

# Managing Water and Fertilizer for Sustainable Agricultural Intensification

A guide to the best management practices for water and fertilizers to enhance production, improve profitability and resource efficiency, and reduce environmental impacts.

**Water and nutrients are both essential for agricultural production.**

**3,000** LITRES OF WATER PER DAY

The amount required to grow food for 1 person

**70%**

of water withdrawals attributed to agriculture

Fertilizer's influence on yield depends on the **water available** to crops, and water's impact on yield depends on **nutrients' availability** to crops.

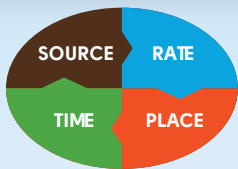
**50%** OF FOOD GROWN

Amount of today's food grown thanks to fertilizer use

**180** MILLION TONNES

Amount of fertilizer nutrients used each year

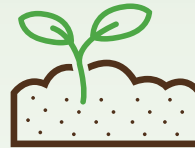
**How can we optimize and synchronize water and nutrient management to contribute to food security and nutrition, farmer profitability and protection of ecosystems?**



**TEACHING '4R' NUTRIENT STEWARDSHIP**  
Applying nutrients from the right source, at the right rate, time & place



**OPTIMIZING WATER MANAGEMENT**  
To improve water productivity and reduce nutrient losses



**STEWARDED OUR SOILS**  
To maintain healthy soils that can supply the water and nutrients crops need



**IMPROVING CROPS**  
To create plant varieties with higher capability to use water and nutrients efficiently

**What will help us achieve this?**

**Integrated research**



Integrated research on the management of soil water and soil fertility can achieve the SDGs of ending hunger and improving water use efficiency.

**Adopting best management practices**



Build capacity in water, soil and nutrient management and technologies like fertigation, precision farming, and conservation agriculture.

**Policy reforms & incentives**



Farmers need to be enabled and encouraged to use water and fertilizer most efficiently.

Download the report at: [www.fertilizer.org](http://www.fertilizer.org)

