

Brazil dossier summary

Water, climate, fertilisers and crops. The essentials of the 25-page dossier.

Key figures

Figure	What it means
+4,639 t	Of extra maize per 10,000 ha treated, central scenario (2,319 to 9,278 t depending on the scenario).
+1,778 t	Of extra soybean per 10,000 ha treated, central scenario (889 to 3,556 t depending on the scenario).
45,906,902 ha	Of soya beans harvested in 2024, the main crop (FAOSTAT).
9,183,000 ha	Equipped for irrigation, for 63,729,900 ha of cropland (FAOSTAT).
4,642.6 Mm³	Irrigation water saved per year in the central scenario, enough to irrigate about 1,031,388 more ha.
7,005,931 t	Mineral nitrogen used in 2024, partly produced locally.
141,895 M$	Of agricultural exports in 2024, for $14,925 million of imports (FAOSTAT).

M = million · Mm³ = million cubic metres · t = tonnes. The gains are scenarios built from the trials cited; no trial has yet been conducted in Brazil.

Our products

Green Solutions develops products for water, fertilisation and crop protection. Four families are of interest to this dossier.

Product	Claimed use	Published evidence (level)
EVERGREEN® (water-retention polymer)	Holds rain or irrigation water as a gel, near the roots.	Trials on maize, potato, watermelon, date palm and soybean. Level B to C.
ECOSORB® (water-retention polymer based on corn starch)	Same use; lasting 2 to 3 years according to the website.	Soybean trial (China); laboratory acrylamide analysis. Level B to C.
ECOFERT® (fertiliser)	Fertiliser certified by SOHISCERT and EU Bio, usable in organic farming.	Published certificate; potato trial with EVERGREEN®. Levels A and C.
Paulownia ALTIFOLIA®	Fast-growing tree for agroforestry.	Website figures; no trial in Brazil. Level C.

Key points

- **Irrigation, a pillar of production.** 9,183,000 ha equipped for irrigation, or 14.4% of cropland: Every cubic metre saved frees water for other plots.

- **Where water is shortest.** National water stress is 1.5%; Petrolina gets 400 mm of rain for 2,176 mm of evapotranspiration.
- **Rainfed crops quantified.** For maize and soybean, a published trial makes it possible to quantify a yield gain.
- **In irrigation.** The "other irrigated land" group gives 49% of the water saved (generic assumption, no trial).
- **Importing into Brazil.** 12.6% import duty and 3.25% IPI for line 3906.90.11; fertilisers and soil conditioners registered with the Ministry of Agriculture (Decree 4,954 of 2004).

The regions at a glance

Region (city)	Rainfall (mm/yr)	Deficit (mm/yr)	Temperature (°C)
Porto Alegre (Porto Alegre)	1,542	-351	19.7
Cascavel (Cascavel)	1,750	-463	19.5
Ribeirão Preto (Ribeirão Preto)	1,328	170	23.0
Campo Grande (Campo Grande)	1,485	58	23.7
Uberlândia (Uberlândia)	1,287	240	22.2
Rio Verde (Rio Verde)	1,394	148	23.3
Sorriso (Sorriso)	1,385	127	25.4
Luís Eduardo Magalhães (Luís Eduardo Magalhães)	999	715	23.8
Petrolina (Petrolina)	400	1,776	26.5
Recife (Recife)	938	615	25.9
Porto Velho (Porto Velho)	2,303	-1,004	26.1
Belém (Belém)	2,052	-592	26.6

How to read the figures

Each figure refers to a source with a confidence level. A: Official statistics or international database (World Bank, FAO, Brazilian public bodies (IBGE, ANA, Ministry of Agriculture MAPA)). B: Research institute, laboratory or public body outside statistics. C: Manufacturer statement, website, press or estimate. The sources are listed in Annex A of the dossier.

Extra production per 10,000 ha treated

Crop	Average yield (t/ha)	Cautious (t)	Central (t)	High (t)
Maize	5.43	2,319	4,639	9,278
Soybean	3.15	889	1,778	3,556

Trade

- **First products exported.** Soya beans, raw sugar and meat of cattle boneless, fresh or chilled, out of $141,895 million of agricultural exports in 2024.
- **Main imports.** Wheat, olive oil and malt, whether or not roasted; rice weighs $508 million, out of $14,925 million of agricultural imports.

Full dossier: 25 pages, with the sources (Annex A) and the calculation method (Annex B). Green Solutions · contact@green-solutions-group.com · green-solutions-group.com