

**PMAC weekly update 20th February to 27th February**

1. **Government agencies**: New agreement to protect citrus industry; Stricter stink bug controls proposed for imported cargo; WTO Notifications
2. **New Zealand News****:**  Growers upbeat about crop harvest; China's appetite continues to grow for New Zealand exports; Lifetime working with seeds and grains; Seasonal labour shortage declared in the Bay of Plenty; Research centre to focus on robotics in agriculture; China's Pagoda becomes world's largest retailer of Rockit apples; NZ technology boosts Aussie mango operation; Creator of gold kiwifruit Russell Lowe: 50 years at Plant and Food Research; New Zealand growers participate in biosecurity workshop; Where myrtle rust has been found
3. **International news:** GAIN reports; Singapore focuses on food security to counter external threats; EFSA provides dedicated support for small and medium-sized enterprises; "The GMO directive needs to be amended"; France takes action over kiwifruit fraud; Importing and exporting plants and plant products if the UK leaves the EU without a deal; Danish organic fruit and veg prices under pressure; Bayer board says pursuit of Monsanto was done diligently; Freshfel's latest Headlines.; Free online food safety liability training; "Deeper scrutiny of plant and microbe interactions key for food safety"; Increasing cases of bacteria in IQF vegetables restraining market growth; Daily consumption of fruit and vegetables in the EU; CREA highlights the beneficial properties of blue-violet fruits and vegetables; Influence of hydroxyapatite nanoparticles on germination and plant metabolism; Algorithms to change the way we buy

***Editors comments***

*Good to see another Industry body signing up a GIA partnership with MPI. If nothing else the fruit fly finds in February yet again shows the importance of having as much as possible ready in advance to manage the risks for Industry. In the New Zealand section there is also an interesting article about the biosecurity workshop run between MPI and Tomatoes NZ to help that sector in their readiness planning. We are a lucky country in terms of the pests that aren’t in New Zealand but it is going to take ongoing vigilance and planning to ensure we remain that way.*

*There are a couple of articles in the International section that I find interesting first the large scam in France that successfully sold Italian kiwifruit as French kiwifruit for several years before being exposed. A sobering reminder to us all just how easy it is to-do. And then in a completely different area an article in the innovation section talks about the effect algorithms in diet apps will influence what people eat and so sales. It’s a timely reminder that producer groups make sure their product is on the radar of these app builders. With consumers increased awareness of what is good for them and access to tailored health information this will be an important consideration for all those who want to maintain and grow their place in the market. It will also make research that distinguishes the health-giving properties of food from a specific area particularly valuable as we have already seen in the recent results published on the beneficial chemicals in New Zealand Black currants.*

1. **Agency news**



* 1. **New agreement to protect citrus industry**

Biosecurity New Zealand and Citrus New Zealand have reached an agreement on how to prepare for and respond to future biosecurity threats. Both parties signed a Sector Operational Agreement for Readiness and Response last week under the Government-Industry Agreement (GIA) partnership. They have committed to undertake a joint 3-year programme of work to better protect the citrus industry from biosecurity threats.

The agreement will cover preparing for and responding to incursions of huanglongbing (HLB), Asian citrus psyllid and citrus canker. These pests and pathogens have been identified as high priority by Citrus New Zealand and Biosecurity New Zealand. More pests and pathogens may be added over time. Citrus New Zealand represents 320 New Zealand citrus growers producing around 30,500 tonnes of lemons, mandarins, oranges, tangelos, grapefruit, limes and other hybrids annually.

[Full article available here](https://www.mpi.govt.nz/news-and-resources/media-releases/new-agreement-to-protect-citrus-industry/)

* 1. **Stricter stink bug controls proposed for imported cargo**

MPI is seeking feedback on plans to introduce stricter import requirements for vehicles and sea containers. The changes are intended to make it harder for brown marmorated stink bug to establish in New Zealand. The proposed changes include extending the list of countries that have requirements to treat vehicles, machinery and equipment imports before they arrive in New Zealand. At present, 18 countries have pre-treatment requirements. The proposed new list will increase to 33 countries.

All imported cargo related to vehicles will need to be treated off-shore, including sea containers. In the past, only un-containerised cargo has required treatment before arrival.

MPI has also worked with the Australian Department of Agriculture and Water Resources to get measures that are aligned, making it easier for traders and shippers to comply. So far this season (to the end of March), border officers have detected 123 live stink bugs. The consultations run from 3 April to 3 June 2019. Find out about the consultations and have your say

* [Revised Import Health Standard for Vehicles, Machinery and Equipment](https://www.biosecurity.govt.nz/news-and-resources/consultations/revised-import-health-standard-for-vehicles-machinery-and-equipment/)
* [Revised Import Health Standard for Sea Containers](https://www.biosecurity.govt.nz/news-and-resources/consultations/revised-import-health-standard-for-sea-containers/)

[Full article available here](https://www.mpi.govt.nz/news-and-resources/media-releases/stricter-stink-bug-controls-proposed-for-imported-cargo/)

* 1. **WTO Notifications**

Please find attached the most recent WTO notifications from countries that are considering changes to their plant import requirements for specific products. If you have any concerns about the notifications being presented please contact [Plant.exports@mpi.govt.nz](mailto:Plant.exports@mpi.govt.nz) so that they can potentially make a submission to the notifying country. Changes notified over the last week include:

* Brazil and Japan MRL’s
* EU- Rules on the performance of official controls on plants, plant products and other objects in order to verify compliance with Union rules
* Korea -requirements for "the food for special sanitation management".
* Chinese Taipei - "Regulations for Quarantine of Plant Regulated Articles Export and Import by Mail

The embedded files for the last week (which has links through to the original notifications)is available here 



1. **New Zealand News**



* 1. **Growers upbeat about crop harvest**

Harvest conditions for all main season crops have been exceptional; only squash has disappointed. Cedenco general manager Carla McCulloch said it had been one of the better seasons for its sweetcorn and tomatoes: “We slowed down a little over the weekend because of the rain, but we are on top of the corn crop harvest and there’s only five or six days left of our tomato harvest. That bout of rain on Friday 29th March has not caused any undue effect.” Yields for some crops are 30 percent above budget and the quality has been very good. The IQF (frozen corn) factory has a week more to run and our corn powder factory will run until mid-April.” [Full article available here](https://www.freshplaza.com/article/9089299/new-zealand-growers-upbeat-about-crop-harvest/)

* 1. **China's appetite continues to grow for New Zealand exports**

In the ten years since the Free Trade Agreement (FTA) between New Zealand and China, exports have exponentially increased from $2.1 billion in 2008 to $16.6 billion in 2018. This amount is nearly twice what New Zealand exports to the USA. The Chinese government, initially signed to help reduce poverty in China. In the early days FTA dairy had exponential demand with the Chinese striving to secure safe, high volume supply of vital protein sources such as infant formula. Zespri International stated it was also anticipating a strong year of sales in the country, with China now accounting for 15 percent of its sales. The range of horticultural products offered in China from New Zealand continued to expand, with avocados making their debut this season, and New Zealand cherries finding a spot in the high‐end market. [Full article available here](https://www.nzherald.co.nz/the-country/news/article.cfm?c_id=16&objectid=12217113)

* 1. **Lifetime working with seeds and grains**

84 year old Lindsay Green, from Timaru has spent a lifetime working in the grain and seed industry. When Mr Green started out, there was a great reliance on people’s knowledge without the aid of technology. Now, a lot of the assessing of seed is electronic. Mr Green started in the industry after he left school in March 1953, travelling to Temuka each day by bus doing very labour intensive work. Compared to now, machines do a lot of the intense work. Mr Green retains his interest in the industry and was a judge at the recent Temuka and Geraldine A&P Show. [Full article available here](https://www.odt.co.nz/rural-life/horticulture/lifetime-working-seeds-and-grains)

* 1. **Seasonal labour shortage declared in the Bay of Plenty**

The Ministry of Social Development has declared a seasonal labour shortage in the Bay of Plenty and is extending the seasonal labour shortage in Hawke's Bay. In Bay of Plenty, the shortage is for a six-week period between April 15 and May 27. The declaration is being extended an additional six weeks in the Hawke's Bay until May 20.

Forecasts expected the peak harvest season for the kiwifruit industry in the Bay to run until about May and the Ministry said there was currently a worker shortage of about 3800 people. The Ministry's group general manager of client service delivery, Kay Read, said declaring or extending a labour shortage was a "last resort" once all other levers to find enough workers had been exhausted.

"A declaration also has the effect of highlighting to New Zealanders, who may be willing and able, that there are job opportunities available for them," she said.

Since July 2018, MSD had placed more than 1000 people into jobs in the local kiwifruit industry, nearly 500 of them since January 2019; with many more prepared to start work once the main picking period was under way. "These roles are an opportunity for people seeking to get back into the workforce and can open the door to other things. Many seasonal workers experience a variety of work in a range of locations and are able to stay employed year round using their diverse skills."

New Zealand Kiwifruit Growers Incorporated (NZKGI) said there was a current shortfall of more than 1400 vacancies in the Bay's kiwifruit industry, which was expected to increase to 3800 at harvest's peak around mid-April. NZKGI chief executive Nikki Johnson said the industry had been working hard to attract labour for this year's harvest, but early signals indicated the number of vacancies had reduced.

More than 90 per cent of this season's total kiwifruit crop was yet to be harvested. It was forecast that a similar amount of fruit was required to be packed this year in comparison to last year.

This included an increase of 12 per cent of SunGold kiwifruit which required packing in a short period of time. [Full article available here](https://www.nzherald.co.nz/the-country/news/article.cfm?c_id=16&objectid=12219572)

* 1. **Research centre to focus on robotics in agriculture**

Robotics will be a game changer for growers who are struggling to reduce their production costs, say those behind a major new research centre. Queensland University of Technology (QUT), has announced the launch of the Future Food Systems Cooperative Research Centre.

The Future Food Systems CRC will involve more than 50 commercial and research partners, with the Australian government injecting $35 million in funding over 10 years along with almost $150 million in support from the research centre's educational and commercial participants.

QUT's involvement in the CRC is spread across the centre's three research and development programs of planning and logistics in linking growers to their markets, developing smart automated indoor cropping and creating nutrient-dense foods and hybrid food and medical goods tailored to growing domestic and export markets.

Professor Sagadevan Mundree, Director of QUT's Centre for Tropical Crops and Biocommodities, and Dr Chris Lehnert, a robotics researcher with the [Australian Centre for Robotic Vision](https://www.roboticvision.org/) headquartered at QUT, will also lead foundation projects with the CRC. "The future potential of robotics in indoor protected cropping will be their ability to intelligently sense, think and act in order to reduce production costs and maximise output value in terms of crop yield and quality," Lehnert said. [Full article available here](https://www.nzherald.co.nz/the-country/news/article.cfm?c_id=16&objectid=12218467)

* 1. **China's Pagoda becomes world's largest retailer of Rockit apples**

While middle class consumers with a taste for imported fruit are still obsessed with "cherries" and "avocados", at the end of March, the United Nations accepted Rockit apples as the world's smallest apples. Rockit apples are now on the shelves of Pagoda and available throughout China. This is the. The first time that Rockit apples found their way to China was in 2015.

Pagoda is now the largest retailer of Rockit apples in the world. Their sales volume of Rockit apples in China increased by 74% between 2017 and 2018. The cooperation between Pagoda and Rockit became more intense this year. The two parties plan to select 3-5 Pagoda stores throughout China and turn them into Rockit-themed stores. This new consumer experience will increase brand recognition and promote Rockit apple sales in China, which gives more consumers the opportunity to taste Rockit small apples. [Full article available here](https://www.freshplaza.com/article/9090663/china-s-pagoda-becomes-world-s-largest-retailer-of-rockit-apples/)

** Bits and pieces**

* 1. **NZ technology boosts Aussie mango operation**

FreshPack software developed by New Zealand fresh produce software specialist, Radfords Software Limited, for Australian mango producer Piñata Farms, was instrumental in streamlining ripening and distribution operations during the 2018-2019 season.

Rolled out in October 2018, the software enabled LPG distribution centres in Queensland, New South Wales, Victoria, South Australia and Western Australia, to accurately track and trace mangoes arriving throughout the season from up to 20 packhouses around Australia.

Approximately 70 clients have FreshPack installed to manage a range of products including kiwifruit, apples, avocados, citrus, cherries, tomatoes, mushrooms, onions, squash and organic chicken.

Originally developed to address the kiwifruit industry's need for a process-based software solution, its solutions help growers and packhouses meet stringent quality and process standards. Radfords now services clients in Australia, Europe, Asia and its products support a wide range of fresh produce line.

[Full article available here](https://www.freshplaza.com/article/9089826/nz-technology-boosts-aussie-mango-operation/)

* 1. **Creator of gold kiwifruit Russell Lowe: 50 years at Plant and Food Research**

Last week, Russell Lowe celebrated 50 years working for what is now Plant and Food Research. He worked all but three of them at the Te Puke research centre that he established in the early 1970s.

Really, few people would have made a greater contribution to the kiwifruit industry than plant breeder Russell Lowe. It was his work that broke the kiwifruit mould and created the commercially viable gold variety Hort16A and subsequently, the Psa resistant Gold 3 variety.He started working at the Department of Scientific and Industrial Research (DSIR) facility in Nelson in 1960, working on apples. It was there that he had his first experience of kiwifruit when DSIR staff in Auckland sent plants to the Nelson facility. [Full article available here](https://www.freshplaza.com/article/9090351/creator-of-gold-kiwifruit-russell-lowe-50-years-at-plant-and-food-research/)

 **Biosecurity**

* 1. **New Zealand growers participate in biosecurity workshop**

The TomatoesNZ board, along with key industry partners, participated in a biosecurity response simulation exercise run by Biosecurity NZ (MPI) in Auckland on 14th February. Sixteen growers and industry associates attended, including representatives from other covered vegetable crop growers, a plant nursery and United Fresh. The exercise “scenario” imagined finding Tuta absoluta (tomato leafminer) adults and larvae in a greenhouse in South Auckland.

Tuta absoluta is one of the two pests (the other being Pepino mosaic virus [PepMV]) named in the recently signed Fresh Tomato Operational Agreement for Biosecurity Readiness and Response. It is a highly destructive leaf mining moth of tomato plants and fruit, and can also infest other solanaceous crops. It is a pest in tomato greenhouses in many parts of the world, and has been rapidly spreading to New Zealand. A fact sheet about Tuta absoluta can be found on the biosecurity page of the tomatoesnz.co.nz website.

After MPI presented some background information on the biosecurity response system and on the biology of Tuta absoluta, the attendees split into two groups. Each person in the group was allocated one of the “roles” of a biosecurity response team: controller, intelligence, planning, operations, logistics, public information management (PIM) and welfare. The teams then had to make decisions on how to react, and come up with as many activities as they could think of to prevent adverse impacts of the theoretical scenario. The groups then allocated the activities to members of the teams according to roles.

This proved very useful in terms of learning what goes into a response plan and understanding “CIMS” coordinated incident management system. Besides giving the participants a clearer understanding of what happens in a response, a whiteboard session at the end produced a long list of activities that could be started on now, to better prepare the industry for Tuta absoluta, and minimise its impact if (or when) it does arrive.

Participants' feedback at the end of the day included that they were encouraged by a strong willingness to work together and engage across government and industry to ensure the best outcomes for growers and NZ; a better understanding of the MPI response system; and an increased awareness of the work that can be done to better prepare industry for a biosecurity incursion.

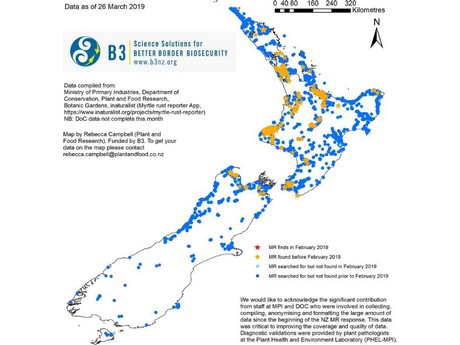
TomatoesNZ will be working with MPI to prioritise and begin work on some of those activities in the next few months.

TomatoesNZ added three new information sheets on tomato biosecurity risk pests: Tomato Pinworm, Red spider mite, Tomato Yellow Leaf Curl Virus (TYLCV) and Tomato Infectious Chlorosis Virus (TICV)

The fact sheets can be downloaded [here](https://www.tomatoesnz.co.nz/biosecurity/exotic-pests-fact-sheets-2/). Find out more about the organization's recent biosecurity research [here](https://www.tomatoesnz.co.nz/hot-topics/biocontrol-research/). [Full article available here](https://www.hortidaily.com/article/9088345/new-zealand-growers-participate-in-biosecurity-workshop/)

* 1. **Where myrtle rust has been found**

Myrtle rust continues to be an issue in New Zealand. 988 infected properties have been reported since May 2017.



[For more information, see the myrtle rust update from the Ministry for Primary Industries of New Zealand.](http://www.myrtlerust.org.nz/assets/news/Myrtle-Rust-Newslestter-March-2019.pdf) [Full article available here](https://www.floraldaily.com/article/9089345/new-zealand-where-myrtle-rust-has-been-found/)



1. **International news**

**Comment**

* 1. **GAIN reports**

Gain reports are from the “Global Agricultural Information Network” and are produced by the USDA. They are designed to provide timely information on the economy, products and issues in foreign countries that are likely to have an impact on United States agricultural production and trade. The information in them is written for USA exporters but the majority is equally relevant to New Zealand. With regard to import regulations for a particular market New Zealand exporters should first check the countries ICPR on MPI’s web site. These are collated specifically for New Zealand product. However the Gain reports often provide additional information that is useful e.g. on grading and labelling, economic profiles. This week see:

1. **Burma Export Certificate Report** [Food and Agricultural Import Regulations and Standards Report\_Rangoon\_Burma – Union of\_12-19-2018](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Food%20and%20Agricultural%20Import%20Regulations%20and%20Standards%20Report_Rangoon_Burma%20%e2%80%93%20Union%20of_12-19-2018.pdf)
2. **Canada Exporter Guide** Canada continues to offer excellent export opportunities for new-to-export small- and medium-sized U.S. companies.   [Exporter Guide\_Ottawa\_Canada\_3-13-2019](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Exporter%20Guide_Ottawa_Canada_3-13-2019.pdf)
3. **France Exporter Guide** France is the third largest European economy and according to French customs imported $1.28 billion of food and agricultural products from the United States in 2017. [Exporter Guide\_Paris\_France\_2-6-2019](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Exporter%20Guide_Paris_France_2-6-2019.pdf)
4. **Greece Exporter Guide** It contains information on the economic situation, consumer buying patterns, and strategies for market entry [Exporter Guide\_Rome\_Greece\_3-29-2019](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Exporter%20Guide_Rome_Greece_3-29-2019.pdf)
5. **Hong Kong Food Service - Hotel Restaurant Institutional** Macau is the fifth-most visited city in the world and a budding culinary destination in Asia. In 2017, Macau’s food service sector sales topped US$1.4 billion, a positive growth trend forecast to continue [Food Service - Hotel Restaurant Institutional\_Macau\_Hong Kong\_3-18-2019](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Food%20Service%20-%20Hotel%20Restaurant%20Institutional_Macau_Hong%20Kong_3-18-2019.pdf)
6. **Jordan Export Certificate Report Annual 2018** This report lists and describes certificates that need to accompany food and agricultural products to the Hashemite Kingdom of Jordan.   [Food and Agricultural Import Regulations and Standards Report\_Amman\_Jordan\_12-16-2018](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Food%20and%20Agricultural%20Import%20Regulations%20and%20Standards%20Report_Amman_Jordan_12-16-2018.pdf)
7. **New Zealand Export Market Guide 2018** In 2017, New Zealand imported more than $4.5 billion of food and agricultural products.  With its economy projected to grow by 3-3.5 percent in 2018, demand for these products [Exporter Guide\_Wellington\_New Zealand\_2-11-2019](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Exporter%20Guide_Wellington_New%20Zealand_2-11-2019.pdf)

**Regulatory**

* 1. **Singapore focuses on food security to counter external threats**

Singapore, which imports 90% of the food it consumes, is making concerted efforts to produce and store its own food, as it seeks greater food security in the face of external threats such as climate change and pressures from neighboring Malaysia.

The Singapore government has launched a series of new food projects in order to be able to feed its growing population. Earlier this month, it announced that it would open a 18ha "Agri-Food Innovation Park" which will be used for high-tech farming processes and research and development activities including insect farms. "We are working with local and overseas industry players to develop this first phase of the park, which will be ready from the second quarter of 2021 with potential for future expansion," said Koh Poh Koon, Singapore's senior minister of state for trade and industry. Singapore, has appointed seven co-investment partners to inject more than S$90 million into Singapore-based agri-food tech startups. [Full article available here](https://www.hortidaily.com/article/9088828/singapore-focuses-on-food-security-to-counter-external-threats/)

* 1. **EFSA provides dedicated support for small and medium-sized enterprises**

EFSA[[1]](#footnote-1) has launched new support initiatives dedicated to applicants from small and medium-sized enterprises (SMEs). SMEs will now be able to access support from EFSA when preparing, submitting and monitoring their applications for regulated products.

The results of the pilot project on “Pre-submission administrative check of draft dossiers” demonstrated that dedicated initiatives to SMEs should be simple, easy to access, flexible and be available at an early stage of the application process. EFSA therefore decided to launch and test activities tailored to the specific needs identified by the project. [Full article available here](https://www.hortidaily.com/article/9089709/efsa-provides-dedicated-support-for-small-and-medium-sized-enterprises/)

* 1. **"The GMO directive needs to be amended"**

In the latest issue of Wageningen World, Wageningen Plant Research director Ernst van den Ende discusses the future of CRISPR-Cas. Last year, the European Court of Justice ruled that plant breeding using CRISPR-Cas constitutes genetic modification. Van den Ende now gives his thoughts on the consequences of that decision: 'The European directive is no longer appropriate for modern-day technology.' [Read the interview in the digital edition of Wageningen World](https://issuu.com/wageningenur/docs/ww2019_01_eng/28)

* 1. **France takes action over kiwifruit fraud**

Government officials in Paris have revealed that an unusual spike in kiwifruit supply towards the end of the domestic season alerted them to an apparent €6m scam involving six companies in France and at least one in Italy. The consumer affairs agency Dgccrf said it was taking legal action against the companies after discovering around 15,000 tonnes of Italian kiwifruit had been mislabelled as French over the past three years. That figure amounted to approximately 12 per cent of kiwifruit sold as domestic produce on the French market since 2016, it added. A sudden surge in volumes towards the end of the French campaign is understood to have raised suspicions about what newspaper Le Parisien has dubbed 'kiwigate'. [Full article available here](http://www.fruitnet.com/eurofruit/article/178338/france-takes-action-over-kiwifruit-fraud)

* 1. **Importing and exporting plants and plant products if the UK leaves the EU without a deal**

The UK Government has updated its guidelines on how to trade in plants and plant products inside and outside the EU if the UK leaves the EU in April 2019 with no deal. The majority of plants and plant products (including fruit, vegetables and cut flowers) imported from the EU will continue to enter the UK freely, as currently.

After the UK leaves the EU, any plants and plant products currently managed under the EU plant passport scheme will be subject to UK import controls and become ‘regulated commodities’. This replaces the EU plant passport’s assurance and traceability, and maintains biosecurity.

When you import plants or plant products that are currently managed under the EU plant passport scheme, you’ll need to:

* register as an importer using the Procedure for Electronic Application for Certificates from the Horticultural Marketing Inspectorate (PEACH) website for regulated plants and plant products entering the UK via England and Wales
* make sure a regulated consignment enters the UK with a phytosanitary certificate (PC) issued in the country of export (or re-export)
* provide pre-arrival notification using the PEACH website - as part of this you will need to upload scanned copies of your PC and other relevant documents (for example bill of lading, cargo movement request, or delivery company invoice) to the PEACH website
* supply the original copy of the PC by post within 3 days of your consignment arriving in the UK
* if you are entering goods directly into Scotland or Northern Ireland, refer to the relevant plant health authority for further information.

[Click here for more information.](https://www.gov.uk/guidance/importing-and-exporting-plants-and-plant-products-if-theres-no-withdrawal-deal)

[Full article available here](https://www.floraldaily.com/article/9089925/importing-and-exporting-plants-and-plant-products-if-the-uk-leaves-the-eu-without-a-deal/)

 **Business/ Industry**

* 1. **Danish organic fruit and veg prices under pressure**

New data from the Danish Consumer Board, Tænk, indicates that the price of organic fruit and vegetables is subject to fierce competition. Almost all the supermarkets lowered these prices by more than ten percent last year. Aldi is the only exception.

“One reason for the low prices in that the turnover rate of organic products has risen sharply in recent years. This means supermarkets have to throw away less of these products. They can, therefore, afford to lower prices," says Henrik Hindborg, Økologisk Landsforening's Retail Manager.

According to him, another factor is that imports of cheaper overseas products have tripled in the years between 2014 and 2017. [Full article available here](https://www.hortidaily.com/article/9087894/danish-organic-fruit-and-veg-prices-under-pressure/)

* 1. **Bayer board says pursuit of Monsanto was done diligently**

Bayer’s non-executive board reaffirmed its support for top management’s decision to acquire Monsanto last year, after losing high-profile lawsuits to U.S. plaintiffs who claimed Monsanto’s Roundup weedkiller caused their cancer. In documents posted on the company’s website on Monday, the non-executive supervisory board said an expert opinion it commissioned from lawfirm Linklaters found that Bayer’s management had complied with their duties when acquiring Monsanto for $63 billion last year.

“The Supervisory Board extensively discussed this expert opinion and based on this also comes to the conclusion that the Board of Management acted in compliance with its duties,” it said.Bayer shares have lost more than 35 percent of their value, equivalent to about 33 billion euros in market capitalization, since August, when a U.S. jury found Bayer liable because its Monsanto unit did not warn of Roundup’s alleged cancer risks. It suffered a similar courtroom defeat last month.

Although the German company is appealing the verdicts, more than 10,000 similar cases are pending in state and federal courts, with analysts predicting the company will have to pay out billions of dollars in settlements. [Read more at Reuters](https://www.reuters.com/article/us-bayer-board/bayer-board-says-pursuit-of-monsanto-was-done-diligently-idUSKCN1RE1JF)

 **Marketing**

* 1. **Freshfel's latest Headlines.**

Freshfel is the European Fresh Produce Association. Articles about its activity for February and March are available via the link at this end of this article. In this edition Freshfel includes articles on the following:

* Freshfel Europe address fruit and vegetables export concerns at CELCAA seminar *Driving EU Agri-Food Trade Forward – the view for 2020*
* Freshfel Europe presents position on e-Commerce during the 32nd International Meeting Quality Control Fruit and Vegetables
* Citrus Summit South Africa: Freshfel Europe General Delegate presented a global outlook for citrus
* Freshfel Europe participates in EU-Canada Workshop to phase-out methyl bromide and boost EU F&V exports
* FV for a Healthy EU: Freshfel Europe organises Kick-off meeting with subcontractors
* Thematic Network Joint Statement finalised with 42 endorsements
* Thematic Network presented to Partnership for a Healthier Diet in Norway
* Freshfel Europe co-organises EuroMix final Stakeholder Workshop
* Freshfel Europe participated in the successful EUFRUIT research project
* EU plastics policy presented at Associazione Nazionale Le Donne dell’Ortofrutta conference
* Crisis Prevention and Management in EU agriculture
* Freshfel Europe participates in Civil Dialogue Group on Common Agricultural Policy
* Freshfel Europe participates in Expert Group on Apple and Pear
* Freshfel Europe reinforces its focus on cooperation with international organisations
* Freshfel Europe continues to closely monitor Brexit developments on both sides of the Channel

All the latest Freshfel headlines can be [found here](http://freshfel.org/newsroom/headlines/)

 **Food safety**

* 1. **Free online food safety liability training**

Farm Commons is offering [*Cultivate Legal Resilience through Food Safety Law*](https://farmcommons.org/resources/cultivate-legal-resilience-food-safety-law), a free, online course, until April 30, 2019. Through this self-paced course, farmers will learn actionable methods for reducing their risk of food safety liability and best practices for planning for recovery support if and when a food safety incident occurs. The course’s 11 modules cover personal injury liability, insurance needs, state and federal regulations, FSMA, and more.

* 1. **"Deeper scrutiny of plant and microbe interactions key for food safety"**

The complex landscape of plants and microbe interaction means that food safety specialists should consider fine detail and cannot generalise when carrying out risk assessments, new research by James Hutton Institute scientists has shown.

Fresh produce is an important vehicle for transmission of disease-causing bacteria like *Eschericia coli,* and experimental evidence shows that they can colonise plants as secondary hosts, but differences in the capacity to colonise occur between different plant species and tissues. In a new study, Hutton researchers have determined whether growth and the ability of bacteria to form biofilms in plant extracts could be related to specific plant metabolites or could predict the ability of the bacteria to colonise living plants.

Latest research shows : “Growth rates for sprouted seeds, including alfalfa and fenugreek, exhibited a positive relationship between plant extracts and living plants, but not for leafy vegetables such as lettuce and spinach.Therefore, the detailed variations at the level of the bacterial isolate, plant species and tissue type all need to be considered in risk assessments.”

By understanding the mechanisms of how the bacteria interact with plants, researchers are hoping to find targeted ways to stop the binding, reducing the risk of food contamination.

The paper  documenting this work is [The influence of plant species, tissue type and temperature on the capacity of Shigatoxigenic Escherichia coli to colonise, grow and internalise into plants](https://aem.asm.org/content/early/2019/03/18/AEM.00123-19),

[Full article available here](https://www.freshplaza.com/article/9088782/deeper-scrutiny-of-plant-and-microbe-interactions-key-for-food-safety/)

* 1. **Increasing cases of bacteria in IQF vegetables restraining market growth**

The global demand for individually quick frozen IQF vegetable is expected to rise on the account for their longer shelf lives, speedy processing of foods, and robust supply chain. Future Market Insights’ report, titled “IQF Vegetable Market: Global Industry Analysis and Opportunity Assessment, 2016-2026” estimates that the global market for IQF vegetables is presently valued over US$ 1,288.3 mln, recording global sales of a little over 16,900 tonnes of IQF vegetable in the world. It notes future global demand for IQF vegetable is expected to be inhibited by increasing risk of consuming *Listeria monocytogene* bacteria through IQF vegetable; strict regulations that forbid the use of IQF vegetable due to rising occurrence of bacteria and viruses, and; fluctuating prices & availability of raw materials.

[Full article available here](https://www.freshplaza.com/article/9089392/increasing-cases-of-bacteria-in-iqf-vegetables-restraining-market-growth/)

* 1. **Daily consumption of fruit and vegetables in the EU**

In 2017, around 1 in 4 people (27 %) ate fruit at least twice a day, according to a survey of the European Union (EU) population .  A further 37 % of the EU population ate fruit once a day and the remaining 36 % ate fruit either less frequently or not at all during a typical week. Compared with fruit consumption, a slightly smaller proportion (23 %) of the EU population ate vegetables at least twice a day, and a slightly higher proportion (40 %) ate vegetables once a day.

[Click here for a the daily consumption of fruit by country.](https://agfstorage.blob.core.windows.net/misc/FP_com/2019/04/02/Euro2460000.jpg)  And for the daily consumption of vegetables by country. [Full article available here](https://www.hortidaily.com/article/9089189/daily-consumption-of-fruit-and-vegetables-in-the-eu/)

  **Health**

* 1. **CREA highlights the beneficial properties of blue-violet fruits and vegetables**

The scientific community now recognizes the importance of the intestine and its microbiota in maintaining the general state of health. For the first time, the Food and Nutrition research centre of the CREA has focused on the beneficial role played by proanthocyanidins, a particular type of flavonoids, typical of blue-violet fruits and vegetables, in intestinal dysfunction.

Flavonoids are natural bioactive molecules widely present in the plant world. They are known and appreciated for their health properties and for their contribution to the prevention of many diseases, such as cardiovascular, inflammatory diseases and even some forms of cancer.

Intestinal dysfunctions occur in different ways and with different intensities, ranging from alteration of the intestinal barrier that prevents the entry of toxins and bacteria, to real inflammation, that can even have a negative influence on the whole body. Consequently, understanding how the molecular mechanisms that regulate the protective processes of the intestine work is fundamental for the development of effective strategies of prevention and treatment. These dysfunctions are often associated with overweight and obesity conditions.

A very recent study indicates that the regular intake of proanthocyanidins can contribute to the prevention of intestinal dysfunction of inflammatory type, due to the ability to positively modulate the cellular and tissue response to toxic agents, protecting the functions essential to maintain the health of the body as a whole. This study confirms the importance of molecules characteristic of the Mediterranean diet in a diet functional to human health". [Full article available here](https://www.freshplaza.com/article/9089556/crea-highlights-the-beneficial-properties-of-blue-violet-fruits-and-vegetables/)

 **Innovation**

* 1. **Influence of hydroxyapatite nanoparticles on germination and plant metabolism**

The Nutrient Use Efficiency in intensive agriculture is lower than 50% for macronutrients. This feature results in unsustainable financial and environmental costs. Nanofertilizers are a promising application of nanotechnology in agriculture. The use of nanofertilizers in an efficient and safe manner calls for knowledge about the actual effects of nanoproducts on the plant metabolism and eventually on the carrier release kinetics and nutrient accumulation.

Hydroxyapatite (Ca10(PO4)6(OH)2) nanoparticles (nHA) have an interesting potential to be used as nanofertilizers. In a new study, the effects of different nHA solutions stabilized with carboxymethylcellulose (CMC) were evaluated on germination, seedling growth, and metabolism of Solanum lycopersicum L., used as model species. The study authors' observations showed that the percentage germination of S. lycopersicum is not influenced by increasing concentrations of nHa, while root elongation is strongly stimulated. Tomato plants grown in hydroponics in the presence of nHA have not suffered phytotoxic effects. They conclude that nHA had nontoxic effects on our model plant and therefore it could be used both as a P supplier and carrier of other elements and molecules.

[Access the full study at Agronomy.](https://www.mdpi.com/2073-4395/9/4/161)

* 1. **Algorithms to change the way we buy**

Berries must be a part of app-based and “algorithmic” shopping and eating trends to continue its growth said Rabobank analyst Cindy Van Rijswick. Personalised nutrition is widely tipped to be one of the next big consumer trends, with technology such as DNA kits providing consumers with information on food types best suited for their health.

Van Rijswick opened her ten minute talk at the Headline Hub at the Global Berry Congress with a warning to companies to ensure they stay ahead of the trend. “We expect in the future machines or algorithms will decide what we eat, just like Spotify decides what music we should listen to. The question is are berries in those algorithms? Because they are healthy and versatile and can be eaten throughout the day, but as a company take care that berries are really in the equation,” Van Rijswick said.

“For retailers, who will also create apps and help consumers make decisions, berries are a really interesting category to push, berries really stand out as they combine a high price which makes it possible to make high margins, and they have a high volume so makes it interests for retailers.”

Berries remain one of the most attractive categories according to Van Rijswick, with plenty of growth potential in one form or another. In the US, organic berries have proven a recent success story.

“In Asia, Eastern Europe and Western Europe, we see blueberries stand out, and outperformed the total fruit market. Zooming in the Northern European market, these markets are also going strong.

She added that blueberries can still gain further ground across Europe. “It’s still below the penetration of other fresh fruits, for most fruits it's between 60-80 per cent and for blueberries, it’s still below that, especially for raspberries and blackberries which are much lower so there’s still potential to grow.”  [Full article available here](http://www.fruitnet.com/fpj/article/178318/algorithms-to-change-the-way-we-buy)

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1. EFSA European Food Safety Authority [↑](#footnote-ref-1)