Pioneering blueberry irrigation research using wireless sensors has slashed water use by 70%, claim researchers at Chile's Universidad Católica de la Santísima Concepción (UCSC).

Project team leader Carlos Hernández described the iniative, employing artificial intelligence techniques, as "watering almost to the letter."

A network of ground sensors were inserted in the soil to discover plants' irrigation needs, monitor demand and optimize water use remotely.

"This innovative mechanism would reduce by about 70% the amount of water required to irrigate these crops, because the blueberry is a fruit whose plant needs to develop optimally, using high volumes of water," he said.

The Chilean Government's Agricultural Innovation Foundation (FIA) executive Rodolfo Cortés, described it as a visionary project.

"Efficient use of water is vital to the competitiveness of the sector, even more so given the current weather conditions, where the country is affected by a drought with 106 municipalities declared an agriculture emergency."

FIA, which supported the project, said the research methodology could be adapted to create a prototype for use in blueberry plantations relatively cheaply.

Blueberries were Chile's third largest fruit export in 2011 reaching a value of US$337 million, a 21% year-on-year increase, with volumes rising by 34%, according to the Office of Agriculture Studies and Policy (ODEPA).

Related story: Chile looks to offset blueberry losses with volcanic soil research

www.freshfruitportal.com