

Cotton: from Plant to Textile Industry

Cotton is the most widely used natural fibre in the world. Cultivated in warm regions across all continents, it represents a global economic pillar at the heart of clothing, furnishings, and the textile industry more broadly. Despite competition from synthetic fibres, cotton maintains a central position and is experiencing renewed interest, driven by demand for natural or sustainable products.



History & Ancient Structure of the Cotton Sector

- The earliest traces of cotton use date back to antiquity: in Central America as early as 5800 BC, then in China and India around 3000 BC. Thus, thousands of years before industrialisation, cotton was already used to make fabrics and clothing.
- In the Middle Ages, cultivation expanded, particularly in temperate zones, thanks to the import of seeds and international trade.
- The invention of the spinning machine and then the mechanical loom in the 19th century transformed textile production: cotton became one of the world's primary industrial raw materials.
- Since the second half of the 20th century, despite the rise of synthetic fibres, cotton has endured, and since the 1990s, interest in natural, ecological, or organic fibres has given it a new lease of life.

Thus, cotton illustrates the evolution of humanity: from an artisanal fibre to an industrial pillar, undergoing socio-cultural, economic, and technological dynamics.

From Seed to Textile: The Production and Processing Process

The production and processing of cotton involve several successive stages:

| | | |
|--|---|---|
| 01 | 02 | 03 |
| Sowing and Cultivation | Harvest | Ginning / Defibration |
| In warm regions, with needs for heat, water, and often intensive irrigation. | Manual or mechanical, depending on regions and agricultural infrastructure. | Separation of cotton fibres from seeds. |
| 04 | 05 | 06 |
| Cleaning, Carding | Spinning | Weaving or Knitting |
| Elimination of impurities, alignment of fibres. | Transformation of fibres into yarn. | Production of fabrics. |
| 07 | | |
| Finishing | | |
| Bleaching, dyeing, treatment, sometimes chemical or mechanical treatment depending on final use. | | |

Through this process, cotton is transformed from a raw material into a textile ready for use in clothing, household linen, furnishings, or technical applications. Its quality largely depends on the rigour of the agricultural and industrial stages.

Global Data and Current Dynamics (2024–2025)

Here are the latest benchmarks for the global cotton market: production, consumption, trends, and outlook.

- For the 2024/2025 season, according to the OECD–FAO report, global raw cotton (fibre) production is recovering after two years of decline, supported notably by yield increases in major producing countries.
- By 2034, global production is projected to reach approximately 29.5 million tonnes, a structural increase driven by improved yields (seeds, agricultural practices, technologies) rather than by a massive expansion of cultivated areas.
- Asia (especially Vietnam, Bangladesh, India) will remain the main centre for processing raw cotton into textiles, while historical countries (United States, Brazil, China, India) will continue to account for the majority of global production.
- Global trade in raw cotton is expected to grow moderately over the coming decade, following the growth in textile demand and clothing consumption in middle-income countries.

2025 Market: Stocks, Exports, Consumption

- According to the latest USDA report, the 2025/26 season projects global consumption to be slightly higher than production, which should lead to a slight decrease in global stocks.
- The main remaining exporters are the United States and Brazil, while India and some Southeast Asian countries are expected to increase their domestic consumption or imports to support their textile industries.

Trends & Challenges for the Decade 2025–2034

Positive Trends


- The rise in textile demand in emerging countries/continents (Asia, Africa, Latin America) fuels the need for cotton fibre for clothing, home textiles, and technical fabrics.
- Technological advancements (improved seeds, precision agriculture, sustainable agricultural practices) enable increased yields while limiting environmental impact, which is an asset in a world increasingly aware of climate issues.
- Diversification of outlets: "classic" textiles, eco-responsible fashion, technical textiles, fibre recycling, sustainable clothing, which can support the added value of raw cotton.

Risks and Volatility Factors

- Climate change, water stress, pests, or unfavourable weather conditions can significantly impact yields and production, posing a risk to supply.
- Competition from synthetic fibres (cheaper, sometimes easier to produce) represents sustained pressure on demand for natural cotton.
- Imbalances between global production, consumption, and stocks, in the event of overproduction, can cause prices to fall.
- Geopolitical uncertainties, fluctuations in logistics costs, environmental or trade regulations can affect cotton's competitiveness.

Conclusion

From tropical fields to textile factories, from raw fibre to clothing or upholstery fabric, cotton embodies a raw material that is both ancient and modern, natural and industrial. It remains a pillar of the global textile economy, but it will have to meet the challenges of competitiveness, sustainability, and supply-demand balance in an uncertain global context.

 **For an investor or industry player, cotton represents a strategic asset to monitor, provided that climate, logistical, and macroeconomic issues are integrated.**

Sources

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