

Wheat: From Field to Loaf

Wheat, one of the most widely cultivated and consumed cereals in the world, has accompanied humanity for millennia. From the first agricultural civilisations of the Fertile Crescent to today's global futures markets, it now represents a major issue for food security, global trade, and economic and political stability.



1. 10,000 Years of History: From First Crops to Globalisation

- The first agricultural civilisations of the Fertile Crescent (present-day Iraq, Syria, Turkey) domesticated wheat approximately 10,000 years ago, initiating the settlement of peoples.
- Antiquity saw the expansion of its cultivation: in Egypt, Greece, then throughout the Mediterranean basin, bread and cereals became dietary staples.
- In the Middle Ages, wheat constituted the cornerstone of the European diet.
- In the 18th-19th centuries, agricultural revolutions (mechanisation, varietal selection) greatly increased yields and production volumes.
- In the 20th century, the "Green Revolution" (modern seeds, fertilisers, irrigation) further transformed production capacity.
- Today, wheat is cultivated in many varieties depending on its use: soft wheat for bread/pastries, durum wheat for pasta/semolina. This reflects the diversity of global demand.

2. From Field to Flour: Transforming Grain into Food

Here are the main stages that transform wheat grain into a consumable product (flour, bread, pasta, etc.):

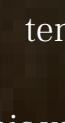
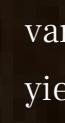
01	Wheat Harvest	02	Storage	03	Cleaning
	After ripening, at an adapted moisture content (around 12-14%).		In ventilated silos to prevent deterioration, insects, mould.		Then, if necessary, moistening before milling.
04	Milling	05	Flour		
	In grinders: the grain is separated into endosperm (flour), bran (animal feed/fibre), germ (oils, semolina, derived products).		Used for bread, pasta, pastries, semolina, etc. On average, 1 kg of wheat yields \approx 750 g of flour, depending on the type and milling efficiency.		

Wheat therefore remains an essential staple food, transformed at different stages depending on its use, making its sector highly structured and varied.

3. Global Wheat Giants (2025 Status): Production & Role of Key Areas

According to the latest data (2024/2025 campaign):

- Global raw wheat production is estimated at \approx 799.7 million tonnes.
- Among the main producers:

 China	\sim 140.1 million tonnes
 European Union	(all member states combined)
	Estimated production \sim 122.1 million tonnes
 India	\sim 113.3 million tonnes fas.usda.gov+
 Russia	\sim 81.6 million tonnes fas.usda.gov+
 United States	\sim 53.7 million tonnes fas.usda.gov+

These countries, along with others like Canada, Australia, and Pakistan, currently form the backbone of global wheat production.

- In 2025/26, global forecasts are favourable: projected world production would reach \approx 808.5 million tonnes, confirming that wheat remains a mass market commodity.

4. Wheat Market & Quotation: A Volatile Asset, Reflecting Geopolitical and Climate Stakes

Wheat is one of the most traded grains on international markets:

- Key markets include the Chicago Board of Trade (CBOT, USA), and in Europe, exchanges like Euronext / MATIF (Paris).
- Prices vary greatly depending on supply, demand, energy costs, agricultural inputs, climatic conditions, and geopolitical tensions (Black Sea region, Russian/Ukrainian exports, etc.).

This volatility makes wheat a key product for hedging strategies, futures markets, as well as an indicator of risk and food security on a global scale.

5. Future Challenges & Stakes (2025-2030 and beyond)

Structural Pressures

- Population growth (global population projected at \sim 9.7 billion by 2050) will increase food demand: wheat growth must keep pace.
- Climate change: droughts, water stress, weather variations, soil degradation risk strongly impacting yields, especially in vulnerable areas.
- Geopolitical dependence: exporting regions like Russia or the Black Sea remain sensitive to political risks, sanctions, and logistics, which can disrupt global supply.

Conclusion

Need for Innovation & Adaptation

- Development of resilient varieties, sustainable agriculture, water management, optimised fertilisation to maintain productivity.
- Diversification of outlets: bio-industries, biofuels, industrial uses, to reduce pressure on the food chain.
- Maintaining global food security, based on public policies, storage, international cooperation, and anticipation of shocks.

From domesticated wheat in the Fertile Crescent 10,000 years ago, to the baguette in modern bakeries, wheat embodies a direct link between agriculture, food, economics, and geopolitics. A pillar of our diet, it also remains a strategic asset subject to numerous climatic, political, and logistical challenges.

Its future relies on the balance between innovation, supply chain resilience, international cooperation, and adaptation to global transformations.

Sources

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