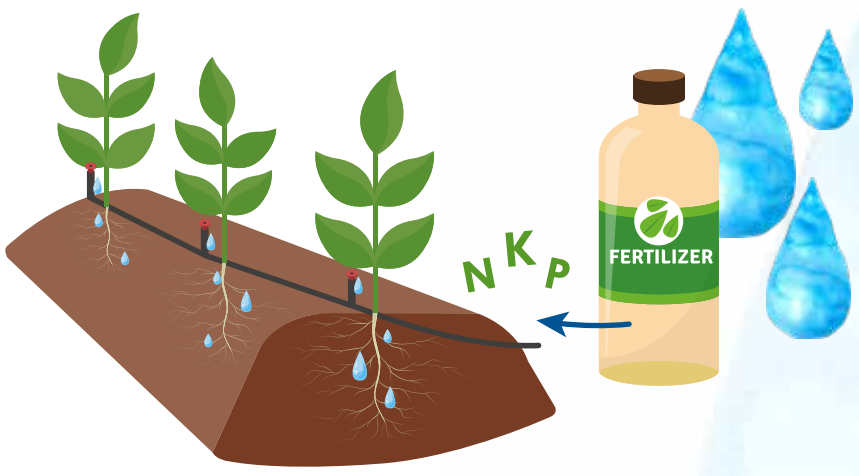
HOW FERTIGATION ENHANCES WATER PRODUCTIVITY NUTRIENT USE EFFICIENCY AND FARMER INCOMES

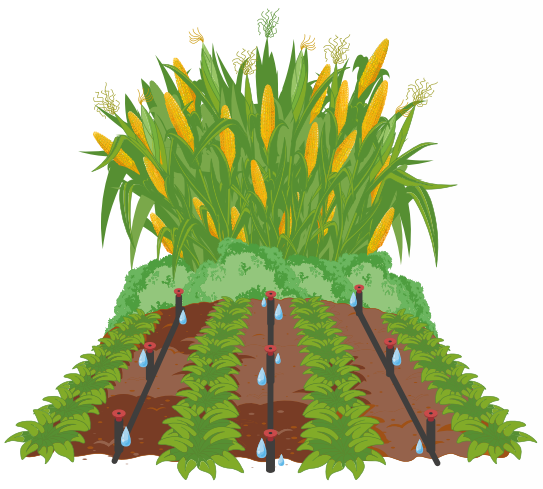
Now more than ever, **water scarcity is a challenge for farmers due to climate change and rising demand. Water quality is also a concern.** At the same time, **we must feed our growing global population while protecting the environment.**

Fertigation is a proven technique that can **help farmers to sustainably grow more food in a changing climate while radically reducing the use of precious resources such as water** using less fertilizer and **minimizing nutrient losses*** to the environment.

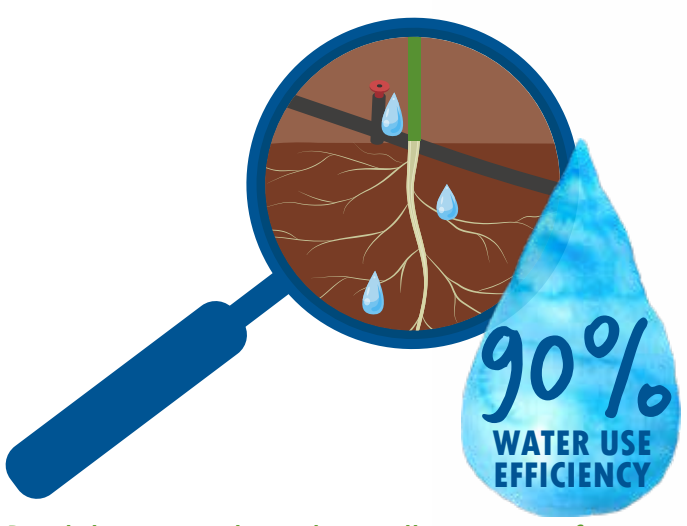


Fertigation is the process of applying fertilizers that can be dissolved in water through irrigation systems to **simultaneously supply plants with their daily water and nutrient needs.**

By combining precise amounts of nutrients with small amounts of water, **fertigation can produce up to 90% nutrient use efficiency (even 100% in high tech greenhouses)** and **reduce nutrients losses** compared to other fertilizer application methods.

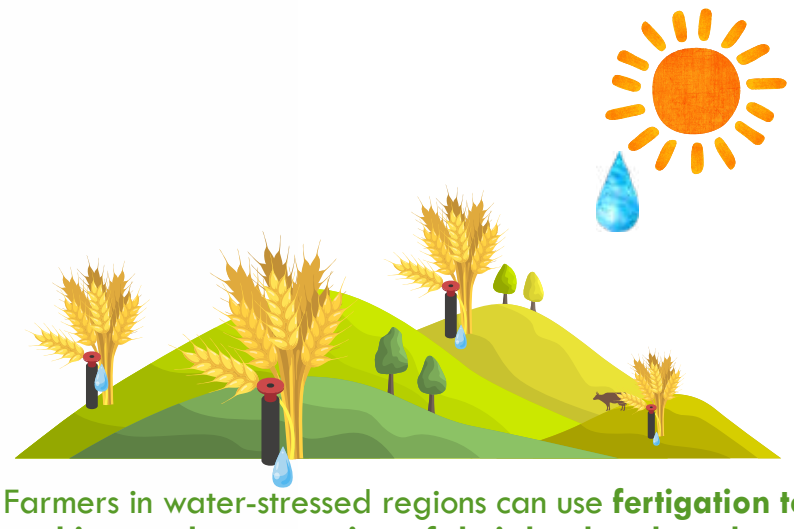


Fertigation can ensure high, stable crop yields and improve crop quality, allowing **farmers to consistently grow produce** in a wide variety of soils, climates and locations.



By delivering relatively small amounts of water to where plants need it, **microirrigation-based fertigation can reduce the volume of water used compared to conventional agricultural systems** and offers up to **90% water use efficiency.**

25% of the world's population across 17 countries are already living in regions of extremely high water-stress where there is a shortage of water. **By 2050 that number is predicted to rise to 52%** of the world's projected 9.7 billion population.



Farmers in water-stressed regions can use **fertigation to cultivate a larger portion of their land and produce more food with the same amount of water while using less fertilizer** per unit output. This enhances water productivity, nutrient use efficiency and farmers' incomes.

By using partially treated wastewater, **fertigation can turn wastewater into a valuable resource** and is considered the **most economically feasible and environmentally friendly method** of wastewater disposal.

Using microirrigation-based fertigation, vast areas of arid and semi-arid land and other marginal soils can be used to grow produce, helping to increase food security and local farmers' incomes.

By automating water and fertilizer applications, **fertigation reduces the amount of labor required to grow crops,** which combined with its increased fertilizer use efficiency, **can reduce overall growing costs.**

With an estimated **14.4 million hectares under microirrigation systems in 2018 globally,** which is less than **1% of the world's 1.57 billion hectares of cropland,** there is **huge potential for the wider adoption of fertigation.**

**If nutrients are not taken up by plants, they can be lost the environment in various ways ways such as through leaching, run-off or emissions.*