

More crops per drop

July 12 2013, by Hannah Schmidt

A solution is much needed to fight droughts and preserve crops. Researchers have now developed a device capable of checking the humidity in the soil, and releasing irrigation water as needed – just enough without wasting it. Scientists working under the EU funded research project [FLOW-AID](#) have worked hand-in-hand with farmers in six countries to test the system and exchange their knowledge.

"Last year when I tried the system for the first time, I discovered that it provided me with just the right amount of water at the right time," reports Elias Zacharias a wine farmer from Nemea, Greece. Since the system was installed, Elias can check the soil using his smartphone, and he can even activate the irrigation remotely, if needed.

The device has been complemented by a piece of software which takes into account the local context, such as plant properties and soil characteristics. This means, the system is also of value in the Netherlands, where farmers need to limit their [water usage](#) due to new EU legislation. Indeed, by 2027, no water contaminated with fertiliser or pesticides is allowed to leak into the environment. This seems like a good deal. But it is difficult to handle when you are growing your plants in an open system like on a field or a greenhouse, which are not in a closed container.

Jos Balendonck, sensing and water management expert at the University of Wageningen, the Netherlands, who is also the project coordinator, is optimistic: "The experiments we did in all these countries during the project have shown that we can save between 10% and 40% of water.

This is an enormous improvement of [water use](#) efficiency. And it also works for fertilisers. With this device they can measure their leakage and make sure that no remnants of [fertilisers](#) leak into the ground."

The smart [irrigation system](#) helped already farmers in several European countries to save water and fertiliser and to improve their harvest. This is good news not only for the farmer, but also for the public and for the environment.

Provided by Youris.com

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