned expansion strategies. Retailers/brands are also use ‘ethical shopping websites’ to reach out to consumers wishing to purchase organic cotton products but not sure where to look or are not conveniently close to an outlet⁶.

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