# **ORGANIC COTTON**

## A fiber classification guide







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## SUMMARY

The "Organic Cotton: A Fiber Classification Guide" is an easy-to-use tool to support organizations looking to source organic cotton. From mass market to luxury products, the scope of quality of organic cotton can meet virtually all needs. The challenge is knowing what to look for and where to look.

Because the organic cotton market has been quite fragmented and only makes up approximately .5% of the total cotton supply, it is often difficult for companies to find what they need in terms of organic cotton sourcing. This guide aims to address these challenges and offer practical knowledge to companies so that they are able to source their organic cotton in a more efficient and informed way. In short, it locates organic cotton fiber around the world and classifies it in terms of its fiber characteristics and end-product suitability.

Where conventional cotton is concerned, the properties, characteristics, and quality of the cotton can vary for a number of reasons, such as species and seed type, geography, and environmental conditions. Harvesting techniques and quality control can also have an effect on cotton's properties.

Organic cotton has the same physical properties and characteristics as conventional cotton. There are no differences in the use, handfeel, or in any of the ways cotton can be proceessed or used. However, very significant differences can lie in the sustainability benefits and impacts associated with organic agriculture and its production systems.

#### TO HELP IMPROVE SOURCING AND DECISION-MAKING THIS COMPREHENSIVE GUIDE PROVIDES:

- A fiber classification global map indicating fiber lengths, average micronaire, and average yarn count produced by each organic cotton producing country.
- A detailed classification table providing further information on the supply volume, product suitability, yarn type and other characteristics.
- A special focus on India since India accounts for around 70% of the global organic cotton supply. This map focuses in on the differences in fiber characteristics available from the diverse organic cotton producing states of India.
- A luxury fiber classification map which "zooms in" to locate organic cotton suitable for producing luxury products. Additionally, there is a summary of the varieties traditionally grown for the luxury market and how the definition of "quality" is evolving to also reflect sustainability attributes.
- A supplier directory including contact details of growers and suppliers of long and extra long staple organic cotton suitable for the luxury end of the market.
- An introduction to the technical terminology used to describe cotton fiber, yarn quality and spinning methods.

Overall, sourcing organic cotton does not need to be a complicated process. With this guide, Kering and the Textile Exchange hope to lift some of the burden off of sourcing organic cotton. The aim is that, through easing sourcing challenges for organic cotton, this guide will enable more companies to uptake more organic cotton, thereby leading to a virtuous cycle, resulting in increased organic cotton supply and usage in products. Ultimately, this will also create more sustainable cotton supply chains for farmers and for the good of the environment.

Please note that this resource is intended as a guide only and is not an official classification of organic cotton fiber.

## QUICK GUIDE AND TERMINOLOGY

### **Cotton Species**<sup>1</sup>

There are four species of cultivated cotton, each with its own characteristics and product suitability.

Table 2: Cott	on Profile	and Proc	duct Suita	bility	
Cotton	Fiber Length	Yarn Count (Ne)	Yarn Type	Cultivation Country (Organic)	Product Suitability
Gossypium Arboreum	Short	3-20	OE, K	Benin, Bukian Faso, India, Mali, Pakistan, Peru, Senegal, Tanzania, Uganda, USA	Denim/Jeans, Home, Canvas, Non- Wovens, Medical, Industrial textiles
Gossypium Herbaceum	Short	3–20	OE, K	Benin, Bukian Faso, India, Mali, Pakistan, Peru, Senegal, Tanzania, Uganda	Denim/Jeans, Home, Canvas, Non- Wovens, Medical, Industrial textiles
Gossypium Hirsutum (Upland)	Medium, Long	18-45	К, С, СК	Benin, Brazil, Bukina Faso, China, Colombia, India, Madagascar, Mali, Pakistatn, Peru, Senegal, Tajikistan, Tanzania, Turkey, Uganda, USA	Denim/Jeans, Home, T shirts, Yoga wear, Leisure wear, Causal wear, Under wear, Industrial, Smart, Geo textiles
Gossypium Barbadense	Long, Extra Long	40-130	K, C, CK	China, Egypt, India, Israel, Kyrgyzstan, Madagascar, Peru, Turkey, USA	High-end (fine apparel, underwear/intimates), High-end Home

OE - Open end/Rotor yarn | K - Ring spun carded yarn | C - Ring spun combed yarn | CK - Ring spun combed compact yarn

## **Cotton Classification**

Classification is used to determine the quality of the cotton fiber in terms of length, uniformity, strength, micronaire and color. Cotton classification (and quality) can also be affected by trash content, leaf grade, and the presence of extraneous matter.

## International Classification Standard<sup>2</sup>

In order to improve objectivity, classification of cotton fiber has largely moved from manual to instrument based testing. High-volume, precision instruments (HVI), which perform measurements of different parameters in a matter of seconds, are now commonly used around the world.

Instrument standards are cottons used for instrument calibration and verification. These standards include Universal HVI Calibration cotton, Extra-Long Staple (ELS) Calibration cotton, Universal HVI Micronaire Calibration cotton, and Universal HVI Cotton Color and Cotton Trash Standards. These standards serve the USDA and most cotton organizations worldwide as the basis for instrument cotton classification. In 2004, ICAC recommended the USDA's classification system as the model to be used globally<sup>3</sup>.

## Fiber Length<sup>3</sup>

Fiber length is the average length of the longer half of the fibers (upperhalf mean length). Fiber length is measured by passing a "beard" of parallel fibers through an optical sensing point. The beard is formed when fibers from a sample of cotton are automatically grasped by a clamp, then combed and brushed into parallel orientation. Fiber length can be reported in 100ths and 32nds of an inch, however, international convention is to report in millimeters (mm).

Table 3: Fiber Length Conversion Chart						
Fiber Length	mm	inches				
Short	<25	<26/32				
Medium	25-30	26/32-35/32				
Long	30-35	36/32-42/32				
Extra Long	>35	>44/32				

Fiber length is largely influenced by variety, but the cotton plant's exposure to extreme temperatures, water stress, or nutrient deficiencies may result in shorter fibers. Excessive cleaning or drying at the gin may also result in shorter fibers. Fiber length affects yarn strength, yarn evenness, and the efficiency of the spinning process. The fineness of the yarn (see over page) that can be successfully produced from given fibers is also influenced by fiber length.

## Length Uniformity<sup>4</sup>

Length uniformity is the ratio between the mean length and the upperhalf mean length of the fibers, expressed as a percentage. If all of the fibers in the bale were the same length, the mean length and the upperhalf mean length would be the same, and the uniformity would be 100 percent. However, because of natural variation in the length of cotton fibers, length uniformity will always be less than 100 percent.

Length uniformity affects yarn evenness and strength and the efficiency of the spinning process. It is also related to shortfiber content (content of fibers shorter than 1/2 inch). Cotton with a low uniformity index is likely to have a high percentage of short fibers. Such cotton may be difficult to process and is likely to produce low-quality yarn.

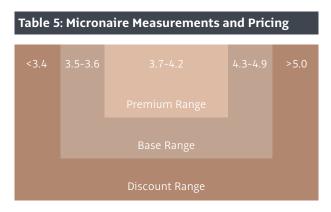
#### Table 4: Fiber Length Conversion Chart

Length Uniformity	Classification
<77	Very Low
77-79	Low
80-82	Average
83-85	High
>85	Very High

Length Uniformity Index (LUI) = 100 x Mean Length Upper Half Mean Length

#### Micronaire<sup>5</sup>

Micronaire is a measure of fiber fineness and maturity. Micronaire measurement aligns with quality and, subsequently, pricing. An airflow instrument is used to measure the air permeability of a constant mass of cotton fibers compressed to a fixed volume.



Micronaire can be influenced during the growing period by environmental conditions such as moisture, temperature, sunlight, plant nutrients, and extremes in plant or boll population.

Fiber fineness affects processing performance and the quality of the end product in several ways. In the opening, cleaning, and carding processes, low-micronaire or fine-fiber cottons require slower processing speeds to prevent damage to the fibers. Yarns made from finer fiber have more fibers per crosssection, which results in stronger yarns. Dye absorbency and retention are affected by the maturity of the fibers; the greater the maturity, the better the absorbency and retention.

#### **Color**<sup>6</sup>

The color of cotton samples is determined by two parameters: degree of reflectance (Rd) and yellowness (+b). Degree of reflectance shows the brightness of the sample and yellowness depicts the degree of cotton pigmentation.

The color of cotton fibers can be affected by rainfall, freezes, insects, fungi, and staining through contact with soil, grass, or cotton-plant leaf. Color can also be affected by excessive moisture and temperature levels during storage, both before and after ginning. There are five recognized groups of color: white, gray, spotted, tinged, and yellow stained. As the color of cotton deteriorates, so does the fibers' ability to absorb and hold dyes and finishes, which is likely to reduce processing efficiency.

#### Yarn

Yarn is a long, continuous length of interlocked fibers suitable for use in the production of textiles, sewing, crocheting, knitting, weaving, embroidery and ropemaking. Spun yarn is made by twisting or otherwise bonding staple fibers together to make a cohesive thread. Twisting fibers into yarn in the process called spinning can be dated back to the Upper Paleolithic, and yarn spinning was one of the very first processes to be industrialized.

## Yarn Count (Fineness)<sup>8</sup>

Yarn count refers to the thickness of a yarn and is determined by its mass per unit length. It is usually measured by the number of grams per one kilometer of yarn, a unit of measure called a "tex".

Another numbering system is the metric yard numbers, the "Nm", which is the length in meters per 1 gram of mass. However, the spinning industry tends to use the English cotton count, which is determined by the number of yarn hanks (each 840 yards long) per pound of yarn, and is notated "Ne". In this system, the larger the number the finer the yarn, and vice-versa. The yarn count for denim ranges from Ne 4.0 to Ne 12.5, with lighter weight fabrics such as chambray ranging from Ne 12.5 to Ne 30.5.

#### Table 6: Fiber Staple Length and Yarn Count Range

Staple Length	Yarn Count Range						
Length	Туре	Ne	Nm	Тех			
Short	Coarse	3-16	5-27	197-37			
Medium	Medium	17-44	28-76	34.7-13.1			
Long	Fine	45-80	77-135	12.8-7.4			
Extra Long	Very fine	>80	>135	>7.4			

#### **Rotor Yarn (Open End)**

Rotor - or open end - spinning produces less regular, weaker yarns, that have a harsher feel to them than ring spun yarns. Rotor spun yarns are mainly produced in the medium (30 Ne, 20 tex) to coarser (10 Ne, 60 tex) count range. End use includes denim, socks and blankets.

#### Chart 1: Rotor Spinning Process for Rotor Yarn<sup>9</sup>

Rotor Yarn	
Blow Room	
$\downarrow$	
Carding ↓	
Drawing I	
$\downarrow$	
Drawing II	
(Optional)	
$\downarrow$	
Rotor Spinning	

#### Example of Rotor (Open End) Yarn<sup>10</sup>



## **Ring Yarn**

Ring spinning produces higher quality yarns than rotor spinning. Ring spun yarns are mainly produced in the fine (60 Ne, 10 tex) to medium (30 Ne, 20 tex) count range. End use includes shirting and toweling.

#### Chart 2: Ring Processing for Different Ring yarns<sup>11</sup>

Ring Carded Yarn	<b>Ring Combed Yarn</b>	Ring Compact Yarn Blow Room			
Blow Room	Blow Room				
$\downarrow$	$\downarrow$	$\downarrow$			
Carding	Carding	Carding			
$\downarrow$	$\downarrow$	$\downarrow$			
Drawing I	Drawing I	Drawing I			
	(Draw Frame)	(Draw Frame)			
$\downarrow$	$\downarrow$	$\downarrow$			
<b>Drawing II</b> (optional)	Silver Lap	Silver Lap			
$\downarrow$	$\downarrow$	$\downarrow$			
Roving	Combing	Combing			
(Roving Frame)	(Comber)	(Comber)			
$\downarrow$	$\downarrow$	$\downarrow$			
<b>Ring Process</b>	Drawing II	Drawing II			
(Ring Frame)	(Draw Frame)	(Draw Frame)			
	$\downarrow$	$\downarrow$			
	Roving	Roving			
	$\downarrow$	$\downarrow$			
	<b>Ring Process</b>	<b>Ring Process</b>			
	(Ring Frame)	(Ring Frame with Compact)			

#### Example of Ring Spun Yarn<sup>12</sup>



#### Example of Compact Ring Spun Yarn<sup>13</sup>



## **Ginned Lint**

Ginned lint is the raw state of the fiber following removal of seed and foreign matter during the ginning process.

## Carding

Carding individualizes, aligns, and further cleans the fibers before condensing them into a single, continuous strand of overlapping fibers called a "carded sliver".<sup>14</sup>

## Combing

Combing removes the final proportion of short fibers, neps, and other impurities and the output is known as "combed sliver", which then goes through the drawing process. The waste from combing is called "noil" or "comber waste". Combed yarns are usually finer, stronger, smoother and more uniform than carded yarns.<sup>15</sup>

## Drawing

In the drawing process, fibers are blended, straightened and the number of fibers in the sliver reduced to achieve the desired linear density and to improve uniformity. The output of this process is known as "drawn sliver".<sup>16</sup>

## Roving

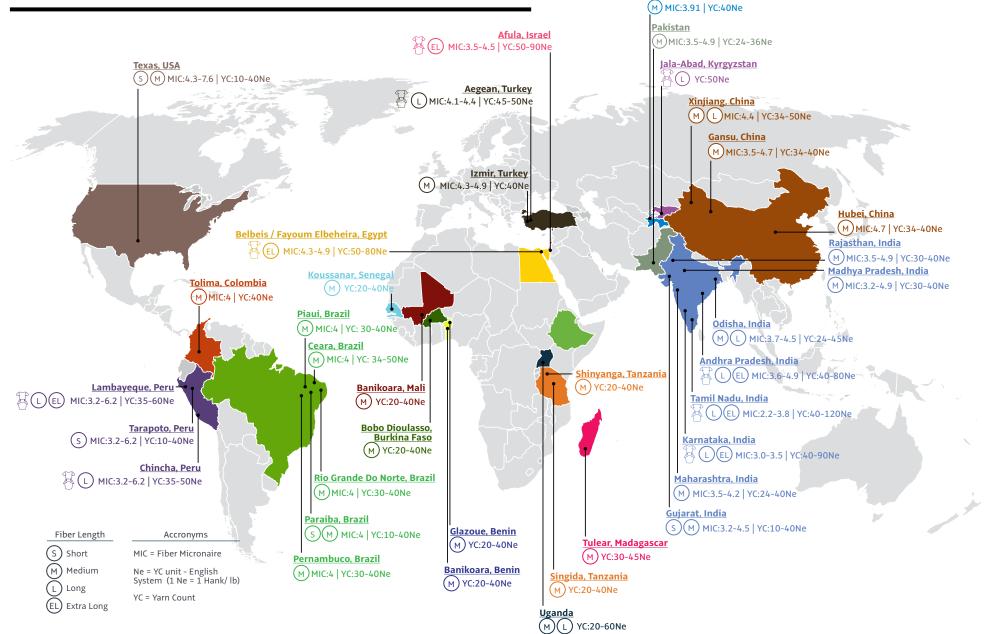
Roving condenses the sliver into a finer strand, known as "roving", with a small amount of twist added.  $^{\rm 17}$ 

Example of Cotton at Various Stages of Processing<sup>18</sup>



Fergana Valley / Northern Tajikistan / Khujand, Tajikistan

## GLOBAL ORGANIC COTTON FIBER CLASSIFICATION MAPPING



## ORGANIC COTTON FIBER CLASSIFICATION BY COUNTRY

	Country	Region	Fiber Length (S,M,L,EL)	Fiber Length (mm)	Fiber Micronaire (Mic)	Yarn Count (Ne)	Yarn Type (Spinning Method)	2015 Supply (mt)	Product Suitability
	Tanzania	Shinyanga	M	24-30		20-40	OE K C CK	950	¶ ≞ Ŷ & ? / ₹ \
	Tanzania	Singida	M	24-30		20-40	OE K C CK	1196	
	Ethiopia	Omo Valley	M	24-30		20-40	OE K C CK	795	
	Madagascar	Tulear	ML	28-34		30-45	КССК	5	
Africa	Uganda	Ugands Lango (Lira, Apac)	ML	24-36		20-60	OE K C CK	795	
Afr	Mali	Banikoara (Sikasso, Bougouni)	M	24-30		20-40		526	
	Senegal	Koussanar	M	24-30		20-40	OE K C CK	13	◧▰◐◬◰◮ᄫ
	Benin	Glazoue	M	24-30		20-40		345	\$\$ \$\$ \$\$ \$\$ \$\$ \$\$
	Benin	Banikoara	M	24-30		20-40	OE K C CK	32	
	Burkina Faso	Bobo Dioulasso (Fuanliedi)	M	24-30		20-40	OE K C CK	1,067	
	China	Gansu (Dunhuang)	M	28-30	3.5-4.7	34-40	K C CK	2,186	<b>₽</b> \$ \$ \$ \$ \$
China	China	Xinjiang (Heshituoluogai, Maigaiti, Akesu, Hutubi)	MLEL	28-36	4.4	34-50	K C CK	10,955	8₽₽☆24₹
	China	Hubei (Shishou)	M	28-30	4.7	34-40	K C CK	4	₽° 2 2 1 4

Fiber Length	Product Suitability	Spinning Method & Product Suitability				
S Short	Denim 🛛 😤 Leisure wear	OF Open end/Rotor yarn ———— Home textiles & Denim				
M Medium	🕮 Home textiles 🅼 Casual wear	K Ring spun carded yarn —————Knitting/weaving - low quality fabric (Fashion & Home textiles)				
L Long	${}$ T-shirts ${\swarrow}$ Undergarments	C Ring spun combed yarn ———— Knitting/weaving - fast fashion fabric (Fashion & Home textiles)				
EL Extra Long	🍰 Yoga wear 🛛 🖁 Luxury wear	🕼 Ring spun combed compact yarn — Knitting/weaving - high quality fabric (Fashion & Home textiles)				

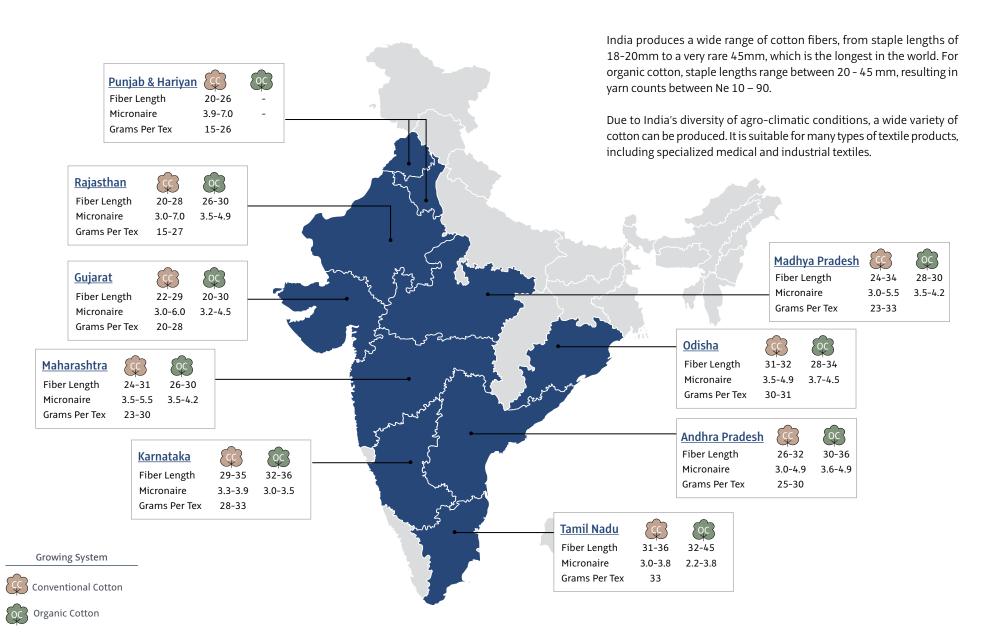
	Country	Region	Fiber Length (S,M,L,EL)	Fiber Length (mm)	Fiber Micronaire (Mic)	Yarn Count (Ne)	Yarn Type (Spinning Method)	2015 Supply (mt)	Product Suitability
Turkey	Turkey	Aegean (Aydin, Izmir, Manisa, Uşak)	L	30-33	4.1-4.4	45-50		3,447	8 🖴
Tur	Turkey	Southeastern Anatolia (Şanlıurfa)	M	30	4.3-4.9	40	K C CK	3,858	₽°2 2 1 4
C.Asia	Kyrgyzstan	Jala-Abad	L	33		50	K C CK	5,543	8 🖴
C.A	Tajikistan	Fergana Valley, Northern Tajikistan, Khujand	M	30	3.91	40	K C CK	1,000	
MENA	Egypt	Belbeis, Fayoum Elbeheira	E	34	4.3-4.9	50-80	K C CK	2,556	8 🖷
МЕ	Israel	Afula	EL	34-48	3.5-4.5	50-90	K C CK	14	
	India	Madhya Pradesh	M	28-30	3.2-4.9	30-40	K C CK	30,484	
	India	Maharashtra	M	26-30	3.5-4.2	24-40	K C CK	11,230	
	India	Odisha	ML	28-34	3.7-4.5	24-45	K C CK	18,656	
lia	India	Gujarat	SM	20-30	3.2-4.5	10-40	OE K C CK	13,316	
India	India	Karnataka		32-36	3.0-3.5	40-90	K C CK	1,265	8 📟
	India	Rajasthan	M	26-30	3.5-4.9	30-40	K C CK	61	
	India	Andhra Pradesh		30-36	3.6-4.9	40-80	K C CK	236	8 📟
	India	Tamil Nadu	LEL	32-45	2.2-3.8	40-120	K C CK	4	8 🕮
Pak	Pakistan	Balochistan	M	26-28	3.5-4.9	24-36	K C CK	-	

Fiber Length	Product Suitability	Spinning Method & Product Suitability				
S Short	👖 Denim 🎢 Leisure wear	Open end/Rotor yarn ———— Home textiles & Denim				
M Medium	🕮 Home textiles 🕼 Casual wear	K Ring spun carded yarn Knitting/weaving - low quality fabric (Fashion & Home textiles)				
L Long	$\bigcirc$ T-shirts $\bigtriangledown$ Undergarments	C Ring spun combed yarn ———— Knitting/weaving - fast fashion fabric (Fashion & Home textiles)				
EL Extra Long	🏂 Yoga wear 🛛 🖁 Luxury wear	🕼 Ring spun combed compact yarn —— Knitting/weaving - high quality fabric (Fashion & Home textiles)				

	Country	Region	Fiber Length (S,M,L,EL)	Fiber Length (mm)	Fiber Micronaire (Mic)	Yarn Count (Ne)	Yarn Type (Spinning Method)	2015 Supply (mt)	Product Suitability
	Peru	Chincha	L	30-35	3.2-6.2	35-50	K C CK	183	ð 🚍
	Peru	Lambayeque	LEL	30-36	3.2-6.2	35-60	K C CK	52	
	Peru	Tarapoto (San Martin)	S	25	3.2-6.2	10-40	OE K C	319	
rica	Colombia	Tolima (Espinal/El Guamo / Nnatagaima)	M	30	4	40	КССК	0.8	
Latin America	Brazil	Ceara (Taua, Quixeramobim, Nova Russas)	M	29-30	4	34-40	K C CK	7	
Lati	Brazil	Pernambuco (Serra talhada)	M	29-31	4	30-40	K C CK	2	
	Brazil	Piaui (Sao Raimundo Nonato)	M	29-31	4	30-40	K C CK	-	
	Brazil	Paraiba (Remigio, Juarez Tavora, Jerico, Salgado de sao Felix)	SM	25-31	4	10-40	КССК	10	
	Brazil	Rio Grande Do Norte (Apodi)	M	29-31	4	30-40	K C CK	4	
USA	USA	California	SMEL	?	?	?	OE K C CK	?	₿∰ ₽ ₽ å X ∰
	USA	Texas	SM	23-32	4.3-7.6	10-40	OE K C CK	2,432	
	USA	New Mexico	SMEL	?	?	?	OE K C CK	?	ड़॒॑॑॑ऀ ⇔ ᠿ ढ़ ऄ ॔ ॒ ♥

Fiber Length	Product Suitability	Spinning Method & Product Suitability				
S Short	Denim 🔂 Leisure wear	OE Open end/Rotor yarn ———— Home textiles & Denim				
M Medium	🕮 Home textiles 🎢 Casual wear	K Ring spun carded yarn ————— Knitting/weaving - low quality fabric (Fashion & Home textiles)				
L Long	${ \begin{tabular}{c} \hline & \\ & \\$	C Ring spun combed yarn ———— Knitting/weaving - fast fashion fabric (Fashion & Home textiles)				
EL Extra Long	💫 Yoga wear 🛱 Luxury wear	🔀 Ring spun combed compact yarn — Knitting/weaving - high quality fabric (Fashion & Home textiles)				

## COMPARISON OF CONVENTIONAL AND ORGANIC COTTON FIBER CHARACTERISTICS IN INDIA



## ORGANIC COTTON AND LUXURY

Perceptions of quality are evolving to include not only classical notions of fiber length, strength and color but also, increasingly, sustainability criteria as well.

Organic cotton and the Luxury sector share a number of characteristics. They are both built on a deep respect for origin, tradition and craftmanship, and design for longevity. Likewise, these values align with those of sustainability. This concept is further explored as follows:

- Understanding the origin of a product allows one to make a deep connection to identity, diversity, and how to work in harmony within the laws of nature.
- Tradition and craftsmanship draw on a depth of knowledge and expertise that only results from years of experimentation, innovation, and practice and a passing on of that knowledge from one generation to the next; and
- Longevity is of prime importance to "quality" and is synonymous with the ideas of lasting design and endurance beyond fads in fashion

Just as the organic cotton farmer hones his craft, working in an ecosystem where the laws of nature are respected through the preservation of soil fertility and landscape diversity, to produce a fiber free from GMO and chemical pesticides, so too does luxury design take the utmost care to use only the highest quality raw materials and craftsmanship in their uniquely beautiful products.

With these tenets already naturally aligned, the Luxury sector also needs to align expectations of quality with those of sustainability, ensuring that product origins, craftmanship, and longevity

#### Table 1: Organic Cotton Fiber Suitable For Producing High-End Textiles

Classification	Length (mm)	Common Names - Origins
Long Staple (LS)	30-35	Tanguis (Peru); Giza 86 (Egypt); Xinjiang (China); Aegean (Turkey); Kyrgyz 5 (Kyrgyzstan)
Extra Long Staple (ELS)	>35	Pima (Israel, Peru, United States); Giza 88 (Egypt); Suvin (India)

extend to nature and human cultures, and that this connection goes right back to the beginning. This is already a key focus of Kering's sustainability strategy, as an example.

Overall, luxury and organic agriculture share common themes and can unlock many doors to sustainability.



## **Quality and Sustainability**

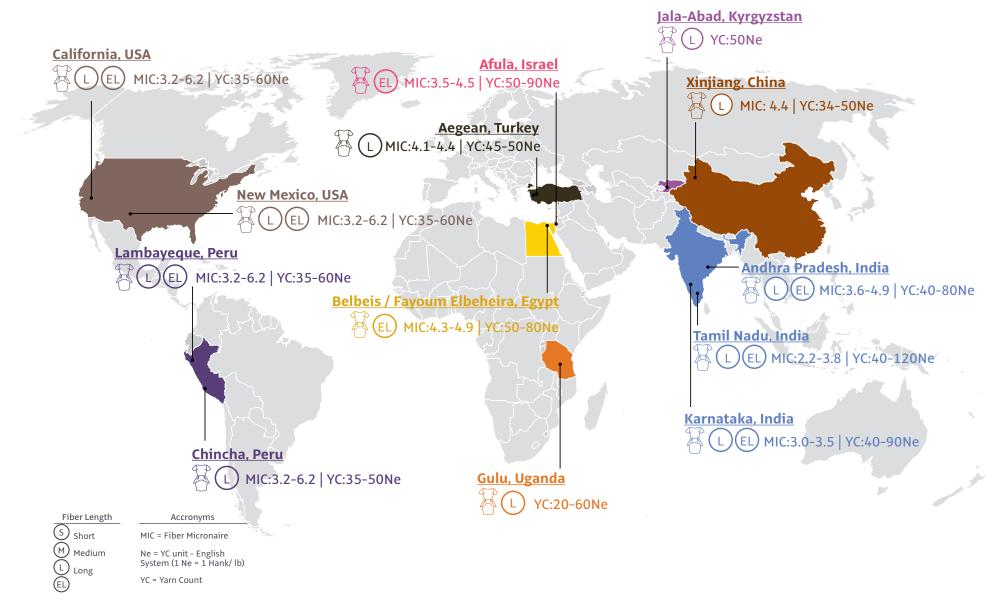
High quality fiber is differentiated by its staple length, which gives it superior characteristics with respect to color absorption, strength, feel and durability. The longer lengths directly contribute to the uniformity, strength and luster of yarns, making them softer and more durable<sup>19</sup>. These characteristics make Extra Long Staple (ELS) and Long Staple (LS) cotton particularly well suited for luxury products and are used mainly for fine fabrics, yarns, and hosiery.

LS and ELS range from about 30 to 65 mm and include Pima (the generic name for cotton from the Gossypium Barbadense species), Indian Suvin, and Egyptian cotton.

High quality LS and ELS cotton production requires specific climatic conditions<sup>20</sup> which, combined with higher production costs, contributes to its scarcity at just 2-3 percent of total global conventional cotton production<sup>21</sup>.

Organic LS and ELS is currently grown in China, Egypt, India, Israel, Kyrgyzstan, Turkey, Uganda, and the United States. Volumes are low, and fiber length can vary with climatic conditions, particularly in rainfed regions.

## ORGANIC COTTON FIBER FOR HIGH-END PRODUCTION





## ORGANIC COTTON SUPPLIER DIRECTORY - LONG AND EXTRA LONG STAPLE FIBER

	Country	Region	Fiber Length (L,EL)	Organization
ica	Madagascar	Tulear	L	BIONEXX
Africa	Uganda	Gulu	L	Cotonea
China	China	Xinjiang (Heshituoluogai, Maigaiti, Akesu, Hutubi)		Esquel Agritechology Co. Ltd
ž	Turkey	Aegean (Aydin, Izmir, Manisa, Uşak)	L	Akasya
	Turkey	Aegean (Kadıoğlu)	L	Egedeniz/Kadioglu
si	Kyrgyzstan	Jala-Abad	L	ACSC Bio Farmer
	Kyrgyzstan	Osh and Jalal-Abad	L	Akasya
MENA	Egypt	Damietta	EL	Cotton For Life
	Egypt	Belbeis, Fayoum Elbeheira	EL	SEKEM
	Israel	Afula	EL	Otto Stadtlander
India	India	Odisha	L	Pratima Agro
	India	Odisha	L	Spectrum International Pvt Ltd
	India	Odisha	L	Sree Ambic Agro Industrires Pvt Ltd
	India	Odisha, Andhra Pradesh	L	Chetna Organic
	India	Odisha	L	Bansal Organic (Om Organic)
	India	Odisha	L	Jay Durga
	India	Karnataka		Suminter India Pvt Ltd
	India	Karnataka, Tamil Nadu	LEL	Appachi Cotton
	India	Tamil Nadu	LEL	Anandi Eco Farming Farmers Group
Peru	Peru	Chincha, Lambayeque		Ecotton (Bergman Rivera)
USA	USA	California	LEL	Terranova Ranch Inc
S	USA	New Mexico	LEL	Alvarez Farms

This list of organic cotton suppliers acts as a sample, and not as an exhaustive list of suppliers. For a full list of up to date organic cotton producers or for further details please contact Textile Exchange: materials@textileexchange.org

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#### TEXTILE EXCHANGE RESOURCES FOR FURTHER INFORMATION

- Organic Cotton Life Cycle Assessment
- Organic Cotton Market Report
- Organic Cotton Material Snapshot
- Organic Cotton Material Summary
- Glossary

#### SOURCE

The information provided in this guide was sourced by Textile Exchange staff and Regional Ambassadors based in Africa, Central Asia, China, Latin America, and Turkey. Information for Egypt, Israel and the USA was provided by SEKEM, the Israel Cotton Board, the Organic Trade Association and the Texas Organic Cotton Marketing Coop, respectively.

#### METHODOLOGY

See the <u>Organic Cotton Market Report 2016</u> (page 77) for a comprehensive overview of the primary data collection methodology.

#### DISCLAIMER

Organic Cotton: A Fiber Classification Guide is based on primary data collected in accordance with the methodology referenced above. While Textile Exchange has followed a sound data collection and management methodology, TE does not verify the quality of the data provided and reported.

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