

Summary of the Oman dossier

Irrigation water, climate, fertilisers and crops. The essentials of the 29-page dossier.

Key figures

Figure	What it means
1,320 Mm³	Water withdrawn each year for agriculture, 81% of all freshwater withdrawals (World Bank, 2022).
117%	Withdrawals compared with internal renewable water resources: Oman uses more water than it renews. The ministry's 2013 balance showed a deficit of about 300 Mm³ per year.
293 Mm³	Water saved per year in the central scenario, 22% of agricultural water. Range from 147 to 586 Mm³ per year.
251 M$	Annual value in the central scenario: 147 M$ for water at 0.50 $/m³ and 104 M$ for the yield gain.
377,066 t	Dates produced in 2022 (NCSI), from about 9.1 million date palms (ministry, 2023).
4.12 bn$	Agricultural imports in 2024, against 969 M$ of exports (FAOSTAT).
898,000 t	Wheat imported in 2024, more than a hundred times domestic production (FAOSTAT).

M = million · bn = billion · Mm³ = million cubic metres · t = tonnes.

Our products

Green Solutions develops products for water, fertilisation and crop protection. Four families concern this dossier.

Product	Claimed use	Published evidence (level)
EVERGREEN® (water retainer)	Holds rain or irrigation water as a gel, close to the roots.	Trials on maize, potato, watermelon, date palm and soybean. Level B to C.
ECOSORB® (water retainer based on maize starch)	Same use; effect lasts 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 Organic.	Published certificate; potato trial combined with EVERGREEN®. Level A (certificate), C (results).
Paulownia ALTIFOLIA®	Fast-growing tree for agroforestry.	Website figures; no trial in Oman. Level C.
Water Vital®, NAPEMA®	Outside the scope of this dossier.	No independent source in the documents consulted.

Key points

- **Agriculture is the main water user.** It takes 81% of freshwater withdrawals. Most irrigation water is groundwater, pumped from wells or carried by aflaj.
- **Aquifers are over-drawn.** Abstraction exceeds natural recharge by 25 to 30%. On the Al Batinah coast, seawater is moving inland.
- **Very little rain, a great deal of sun.** From 22 mm per year at Haima to 158 mm at Khasab, while the atmosphere demands about 2,026 mm per year at Nizwa.

- **Fodder and date palms dominate.** In 2022, fodder crops covered 42.5% of the cultivated area, fruit 29.4% (mostly date palms) and vegetables 25.0%.
- **Date palms carry the result.** They give 125 Mm³ of the central saving, based on the ICBA trial in sandy, saline soil in the UAE: 82% less irrigation water and 20% more dates.
- **Food security depends on imports.** In 2024, Oman imported 898 thousand tonnes of wheat and 325 thousand tonnes of rice.

How to read the figures

Every figure refers to a source with a confidence level. A: Official statistics or international database (FAO, World Bank, National Centre for Statistics and Information, European Commission). B: Research institute, university or public body outside statistics. C: Manufacturer statement, non-independent demonstration, press or estimate. The sources are listed in Annex A of the dossier.

Water saved by crop group (central scenario)

Date palms and vegetables give 225 Mm³ per year, 77% of the central saving.

Crop group	Share of cultivated area	Water used (Mm³/yr)	Water saved (Mm³/yr)
Date palms	23.0%	304	124.7
Vegetables and melons	25.0%	330	100.0
Fodder crops (Rhodes grass, alfalfa, fodder sorghum)	42.5%	561	56.1
Other fruit (limes, bananas, mangoes…)	6.4%	84	8.4
Field crops (wheat, barley…)	3.0%	40	4.0

By governorate

Ad Dakhiliyah and the two Al Batinah governorates produce 54% of Oman’s dates. Dhofar holds 80% of the wheat area.

Governorate	Dates 2022 (t)	Share of dates	Rainfall (mm/yr)	Wheat 2022/23 (feddans)
Ad Dakhiliyah	90,200	23.9%	111	779
North Al Batinah	57,923	15.4%	70	41
South Al Batinah	54,715	14.5%	105	57
North Ash Sharqiyah	52,586	13.9%	85	67
Adh Dhahirah	46,204	12.3%	53	245
South Ash Sharqiyah	30,237	8.0%	92	10
Dhofar	6,584	1.7%	110	5,112

Dates: NCSI 2022. Wheat: Ministry of Agriculture, Fisheries and Water Resources. Rainfall: 1991–2020 average at the main town. Details in section 6 of the dossier.

External trade

- **A large agricultural deficit.** Oman imports about 4.2 times more agricultural products than it exports; part of the exports are re-exports through Omani ports.
- **Dates are mostly eaten at home.** 377,066 t were produced in 2022; 4,557 t were exported and 11,005 t imported in 2024.
- **Room to grow more locally.** Oman also imports 122 thousand tonnes of potatoes and 59 thousand tonnes of tomatoes, crops that it grows in insufficient quantity.

Full dossier: 29 pages, with the sources (Annex A) and the calculation method (Annex B). Green Solutions · contact@green-solutions-group.com · green-solutions-group.com