

What are other solutions towards water resilience?

EU Green Week 2024 #WaterWiseEU





While plant breeding is a valuable tool for developing drought-resistant crops, **there are many other solutions to enhance water resilience in agriculture**. As the world grapples with the challenges of climate change, water scarcity, and food security, it's essential to explore a range of strategies that can help farmers and policymakers build more sustainable and waterresilient food systems.







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Soil Management

Soil management plays a crucial role in enhancing water resilience in agriculture. By optimising soil structure and adding organic materials, you can enhance water infiltration and retention.

> This approach not only **improves water use** efficiency but also enhances soil health and fertility. Healthy soil acts as a sponge, absorbing and storing water, reducing runoff and erosion, and providing a stable environment for plant roots to access nutrients.





Improved water storage systems are crucial for addressing water scarcity in agriculture. Strategies such as **rainwater harvesting**, **wastewater treatment**, and **water reuse** enable farmers to capture and store water for future use. Rainwater harvesting collects rainwater from roofs or land surfaces and stores it in tanks or reservoirs for irrigation.

> Wastewater treatment makes water suitable for irrigation, reducing the demand for freshwater. These methods ensure water availability during droughts, providing a reliable source for agriculture. Enhancing water storage helps farmers build resilience against shortages and supports sustainable water management.



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Plants, for the European Techr Infrastructure Development

Effective infrastructure development is crucial for managing water resources. Investing in local irrigation systems, national water storage facilities, and other infrastructure can ensure water availability during times of drought. This approach helps to:

Reduce water waste: Efficient irrigation systems and water storage facilities minimise water loss.

Improve water use efficiency: Welldesigned infrastructure ensures water is used effectively and efficiently.

Ensure water availability: Infrastructure development ensures water is available during droughts, supporting agricultural productivity and food security. EU Green week 202

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Data-driven solutions

Data-driven solutions are essential for enhancing drought resilience in agriculture. By **using real-time insights to optimise water use** and **improve crop productivity**, you can make more efficient use of water resources. This approach involves leveraging advanced technologies such as precision irrigation and crop monitoring to reduce water waste and improve water use efficiency.



Plants for the European Techne Integrating Agriculture, Food, Nutrition, and Water Resilience

Agroecology offers innovative solutions to address water stress by taking a **holistic approach** that **integrates agricultural production** with the challenges of **food security** and **nutrition**.

By designing and implementing participatory platforms that bring together farmers, researchers, policymakers, and community members, agroecology helps develop **regional strategies** to tackle water constraints.

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Policy and Institutional Support

Effective policy and institutional support are crucial for addressing water scarcity in agriculture. From **investing in key infrastructure** to **incentivising innovation** and **reform**, policymakers must focus on strategies that improve overall national water management. This involves developing policies that support water conservation, efficient use of water resources, and sustainable agriculture practices.

