

Aqua4D says there is "huge potential" to improve water sustainability in drought-ridden Chile - one of the world's biggest fruit exporters - using innovative technologies.

The Switzerland-based company, whose solutions allow water to be saved even in high salinity conditions, said that the South American country has some of the most critical conditions regarding water in the world and urgently needs to incorporate new methods and systems to be more efficient.

Speaking to FreshFruitPortal.com ahead of the inaugural [Agricultural Water Summit](#) - which will take place in Chile later this year and where [Aqua4D](#) will be exhibiting - marketing director Javier Meyer explained how the organization's "ground-breaking" technology can provide huge benefits to growers.

"Water management is a fundamental aspect in the daily life of the agricultural sector, where each step in the production chain increasingly requires more efficiency," he said.

"In this sense, I believe that the implementation of smart technologies is an important and necessary step, and a big part of the attention should be on being more efficient in water management.

"We must break old paradigms and learn to do things the right way, to save our natural resources, heal the damage caused by the bad practices and excessive use of chemical products, and improve yields and productivity in a sustainable way."

Meyer says Aqua4D's technology allows growers to do just that.

"Our technology treats the water without changing its chemistry. We just subtly change the molecular structure of the water - not adding or taking away anything - but the impact on the soil and the crops is huge," he said.

"The originality of Aqua4D is that it is a clean technology free of chemicals and with very low energy consumption, to solve some of the main problems in agriculture in a sustainable way."

Solving salinity issues with less water

Aqua4D started out focused on solutions for farming in saline conditions - historically a common issue in agriculture that is often caused by droughts or excessive use of fertilizers or other chemicals.

Their modular water-smart technology works by dissolving minerals and organic matter into the irrigation water, which minimizes crystallization around the plant roots while also improving water retention in the soil or substrate.

The process also helps to avoid clogging in pipes and leads to more homogenous irrigation.

"The plant can grow well even being irrigated by saline water or in high salinity soil conditions - that's huge," Meyer said.

"Something else that is very important is that usually the recommendation for high saline conditions is to wash the soils with more water, which is not really sustainable.

"But by dissolving the salt crystals, they simply leach away in the water, so we don't need to do the washing process. This is something that's very unique to us - we're solving the salinity issues, but at the same time we're saving water in the process."

Many Aqua4D customers are those looking to solve salinity-related problems, but increasingly the company is receiving a lot of interest from growers all around the world who are simply looking to be more sustainable by optimizing their irrigation process.

By improving soil conditions and irrigation efficiency, Meyer says that growers can reduce their water use on average 30%, and sometimes even more, like recent cases in Spain.

"We're bringing sustainability and corporate social responsibility to growers and to companies because they are growing with less water and less chemicals, using only what they need. We are basically going to turn your overall irrigation systems into something more efficient and help you to move into precision irrigation at the very highest level," he said.

The company is already well established in European countries like France and the Netherlands, and currently it has a special focus in arid and semi-arid areas such as California, Chile, Africa and Central Asia.

In these places, a shortage of water - apart from the known problems of salts and soil health - generates a high demand for innovative technology.

Huge potential in Chile

Aqua4D expanded into Chile last year with the support of IST Group. It has an increasing

number of projects on various crops, and has seen "excellent results" regarding water saving and reducing soil salinity.

"It's an interesting mix in Chile, because you have some of the most critical conditions regarding water in the world - it's a super dry area - and at the same time you have a high level of fruit production and exports. So, they need to find solutions," he said.

"We're just starting there, but the potential is huge. So we're putting a lot of effort into Chile, and that is one of the reasons why we wanted to take part in the Agricultural Water Summit."

These kinds of events that give special attention to water, he explained, are "very necessary" in the industry.

"The Agricultural Water Summit is an excellent platform, backed by a company with several successful events. The idea for us is to present, both to farmers and companies as well as to government entities and organizations, how Aqua4D can contribute as well as collaborate with other smart technologies in this great challenge of our times.

"Although this challenge has a special impact in Chile, it is everyone's responsibility - on a global scale."

The Agricultural Water Summit will take place on Sept. 22 in the Hotel Sun Monticello Conference Center in San Francisco de Mostazal, close to the capital Santiago.

For more information, please visit www.agwatersummit.com.