

AUSTRALIA

Weed detecting robot

At Gatton's Rugby Farms in Queensland, RIPPA, a weed and foreign object detecting robot has been trialed. The 250 kilogram solar-powered robot also has the ability to collect data using sensors that can map an area of a crop. The University of Sydney's Australian Centre for Field Robotics Director of Innovation and Research Professor Salah Sukkarieh said RIPPA can also use this data to estimate yield and fertilize crops.

Professor Sukkarieh said the robot has a collection of sensors and sophisticated algorithms which can detect weeds in the crop, along with foreign objects such as a stone, glass or metal. He further said the next step was to build systems that can remove the weed and the foreign object.

RIPPA (Robot for Intelligent Perception and Precision Application) spent three hours at Rugby Farms moving up and down lettuce crop rows, conveying extensive data live to the laptop of Sydney university researchers. Professor Sukkarieh said eventually, RIPPA will be affordable to farmers.

The research and commission of RIPPA was co-funded by Horticulture Innovation Australia and the Australian Government. Horticulture Innovation Research and Development team lead Dr



Anthony Kachenko said RIPPA will help the critical issues of the horticulture industry. He further said, "It can identify weeds and target spraying, so eventually it can help to reduce the amount of chemicals used on crops," he said.

Pollination to be managed by Robots for high yield

A four-year study by the University of Sydney's Australian Centre for Field Robotics has found two Australian-made 1.5m-high robots can uncover the best locations to place beehives in order to improve yields.

The robots were trialed on almond, apple, lychee, custard apple, avocado and banana farms, with the robots concurrently working on each side of tree rows using cameras, lasers and software to create a series of algorithms to identify fruit.

The robots were able to identify yield variations that were the result of a lack of pollination. "This is a very exciting finding as this technology has the ability to help growers identify issues such as a lack of pollination and address them quickly," John Lloyd, CEO of grower-owned body Horticulture Innovation Australia (Hort Innovation) said.

By monitoring the data patterns produced by these robots growers can effectively help ensure the best yield possible. The robots could also identify fruit and nuts with an accuracy rate between 60 and 96% depending on sunlight and leaf coverage, which Lloyd said paves the way for autonomous tree fruit and nut picking.

This study has provided a real window into a not too distant future where labour hire shortages and associated costs no longer need to be key concerns for tree crop growers. Ultimately, this technology will enable growers to save time and money, allowing growers to get their produce to consumers more efficiently while increasing their overall farm gate returns.



CHILE

Organic lemon shortfall

Chilean supplies have found way to Europe with South African organic lemon growers struggling with black spot disease. As Chilean lemons begin to return to European shelves, Dutch organics specialist Eosta has found itself in a strong position on the market due to a shortage of organic lemons from South Africa.

Citrus product manager Pieter de Keijzer commented: "As most of our customer's knowledge, we have a very limited supply of South African lemons this year. This is unfortunate particularly when you realize how strong the demand is for premium organic lemons. The good news is that we are once again in a position to offer product from our growers in Chile and from what I have seen, the quality and quantity is looking good.

The shortage from South Africa is due to issues with citrus black spot disease. "It is terrible for our growers in South Africa," said Eosta's sustainability and communications manager, Michaël Wilde. "But now we are the only ones with organic lemons, so we are in a very strong market position."

The first containers of Chilean organic lemons are set to arrive imminently, with the season running into September.



"From then on, we will have the wonderful Interdonato lemons from our Turkish Nature & More grower Taner," added de Keijzer.

FRANCE

Bonduelle opens doors to public

French vegetable giant Bonduelle has decided to welcome the public into its factories in an effort to boost consumption of healthy foods among youngsters, report European Supermarket News. The company opened the doors of two of its

factories to the public as part of an event called 'J'ai 9 Ans et J'aime Manger des Légumes' (I'm 9 and I love eating vegetables). Tours are available to Bonduelle factories in Bordères and Labenne, including educational presentations for children on the role played by fruit and vegetables as part of a balanced diet. The company is also offering food education in schools across the south-west of France, providing children with an insight into careers in the food industry.

NEW ZEALAND

Kiwi fruit exports resumed to China

While New Zealand prepares to export kiwifruit to China, revised pre-export kiwifruit checking processes are in place. This is in response to the notification regarding the discovery of the fungus *Neofabraea actinidiae*.

Neofabraea actinidiae is a fungus that causes fruit to rot in long term storage and has no food safety implications. These processes have been approved by the Ministry for Primary Industries which is notifying the Chinese authorities. NZ kiwifruit suppliers are now rechecking China supply fruit under these new processes and Zespri shipping is due to resume to China soon.

A spokesperson from Zespri said: "Sales of kiwifruit which have cleared into



China continue as normal and our sales season continues positively in China, on track to exceed last year's volume, with another 7 million trays forecast to export to China this season. Zespri's rigorous quality systems for checking and rechecking our fruit means this affects only a tiny fraction of the 135 million trays we're shipping this season.

There have been two more finds of *Neofabraea actinidiae* from fruit which arrived in market before the new checking procedures were put in place and it is possible there may be more finds. Meanwhile shipments of kiwifruit continue to clear the border and this issue has only affected around 2% of the fruit which has arrived in China to date."

PERU

Quality of organic Ginger from Peru stands out from other producing countries

The season for Peruvian organic ginger looks very promising and tropical specialist Orrantia feels confident about the quality. Tropical Specialists has been importing organic ginger from Peru for three years. The product arrives in containers and is shipped by air across the United States. According to him "Volumes have gone up every year in the past three years," shared Orrantia. "Increasingly, people learn about the



unique elements of Peru's organic ginger, resulting in an increase in demand. On average, we are shipping one to two containers per month."

"Between now and the end of the year, we import organic ginger from Peru," says Luis Orrantia. "There is no doubt that the quality of organic ginger from Peru stands out from other producing countries. It really is a specialty item that has a unique flavor," Orrantia added. The product from Peru is thinner and spicier than ginger from China for instance.

To guarantee a high-quality product, Tropical Specialists has a partnership with the grower and the packing house. According to him they have full control of the development of the product from seed to end," Orrantia mentioned.



POLAND

Citrus Fruit demand

Citrus fruit demand in the Polish market during the summer months, including mandarins and clementines, is weak. Mohamed Marawan from Mazafruit said that this is because Polish consumers only have eyes for domestic seasonal fruit such as strawberries and cherries while they are available.

"Timing and weather is everything in the Polish market. Once the weather changes, consumers will switch back to fruit such as citrus, which is usually around October. Polish consumption is very driven by the seasons, along with weather conditions. Consumers here prefer domestic fruit when in season and are not interested in peaches or nectarines from Spain when their own stone fruit is available. They stick to their own strawberries, cherries, peaches, nectarines because they miss them. However, demand for fresh orange juice stays strong which is why I am currently sourcing oranges from Greece for juicing," said Marawan.

Although the citrus season has finished in the northern hemisphere, Mazafruit has been working very closely with Greece and recently made a large deal with a Greek source to buy all of their remaining supply of oranges for juicing.

Orange prices have been rising as they are now out of season, but customers have been willing to pay because there is no other source. This will continue through to October when the Spanish season will resume.

TURKEY

Plans to boost growth of Black Sea blueberry

According to a report from Forestry and Water Affairs Minister, Veysel Eroglu, the ministry is preparing an action plan to establish blueberry orchards in the Black Sea Region up to 2019. The plan also aims to increase the diversity of agricultural products grown in the region. As part of the plan this year 60 decares have been planted, in 2017, 240 decares will be planted, in 2018- 550 decares, in 2019 a total of 2,000 decares will have been planted," said Eroglu.

In Trabzon and Rize 400,000 blueberry seedling are being produced at a nursery, 120,000 of these will be distributed to growers. Eroglu emphasized the potential of wild blueberry growing in the region, "Livelihood from agriculture in the region will be ensured by providing the necessary infrastructure support for increasing the production and processing potential of our villagers. Existing wild blueberry fields will be rehabilitated in



Artvin, Giresun, Ordu, Rize and Trabzon," he said.

The region's university is performing research into expanding the agricultural product range. According to Eroglu, the aim of this isn't just to increase economic income, but also to create a greener, cleaner environment for citizens.

USA

Washington set for larger apple crop

According to a pre-season estimate from the Washington State Tree Fruit Association, Washington State is set for a much bigger apple crop in 2016, but it will not exceed the record volume shipped two years ago.

WSTFA has forecasted a crop of 132.9m 40lb (18kg) cartons, up 15 % on 2015's 115m-carton crop, but still down 6% on the bumper crop of 2014, when 141.8m cartons were shipped.

Washington apple growers expect to deliver a large crop of beautiful apples to consumers this year. Weather in 2016 has been favourable for the development of a high-quality crop with good colour and storability. In addition, harvest has begun one to two weeks earlier as a result of those conditions.

While Red Delicious remains the dominant variety in Washington State, accounting for a projected 25 % of total production, the varietal profile continues to diversify. Gala is now close behind Red Delicious at 23 % followed by Fuji 14 % and Granny Smith 13%.

The Washington apple harvest typically begins in early August and continues into November, and WSTFA cautioned that the forecast is still subject to several months of variable weather, which can affect the final season's crop. ♦

