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**THÜNEN**

**Crop Portrait SOYBEAN**

by **agribenchmark**

### Soybean Production Systems

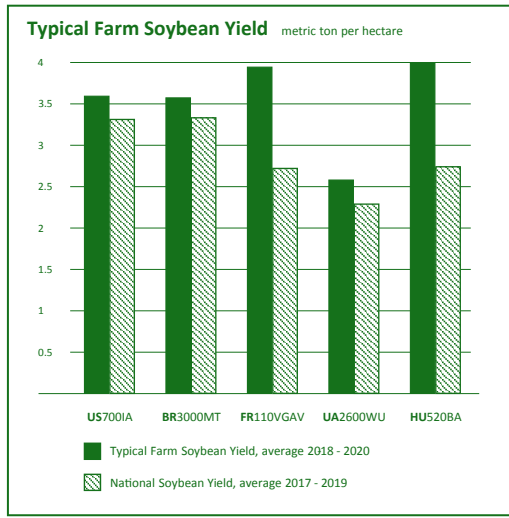
The leading producers and typical farms

**Location of typical farms**

**Top 5 Countries Soybean Production 2020, in metric tons**

- BRAZIL: 131 Million
- UNITED STATES: 120 Million
- ARGENTINA: 54 Million
- CHINA: 18 Million
- INDIA: 11 Million

Country	Typical Farm	Specific location	Soybean acreage	Tillage system	Exchange rate (2020)
USA	US700IA	North Central Iowa	364 hectares (50% of total acr.)	Conservation Tillage - with reduced stubble breaking and mulch-seed	1 USD = 3.95 BRL
Brazil	BR3000MT	Mato Grosso, Campo Novo do Pareci	900 hectares (27% of total acr.)	No - Tillage - with one pass seeding (direct seeding)	1 USD = 0.88 EUR
France	FR110VGAV	Vallée de Garonne AVAL	10 hectares (9% of total acr.)	Intensive tillage (plough)	1 USD = 27 UAH
Ukraine	UA2600WU	Ukraine/Ternopil, Kremenets	1312 hectares (23% of total acr.)	Min-Till	1 USD = 333 HUF
Hungary	HU520BA	Baranya county	173 hectares (33% of total acr.)	Intensive tillage (plough)	



### Soy - Facts and Figures

**Soybean - physiology and agronomy**  
Like many legumes, soybeans can fix atmospheric nitrogen, due to the presence of symbiotic bacteria from the Rhizobia group. Soybeans require a shorter day length in order to have strong physiological growth. The soil temperature for germination should be at least 10-12 °C.

**Soybean - usage**  
Soybeans contain about 20% oil and 80% protein (meal). Soybean meal is a key feed component in global livestock production. The oil may be refined for cooking and other edible uses, or sold for biodiesel production - primarily in the USA, Argentina and Brazil - or industrial uses. A small percentage of soybean meal is processed for human consumption and made into products including soy milk, soy flour, soy protein, tofu and many retail food products.

**Soybean - GMO**  
Roundup Ready soybeans were introduced in Brazil in 2005 as a genetically modified crop (GMO), resistant to the herbicide glyphosate. Today's Brazilian soybean production is almost complete GMO, including some new pest resistance traits. In the USA and Argentina the market share of GMO soybeans is similar. Most EU-countries - such as France, Germany, Hungary, Poland - have chosen to ban the cultivation of GMO soybeans. A growing number of EU livestock products are claimed to be GMO free - including the feedstock. Therefore, the demand for GMO free soybean meal massively outpaces supply, which has led a non-GMO premium of about 80 to 100 €/t of soybean meal (as of 2021).

