

MEDIA RELEASE

AI-guided laser weed zapper debuts at FIRA USA expo

Technology that uses Artificial Intelligence (AI) to target weeds and zap them with a laser will be showcased among cutting-edge robotics at the FIRA USA exhibition in Sacramento, California, from 22 to 24 October 2024.

Called Map and Zap[®], the weeding system has been developed by New Zealand research institute AgResearch to help address the significant global issue of weeds in agriculture, and to provide a sustainable alternative to herbicides.

“We don’t expect a system like Map and Zap[®] to replace the use of chemicals in agriculture, but it’s going to reduce the use of those chemicals over time,” says Map and Zap[®] founder Kioumars Ghamkhar.

“The trained AI that we use can distinguish between different species of early stage weeds, so that it targets only those plants that are unwanted. It does this by drawing on an extensive catalogue of weeds compiled over decades by researchers. Like *The Terminator*, once the target is identified, the system guides the laser to the weed and kills it.”

“Another beauty of Map and Zap[®] is that the unit can be fitted to the likes of a tractor or robot to suit the food production system it is operating in, such as a vineyard, an orchard, or a field growing vegetables or crops such as oilseeds.”

The system has been designed to be light weight and agile with the ability to control weeds under-vine and under horticulture and crop canopies. The system is battery powered and energy efficient.

A prototype of the Map and Zap[®] system, which has a patent pending, has been put through its paces during trials on vineyards in New Zealand. The integrated system has been successfully demonstrated.

“It’s hugely exciting for us to now be able to showcase Map and Zap[®] to audiences in the United States and beyond, at an event that is all about inspiring innovation in agriculture.”

AgResearch is now looking for potential investors to take the Map and Zap[®] technology to the US and Australian markets. The technology is seen as being well-suited to key challenges that food producers are facing in California.

For further information about Map and Zap[®], or to discuss investment opportunities, please contact: Dougal Ferguson, Commercialisation Manager. Email: dougal.ferguson@agresearch.co.nz