

**PMAC weekly update 23rd to 30th April February**

1. **Government agencies**: ICPR changes, Pea weevil eradication on track
2. **New Zealand News:**  Primary Sector Council announced; Agriculture Minister heads to Australia; Export NZ April Trade Update; New tool for Food & Beverage exporters; Early predictions for a record-breaking kiwifruit season; Zespri heads for record breaking season in China; Seeka shareholder Farmind to cut stake to reduce foreign ownership; Spraying without chemicals, residues or health and safety issues
3. **International news:** USDA re-establishes Fruit and Vegetable Industry Advisory Committee; a 58 strong sales tam Europe uses Dutch calculation model for risk assessment of pesticides; EU and Mexico agree on new free trade pact; US China Tariffs; "A new plant health framework impacting the movement of seed"; Russia approves Bayer-Monsanto deal; California commodities to be hit hard by Chinese tariffs; US: New campaign to address "plant blindness" among youth; China: The demand for sustainable fruit is growing; China imported 22% more fruit in the first two months of the year; The Chinese market is the toughest of them all; Scientist creates faster way to fingerprint foodborne pathogens; Indian study finds antibiotic resistant gene in food samples; US: Big Data: a new approach to improving global food safety; UK: Red Tractor launches first TV ads; US: Advocate for change to establish a Food Safety Culture; US Romaine lettuce E. coli outbreak quite relentless; North America: Grower recalls microgreens over listeria concerns; US: European listeriosis outbreak blamed on frozen corn: 6 dead; AU: Rockmelon Listeriosis investigation summary; US study finds a surprising link between food waste and diet quality; Wageningen University publishes booklet on plant breeding techniques; UK Study: Fresh produce bacteria can thrive despite routine chlorine sanitizing.

***Editor’s comments***

*It seems to me that when our main exporters are busy exporting there is often less news from New Zealand. For the second week in a row there has been substantially more international news than local news. In the New Zealand section there is however an interesting article about Zespri’s growth in China and their future plans. It shows what is needed to be successful.*

*In the international section there are three interesting areas. The first is an article about work being done in the USA to remedy young people’s plant blindness and interest them in careers in Horticulture. It is funded by 150 organisations- New Zealand is obviously not the only country that needs skilled labour.*

*Then the food safety section has a disturbing number of food poisoning stories from the USA and Australia. One talk about pre-emptive recalls and another about the effect a domestic scare can have on export markets. A sobering reminder that all businesses in the supply chain need to be taking food safety seriously.*

*Last but not least is access to a booklet on plant breeding techniques from Wageningen University. This is designed to present the facts about newer techniques and hopefully allay fears. The article points out that with climate change these techniques will be needed so plant breeders can provide food plants for the future. Obtaining Social licence to use these tools is crucial.*

1. **Agency news**



* 1. **ICPR changes**

Changes have been made to the following ICPR’s for:

* Sri Lanka with commodity specific requirements added for Allium cepa  under section 4.1.1.
* Russia has been updated with commodity specific requirements for select fresh fruit imports have been updated to include a new additional declaration for production site freedom from Halyomorpha halys (Brown marmorated stink bug).
* USA with import requirements for fresh persimmons to the USA updated to reflect changes in the USDA Fruits and Vegetables manual.

**If you need any further clarification please contact your Independent Verification Agency in the first instance.**

* 1. **Pea weevil eradication on track**

MPI and the pea growing industry are on track to eradicate the pest insect pea weevil from New Zealand. The pest was first discovered in the Wairarapa in 2016 and has been subject to an eradication programme since then. MPI trapping programme found only 15 pea weevils from 2 neighbouring sites this season. That is significantly down on the 1,735 pea weevils which were found across 11 sites last season.

"MPI thinks that is largely due to the Controlled Area Notice currently in place which restricts the growing of peas in the Wairarapa up to Pahiatua. They intend to maintain these restrictions until we are confident that we can eradicate the pest from New Zealand". MPI understands the restrictions have had an impact on the pea growing industry and wider Wairarapa community and MPI would like to recognise their efforts and support. [Full article available here](http://mpi.govt.nz/news-and-resources/media-releases/pea-weevil-eradication-on-track/)



1. **New Zealand News**



* 1. **Primary Sector Council announced**

A group of visionary agribusiness leaders is set to help our primary sector capture more value from its work, Minister of Agriculture and Rural Communities Damien O’Connor says. Mr O’Connor last week announced the membership of the Primary Sector Council, which will provide independent strategic advice to the Government on issues confronting the primary industries – with an immediate focus on developing a sector-wide vision.

“This group of 15 innovative leaders from across the sector will provide fresh thinking at a time when New Zealand’s primary sector is facing unprecedented levels of change. “The council will be chaired by Lain Jager, former Chief Executive of Zespri Group and will have its first meeting in late May. Once it has developed a sector-wide vision it will work with each sector to develop individual strategic plans.  [Full article available here](https://beehive.govt.nz/release/primary-sector-council-announced)

Associate Agriculture Minister Meka Whaitiri welcomes the announcement of the Primary Sector Council. “I want to ensure we meet our immediate and future skills needs in the primary industries – particularly growing science, technology and innovation skill development. “There is significant opportunity to lift the productivity within the Maori agribusiness sector of which much of the land is Maori freehold land with multiple owners presenting additional challenges.

* 1. **Agriculture Minister heads to Australia**

Agriculture Minister Damien O’Connor went to Brisbane last week to meet with his Australian Government counterparts. Mr O’Connor attended the annual Agriculture Ministers’ Forum (AGMIN) from 26-27 April to discuss common approaches to biosecurity, climate change and international trading conditions.

Discussions at the sixth AGMIN will centre on the similar issues and opportunities facing the agricultural sectors in Australia and New Zealand. “During the talks we will look for new opportunities for our two countries to work together to support our agricultural sectors.” [Full article available here](https://beehive.govt.nz/release/agriculture-minister-heads-australia)

**Export NZ** full newsletter [click here](http://www.exportnz.org.nz/news-and-info)

* 1. **April Trade Update**

It has been an incredibly active month in the trade policy arena with a lot of activity internationally and back home the Government is trying to define what a progressive FTA agenda looks like.  Consultations will begin soon.  It looks as though ISDS is out but gender, indigenous people, SMEs, climate change, environment and labour standards are in.

#### EU FTA We continue to expect an announcement on the launch of this negotiation in late May.

#### CPTPP Most members are making progress towards ratification of this agreement.

#### Pacific Alliance Real negotiations are happening and progress appears to be being made.

#### RCEP We have been pretty negative about the Regional Comprehensive Economic Partnership negotiations because the level of ambition on goods and services trade liberalisation is well below what we would normally accept in a FTA.  But we get the sense that the Government is softening us up for an outcome this year in this negotiation.  The arguments being used are that while the access being offered by India is far from ideal it is better than we currently enjoy.   RCEP would allow members to keep India adhering to WTO type rules. [Full article available here](https://www.exportnz.org.nz/news-and-information/news/2018/trade-updates-2018/trade-update-april?utm_medium=email&utm_campaign=The%20Exporter%20-%20April%202018&utm_content=The%20Exporter%20-%20April%202018+CID_848d335914b8a6552ce55c1b51e8eb33&utm_source=Campaign%20Monitor&utm_term=More)

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* 1. [**New tool for Food & Beverage exporters**](http://businessnz.cmail20.com/t/r-l-jyjyihhy-aekytdhr-f/)

The Exporter Regulatory Advice Service at the Ministry for Primary Industries (MPI) has recently released a new online tool that can help food and beverage’ exporters.  It’s on the processed foods section of the MPI website, however the content pertains to most exporters who would operate under MPI’s frameworks (e.g. animal products, plant products etc.).

The [Export Market Requirements Map](http://businessnz.cmail20.com/t/r-l-jyjyihhy-aekytdhr-z/) shows OMARs, ICPRs and FYI’s for each export market in one easy to find place. This interactive map is to help food exporters find the requirements of overseas markets. You can search for markets by name or click on an area of the map. Pop-up boxes will appear, containing links to the information you need.

**Industry news**

* 1. **Early predictions for a record-breaking kiwifruit season**

Zespri says this year's crop volumes could be a record breaker, while this year’s New Zealand-grown crop is expected to be about 20 million trays – 70,000 tonnes – higher than last year. The company's Chief Grower & Alliances Officer, Dave Courtney, says increased levels of Green and 7-10 million trays more of SunGold, could possibly NZ volumes possibly over 2016/17 volumes.

Both the company’s two biggest export markets, Japan and China, are forecast to grow strongly, with repeat purchasing very strong from consumers.

"Zespri is also looking for solid growth across the rest of Asia as well as Europe and North America, where supply did not meet demand last year," Mr Courtney said. "Demand for safe, healthy fruit continues to grow exponentially in China, in terms of both volume and value. However, our Japanese market is going great guns as well – we’ve seen a 30 percent sales growth there over the past four years."

Mr Courtney adds this season there is excellent quality levels and high taste across all varieties, and the industry is re-balancing the green-gold split. [Full article available here](http://www.freshplaza.com/article/192622/NZ-Early-predictions-for-a-record-breaking-kiwifruit-season)

* 1. **Zespri heads for record breaking season in China**

New Zealand kiwifruit in China attracts prices as high as $3.30 each. Zespri is on track to post record sales to China of $505 million to the end of the financial year in June and expects turnover to double in four years' time. With prices as high as $3.30 for one "jumbo" sized kiwifruit - at 150 grams not the size that Kiwis get to buy in their stores - China is viewed as a high value, premium market that is growing fast on the back of a rapidly rising middle class.

Zespri trade development executive based in Shanghai Cerie Zhu said seven chartered vessels were due to unload New Zealand-grown kiwifruit in Shanghai this year. The first two had been processed to consumers eager to buy the sought-after fruit, after a shortfall in Europe following a poor growing season. The final cargo will arrive by the end of next month.

Zespri's main offices are in Shanghai and Beijing, with regional representation in Guangzhou, Xian and Chongqing. These regional offices provide more support for distribution partners and retail customers in the regions. Zhu oversees the arrival of the fruit into the country, liaising with logistics giant Swire, which keeps supplies in a state-of-the-art coolstore near the port of Shanghai until it is released.

General manager for Greater China, Holly Brown, said there were now some world class facilities in some cities, especially those described as "tier one" such as Shanghai and Beijing, but elsewhere it was quite fragmented. "As you move into tier two, three and four it wouldn't look like what you see in the tier one cities. That's why Zespri partners with some pretty big players which allows us great confidence that our fruit and the cool chain integrity will be preserved all the way through."

Zespri was working with distribution partners to expand programmes in mainly tier two cities - Shenyang, Dalian, Qingdao, Zhengzhou, Xian, Chengdu, Hangzhou, Wuhan, Chongqing, Chengdu, Nanjing, Wuxi, Suzhou and Hangzhou. It was taking over packing, quality checking and repacking in these cities.  Brown said demand was well ahead of supply. Despite the fact China was the world's largest kiwifruit grower, Zespri's products commanded high prices.

"As our supply volumes come on we will see a shift, but the value will still be there. We would like to bring it into line where more and more consumers can access the product." "We hope not only to make it more accessible but also more consistent in its pricing. You can see very aggressive price positioning in e-commerce where consumer loyalty is different, and compare that with a high end retailer targeting a particular demographic - it can be quite different. There's also a seasonal factor that comes into play."

Brown said after selling in China for more than 15 years, Zespri's brand recognition was high. China was now neck and neck with Japan for number one export market. The 58-strong sales team was supported by marketing investment of more than $30 million to support its position as a leading fruit brand in China. Zespri has also set up its first direct retail relationship with retailer Fruit Day, which has 10 bricks and mortar stores and an online presence.

For the first time this season Zespri China will manage some of its inventory for its key accounts such as Fruit Day. This means it can match the fruit available to meet retail requirements, for example by supply phasing or ready-to-retail condition. [Full article available here](https://www.stuff.co.nz/business/farming/103328152/zespri-heads-for-record-china-kiwifruit-export-season)

* 1. **Seeka shareholder Farmind to cut stake to reduce foreign ownership**

At last week’s annual meeting, the Te Puke-based company told shareholders its Japanese investor Farmind will today transfer a 6.55 percent stake in Seeka to New Zealanders in an off-market trade to reduce the company's foreign shareholding base. Farmind owned 16 percent as at Dec. 31, making it Seeka's biggest shareholder, but after the transaction, it will drop to second behind Sumifru's 12 percent holding.

More than 25 percent of Seeka's shares are owned by overseas people, and "there is potential for this to have a negative effect on Seeka given the nature of our business," the company said in a slide accompanying chair Fred Hutchings' presentation published on the NZX.

The company's focus on foreign ownership comes as politicians review a proposed amendment to the legislation to tighten the foreign investment screening regime. Farmind's decision comes after local fruit exporter Scales Corp chief Andy Borland this month said his company's classification as a 'New Zealand person' under the legislation was an advantage in acquiring domestic agriculture businesses.

[Full article available here](http://www.freshplaza.com/article/193672/Seeka-shareholder-Farmind-to-cut-stake-to-reduce-foreign-ownership)

**Other**

* 1. **Spraying without chemicals, residues or health and safety issues**

Biofume is a New Zealand based company which specialises in technology relating to the control of fungus, bacteria and ethylene removal in produce storage facilities. The company has now developed an ozone system which can be applied to a sprayer for plant and crop disinfection along with deterring insects. This means the sprayer uses no chemicals. No residues and no health and safety issues.

"This is the first self-propelled sprayer to have been converted to an ozone system in the world I believe and this technology will revolutionise chemical spraying," explains Roger Cherry from the company. "We are also working with a company which produces Probiotics and the reason for this is: In some cases we need greater residual protection so we spray the crop with the ozone sprayer then run over the crop with a probiotic which gives us significant protection saving the need for sprays for long periods of time. The probiotics populate the clean plant surfaces for greater protection. This provides fantastic protection on crops using no chemicals whatsoever."

Biofume have also launched a bird deterrent system which is simple to add to large fruit and food facilities providing significant bird reduction from 90-99% along with general pests and insects.
Birds are repelled by ozone as their respiratory systems are highly sensitive to it. Most bird problems are associated with birds roosting, particularly at night. The Enviro Bird Control unit generates and deploys ozone at low levels around the areas birds’ roost which makes it unpleasant for them and they depart.



1. **International news**

**Comment**

**Regulatory**

* 1. **USDA re-establishes Fruit and Vegetable Industry Advisory Committee**

The U.S. Department of Agriculture will re-establish the charter for the Fruit and Vegetable Industry Advisory Committee (FVIAC). FVIAC was established by USDA in 2001 to examine issues facing the fruit and vegetable industry and to provide ideas on ways to improve programs to better meet the changing needs of the produce industry. The recent charter expired July 2017. Eligible nominees for the FVIAC include anyone actively working in the fruit and vegetable industry as growers, shippers, wholesalers, distributors, brokers, retailers, restaurant representatives, processors, fresh cut processors, foodservice suppliers, representatives of state departments of agriculture and members of trade associations. [Full article available here](http://www.hortidaily.com/article/42769/USDA-reestablishes-Fruit-and-Vegetable-Industry-Advisory-Committee)

* 1. **Europe uses Dutch calculation model for risk assessment of pesticides**

The European Food Safety Authority (EFSA) will be using a Dutch calculation model, which maps the risks posed to consumers by the cumulative exposure to multiple pesticide residues in food. The Monte Carlo Risk Assessment (MCRA) program is an independent research tool from the Dutch government. Our food contains various pesticide residues and the EFSA wishes to know the extent of the health risks involved. The organisation assesses the risks for the food chain and food safety in Europe, and provides the European Commission, European Parliament and individual member states with advice in the field of food safety. It is thought that pesticides which cause the same specific effects can produce cumulative toxicity. The MCRA calculation model can analyse the cumulative effects of exposure to pesticide residues in food. [Full article available here](http://www.hortidaily.com/article/42725/Europe-uses-Dutch-calculation-model-for-risk-assessment-of-pesticides)

* 1. **EU and Mexico agree on new free trade pact**

The European Union and Mexico reached an agreement last week on a new free trade deal, a coup for both parties in the face of increased protectionism from the United States under President Donald Trump. The agreement in principle with Mexico follows a deal struck last year with Japan and comes ahead of talks next week with the Mercosur bloc of Argentina, Brazil, Paraguay and Uruguay.. [Full article available here](http://www.freshplaza.com/article/193347/EU-and-Mexico-agree-on-new-free-trade-pact)

* 1. **US China Tariffs**

Comment from the economist. Over the last few weeks the US has announced around US$50bn of tariffs on Chinese manufacturing exports. In return, China announced tariffs affecting roughly the same value of US exports of agricultural and aerospace goods. So where will the impact be felt?

Supply chain analysis can give us some answers. Many of China’s manufacturing exports to the US consist of components or raw materials whose value is created in another country and the final assembly and export are done from China. Based on the latest data, around 40% of the apparent value of China’s manufacturing exports is actually generated in other countries (mostly in Japan, South Korea and, notably, the US). So for every dollar of tariffs on Chinese manufacturing, around 40 cents ultimately affects other countries earlier in the supply chain. By contrast, for every dollar of tariffs on US farm exports, only around ten cents affects other countries. With mid-term elections approaching in the US, this asymmetry should prevent the trade barriers from escalating further.

* 1. **"A new plant health framework impacting the movement of seed"**

The movement of seed including treated seed is becoming increasingly important to the seed industry for commercial seeds, as well as for seed production and new variety development. At the same time, the phytosanitary requirements for seed movement are becoming more challenging. The governing body of the International Plant Protection Convention (IPPC) adopted a new International Standard for Phytosanitary Measures (ISPM 38) on 6 April 2017.

The standard provides guidance to assist official National Plant Protection Organizations (NPPOs) on establishing procedures for phytosanitary import requirements; inspection, sampling and testing of seeds; and on the phytosanitary certification of seeds for export and re-export.

At the European level, a new regulation on protective measures against pests of plants (EU/2016/2031) entered into force 14 December 2016 and its date of application is 14 December 2019. During this timeframe, many secondary acts shall be adopted in order to complement the basic regulation. The aim of the Community Plant Health Regime, aligned with international standards (including ISPMs), is to protect the EU against the harm caused by the entry, establishment and spread of harmful organisms injurious to plants and plant products. [Full article available here](http://european-seed.com/esa-workshop-new-plant-health-framework-impacting-movement-seed/)

* 1. **Russia approves Bayer-Monsanto deal**

Russia’s antitrust regulator FAS has approved Bayer’s planned takeover of Monsanto, the German drugs and crop chemicals maker said, as it enters the home stretch to closing the $62.5 billion deal.
“Bayer has agreed to enable the transfer of defined technologies to Russian recipients in the area of seeds breeding and digital farming for a period of five years,” the company said in a statement.

As part of these concessions, it would share some genetic know-how on corn, wheat, oil seed rape, soybean and vegetable seeds. It would also grant “non-discriminatory” access to digital farming technologies once they were available in Russia, Bayer said. [Full article available here](http://www.hortidaily.com/article/42729/Russia-approves-Bayer-Monsanto-deal)

**Business**

* 1. **California commodities to be hit hard by Chinese tariffs**

The group Farmers for Free Trade asserts that Californian commodities such as pistachios, almonds and wine will be among the hardest hit by the roughly $500 million in new duties on US agricultural goods. New tariffs of 15 to 25 percent were attached to goods such as almonds, walnuts, pistachios, grapes, oranges, apples, cherries, wine, ginseng and pork. The tariffs announced April 2 were in response to new US duties on imported steel and aluminium.

“The tariffs described in this report are a tax on American farmers,” states the report. “They increase the cost of exporting, depress the prices of farm futures, and end up hurting the bottom lines of farmers in states across the country. “ They also incentivize trading partners like China to look to other markets for their imports. That means that trading relationships that took decades to develop can evaporate overnight. And as many farmers and trade exports know, once you lose an export market it doesn’t come back immediately. In fact, it often takes many years for trading relationships to recover.” Commodities cited in the report include cherries ($28 million in potential additional duties), oranges ($15 million), grapes ($12 million), apples ($8 million), ginseng ($7 million), and walnuts ($4 million). [Full article available here](http://www.freshplaza.com/article/193593/California-commodities-to-be-hit-hard-by-Chinese-tariffs)

* 1. **US: New campaign to address "plant blindness" among youth**

Plants are critical to the future of the planet, but absent from the minds of most American youth, resulting in a perilous workforce gap in the horticulture industry. A new national campaign, BLOOM!, has been launched to excite young people about the power of plants and ensure horticulture – along with the millions who depend on it – thrives well into the future. BLOOM! is the first major initiative of Seed Your Future, a coalition of more than 150 partners – including horticulture companies, gardening organizations, schools, colleges, universities, public gardens, youth organizations, non-profit organizations and individual advocates – united in their mission to promote horticulture and the diverse careers the industry offers.

Research shows that the average American can recognize 1,000 brand names and logos, but fewer than 10 local plants. “Plant blindness” – a lack of awareness of plants – is particularly significant among U.S. youth, a majority of whom have never heard of the term “horticulture,” and the industry is experiencing the impact. Nearly 58,000 jobs in horticulture are expected to become available annually for the next five years, but only 61 percent are expected to be filled. At the same time, higher education and horticulture training programs are experiencing declining enrolment.

“Through eye-catching, fact-based content delivered both inside and outside of the classroom, BLOOM! is educating and inspiring young people and the adults in their lives about the power of plants and the career opportunities behind them. The campaign website – WeAreBLOOM.org – serves as a digital hub for all campaign activity and hosts a suite of entertaining, educational resources to interest kids, teachers, parents and youth program leaders. [Full article available here](http://www.floraldaily.com/article/15084/US-New-campaign-to-address-plant-blindness-among-youth)

  **China**

* 1. **China: The demand for sustainable fruit is growing**

Consumers have increased their demand for high-quality agricultural products as a result of economic development in China and in the world. There is a growing demand for environmentally friendly food products, and green food products. It has become trendy to purchase green food that is beneficial for one's health. More and more consumers choose the green option. Green food products hold enormous potential for market growth, whether domestic or international. [Full article available here](http://www.freshplaza.com/article/193329/China-The-demand-for-sustainable-fruit-is-growing)

* 1. **China imported 22% more fruit in the first two months of the year**

During the first two months of 2018, Chinese fruit imports increased by 22% in volume and 58% in value. The main products that contributed to this growth were cherries, oranges, blueberries, and bananas. [Full article available here](http://www.freshplaza.com/article/193286/China-imported-22-procent-more-fruit-in-the-first-two-months-of-the-year)

* 1. **Growing Chinese investment in overseas agriculture**

The demand of China's agricultural industry for resources and technology, combined with the relatively large influence of financial institutions, is encouraging China's agricultural industry and food product industry to grow overseas investment. This trend reflects the growing global ambition of Chinese entrepreneurs. It also attracts the attention of the global business world and government leaders everywhere.

Investment data shows that Chinese investment in overseas agricultural industry, forestry and fishing, increased from 300 million USD in 2009 to 3.3 billion USD in 2016. And these numbers still do not do justice to the scale of foreign investment in overseas agricultural industry as they do not include data for food processing and trade companies in manufacturing and service industries. The Chinese Department of Agriculture circulated an announcement that shows there were more than 1,300 Chinese companies registered overseas in agricultural, forestry, and fishing with an overseas investment value of 2.6 billion USD. [Please click here for the complete article](http://https:/www.ers.usda.gov/amber-waves/2018/april/china-s-agricultural-investment-abroad-is-rising/)

* 1. **The Chinese market is the toughest of them all**

This has not been too bad a season for Australian grapes, according to Joe Tullio from Australia Fruits. The grape season is drawing to a close with only a few of the late varieties still to be harvested. The biggest markets for Australia Fruits' grapes are Thailand, China, the Pacific Islands, the Middle East and Indonesia. "The Chinese market is the toughest of them all," according to Joe. "It is based on returns rather than pre-fixed prices. The Chinese indicate a price but at the end of it all it turns into a consignment-based market if you want to send volume."

Quality has been good this year as it’s been dry which is good for the harvest. Joe says that there is always a lot product from our competitors, Chile and South Africa, on the Chinese market, the buyers are very active, but the final price is market orientated and us Westerners are not so used to this.

There is more and more grapes and different varieties being planted each year and Joe reckons that eventually the grape range will be seen as just black, red and white grapes and the varieties will not matter to the consumer as long as it eats and presents well. "It will become like cherries where there are many varieties and people get confused. [Full article available here](http://www.freshplaza.com/article/193414/The-Chinese-market-is-the-toughest-of-them-all)

 **Food safety**

* 1. **Scientist creates faster way to fingerprint foodborne pathogens**

University of Georgia food scientist Deng has created a system that can identify subtypes of foodborne pathogens in a fraction of the time taken by traditional methods. Detecting and subtyping a pathogen are separate processes now, but Deng has combined the two steps with “metagenomics analysis.”

Traditionally, the pathogen is separated from the food sample by growing cultures, which takes 24 to 48 hours. To shorten the culture process, researchers in his lab apply tiny magnetic beads coated with antibodies that pull the pathogen cells out. Then they amplify the DNA of the captured pathogen cells so they have enough DNA to sequence. “Using a new, very small sequencing tool that’s about the size of a USB drive, we can sequence while capturing the data in real time,” Deng said. The small sequencer generates enough data for pathogen detection and subtyping in about 90 minutes, he said. [Full article available here](http://www.foodsafetynews.com/2018/04/university-of-georgia-scientist-creates-new-system-to-id-foodborn-pathogens/#.Wt7kYohuaUk)

* 1. **Indian study finds antibiotic resistant gene in food samples**

Antibiotic drug resistance is assuming dangerous proportions at a global level, with India being one of the worst affected countries. A new study in India has found bacteria resistant to the most powerful antibiotics in fresh food samples of chicken, fish and vegetables. Scientists have also deciphered the mechanism by which a gene responsible for making disease-causing bacteria resistant to powerful antibacterial drugs can get transmitted to humans.

The new findings about the presence of bacteria resistant to colistin -currently, one of the antibiotics of last resort- in food samples, and insertion of resistant gene in bacteria called Klebsiella pneumoniae (which causes a range of infections in humans) were presented recently at an international conference. More than 30 countries have already reported presence of colistin-resistant bacteria in raw food samples, but this is the first time scientists have searched for these bugs in fresh food samples in India. a. [Full article available here](http://www.freshplaza.com/article/193586/Indian-study-finds-antibiotic-resistant-gene-in-food-samples)

* 1. **US: Big Data: a new approach to improving global food safety**

[*Agrilinks:*](https://www.agrilinks.org/post/big-data-new-approach-improve-global-food-safety) Big data can provide timely and innovative solutions to food safety issues. There are many definitions for big data; the WHO defines big data as “emerging use of rapidly collected, complex data in such unprecedented quantities that terabytes, petabytes or even zettabytes of storage may be required; the unique properties of big data are defined by four dimensions: volume, velocity, variety and veracity” This article talks about the use of big data particularly in providing traceability .

Read the full report at the [*agrilinks*](https://www.agrilinks.org/post/big-data-new-approach-improve-global-food-safety) website

* 1. **UK: Red Tractor launches first TV ads**

[*Farmers Weekly:*](http://www.fwi.co.uk/news/red-tractor-launches-first-tv-ads.htm) Red Tractor Assurance (RTA) will launch its first national television advertising campaign later this year to educate customers about food standards. The focus will be on educating customers about the standards behind assured food after RTA market research reports showed shoppers were twice as likely to buy a Red Tractor product if they understood more about the standards behind it. Read the full article at the  [*Farmers Weekly*](http://www.fwi.co.uk/news/red-tractor-launches-first-tv-ads.htm) website

* 1. **US: Advocate for change to establish a Food Safety Culture**

[*FoodSafetyTech:*](https://foodsafetytech.com/column/advocate-for-change-to-establish-a-food-safety-culture/) Presenting the potential damages of being linked to a foodborne outbreak is a great place to start. It typically will open the eyes and slightly intimidate each audience member. After all, executives and board members do not like to hear “profit loss”, “stock plunge”, and “tainted brand image”. Read the full article at the *[FoodSafetyTech](https://foodsafetytech.com/column/advocate-for-change-to-establish-a-food-safety-culture/)* website

* 1. **US Romaine lettuce E. coli outbreak quite relentless**

The E. coli outbreak that has the Centres for Disease Control and Prevention (CDC) urging consumers to avoid romaine lettuce from Yuma Arizona which is linked to an unusually high number of hospitalizations. Now, 31 more cases have been added to an ongoing investigation into the outbreak, bringing the total number of sick individuals across 19 states to 84. About 54% of these patients have been hospitalized, according to the CDC. Meanwhile, countries that are importing romaine lettuce from the US, like Barbados, are having second thoughts. [Full article available here](http://www.freshplaza.com/article/193616/US-Romaine-lettuce-E.-coli-outbreak-quite-relentless)

* 1. **North America: Grower recalls microgreens over listeria concerns**

Greenbelt Microgreens were informed by the Canadian Food Inspection Agency that Listeria was detected in their broccoli Microgreens in Washington State. As a precautionary measure, they have voluntarily recalled all 19 microgreen products produced in Maple Ridge, BC which were distributed to BC, AB, Oregon, and Washington state. No illnesses have been reported. The CFIA and Greenbelt's food safety team are currently on site investigating. [Any updates can be seen on the CFIA website.](http://www.inspection.gc.ca/about-the-cfia/newsroom/food-recall-warnings/complete-listing/2018-04-24/eng/1524633883886/1524633886569)

[Full article available here](http://www.hortidaily.com/article/42853/North-America-Grower-recalls-microgreens-over-listeria-concerns)

* 1. **US: European listeriosis outbreak blamed on frozen corn: 6 dead**

[*Food Safety News:*](http://www.foodsafetynews.com/2018/03/european-listeriosis-outbreak-blamed-on-frozen-corn-6-dead/#.WrgdbkxuKM9) Week-old speculation about frozen corn being responsible for a three-year listeriosis outbreak in Europe, which has had an 18.75 percent fatality rate, is probably correct.

Read the full article at the [*Food Safety News*](http://www.foodsafetynews.com/2018/03/european-listeriosis-outbreak-blamed-on-frozen-corn-6-dead/#.WrgdbkxuKM9) website

* 1. **AU: Rockmelon Listeriosis investigation summary**

The investigation found that the contamination is likely to have occurred due to adverse weather (localised storm over the farm and subsequent dust storms during the season) increasing the levels of Listeria on the fruit prior to harvest. On this occasion and despite following industry best practice, the washing and sanitising at Rombola Family Farms was not able to remove all the trapped bacteria from the rockmelon surfaces, resulting in a low level of Listeria being present.

Read the full summary at the [*NSW Food Authority*](http://www.foodauthority.nsw.gov.au/_Documents/foodsafetyandyou/rockmelon_listeriosis_investigation_summary.pdf) website

  **Health**

* 1. **US study finds a surprising link between food waste and diet quality**

A [national study](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0195405) of U.S. consumers finds that fruit, vegetables and mixed fruit and vegetable dishes end up as food waste much more than other types of food. The study suggests people need better strategies for reducing food waste, especially those pursuing healthy diets. Americans waste nearly a pound of food per person each day, but the exact amount of food we trash differs by how healthy your diet is, a new University of Vermont co-authored national study finds.

Of 22 food groups studied, fruits, vegetables and mixed fruit and vegetable dishes (39 percent of total) were wasted most—followed by dairy (17 percent), and meat and mixed meat dishes (14 percent). The healthier diets also used less cropland than lower quality diets, but led to greater waste in irrigation water and pesticides, which are used at higher rates on average for growing fruits and vegetables.

Researchers say education on preparing and storing fresh fruits and vegetables, and knowing the difference between abrasion and spoilage, is critical. They also highlight efforts to reduce food waste, including French grocer Intermarché’s “inglorious fruits and vegetables” campaign, which promotes the cooking of “the disfigured eggplant,” “the ugly carrot,” and other healthy, but otherwise superficially damaged produce. The study notes that several countries, including Brazil, Germany, Sweden, and Qatar, have adopted dietary guidelines that incorporate environmental sustainability, but none include food waste as a factor. [Full article available here](http://www.freshplaza.com/article/193323/US-study-finds-a-surprising-link-between-food-waste-and-diet-quality)

 **Innovation**

* 1. **Wageningen University publishes booklet on plant breeding techniques**

Scientists of Wageningen University & Research have published a concise booklet that gives some new insights into several aspects of plant breeding techniques such as genome editing: '[Plant breeding techniques in a new era](http://edepot.wur.nl/447321)'.

Worldwide, agriculture is facing serious sustainability issues which need to be addressed through an integrated approach that covers the entire production chain. Plant breeders and plant breeding companies are at the base of that chain. Plant breeders will need to develop new varieties in a shorter period of time to keep up with changes in climatic conditions, soil quality and pathogen & pest pressures, increasing food demand, and the evolving preferences of consumers.

Plant breeders are eager to apply new plant breeding techniques. Society wants to know more about the techniques. In this booklet the scientists describe examples of techniques and of desirable crop traits that may be improved using genome editing. They also discuss societal, legal and economic aspects of new plant breeding techniques. [Full article available here](http://www.hortidaily.com/article/42836/Wageningen-University-publishes-booklet-on-plant-breeding-techniques)

* 1. **UK Study: Fresh produce bacteria can thrive despite routine chlorine sanitizing**

The use of chlorine is quite common in the agricultural industry to sanitize fresh produce. Now, new research conducted by the University of Southampton indicates that chlorine could be making foodborne pathogens in fresh produce undetectable.

The research involved a simulation of spinach leaves contaminated with Listeria monocytogenes and Salmonella enterica. The spinach leaves were sprayed with a chlorine solution wash.  The result was that much of the bacteria were not able to form spores. While the bacteria did survive, it entered what is known as a “viable but nonculturable” (VBNC) state in response to being exposed to chlorine. In short, chlorine was not an effective method for destroying all Listeria monocytogenes and Salmonella enterica in fresh produce.

"VBNC cells cannot be detected by standard laboratory culture techniques, presenting a problem for the food and water supply industries, which uses these techniques to detect potential disease contaminants," [Full article available here](http://www.freshplaza.com/article/193552/UK-Study-Fresh-produce-bacteria-can-thrive-despite-routine-chlorine-sanitizing)

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