

**PMAC weekly update 21st to 28th May**

1. **Government agencies**: ICPR Changes, Latest NZ Total Diet Study gives more insight on what we're eating
2. **New Zealand News:**  Support for trade rules and EU-NZ talks on agenda; EU and New Zealand to start free trade talks; New Zealand apple industry is global leader; IG International joins hands with Mr Apple; One of New Zealand’s newest apple varieties starts Dazzling the world; Former Zespri CEO joins DMS Board as director; Record New Zealand kiwifruit exports boost overall exports in April; Zespri: excellent market performance lifts returns; Zespri nears goal of selling Chinese-grown kiwis under own label; New Zealand employers to pay minimum wage or risk prosecution; Kiwifruit picking - how hard is it really?; New Zealand’s Northland: No kiwifruit picker shortage ; Agri-tech research centre opens in Palmerston North; Agri-tech research centre opens in Palmerston North; Tasmania's fruit fly fight hits $5.5 million; Imported mangoes are likely source of fruit fly incursions into Tasmania
3. **International news:** GAIN reports; EFSA reviews glyphosate residue levels; U.S. Putting ‘Trade War’ Against China on Hold; EU: New rules for organic production; US: Organic sector sees steady growth of 6.4 percent in 2017; Bayer launches online training in good agricultural practices; "Vietnam lags behind Thailand in use of blockchain in agriculture; Antifungal resistance could lead to ‘global food shortages’; Berries and grapes may keep you breathing easy; "Nanoparticles could help rescue malnourished crops"; This Robotic Pollinator Is Like a Huge Bee With Wheels and an Arm; Crop protection giants eye robotics

***Editors comments***

*Trade announcements top this week’s activity with the news that:*

* *The EU has mandated its FTA negotiations with New Zealand( and Australia), and,*
* *The trade war between the USA and China has been called off.*

*The trade environment is looking potentially less protectionist as a consequence which is good news for New Zealand exporters.*

*At the same time New Zealand news shows the NZ apple industry has been named the most competitive in the world and there are two good examples of relationships between apple exporters and companies in India and the USA in connection with New Zealand bred apples. These articles and the returns quoted by Zespri in its year end results show that good returns can be made out of horticulture but we will need to be clever to maintain our lead.*

*In the international section organics appears in 2 articles . New rules in place in the EU and news of continued growth in the US market ( 6 times the growth of the overall market in the same year). Organics are becoming more and more mainstream and look likely to take an increasing share.*

1. **Agency news**



* 1. **ICPR changes**

The ICPR for Taiwan has been updated with the addition of 68 new pests to the Taiwan Quarantine Pest list see [Importing Countries Phytosanitary Requirements](http://mpi.govt.nz/law-and-policy/requirements/importing-countries-phytosanitary-requirements/)

* 1. **Latest NZ Total Diet Study gives more insight on what we're eating**

New Zealand Food Safety (a unit of MPI) last week published the results for the 2016 New Zealand Total Diet Study (TDS), which shows the food New Zealanders eat has a high level of safety in regard to chemical hazards which might be present in the food supply.  Exposure to agricultural chemicals and contaminants from food remains low, and for the first time in 2 decades, our dietary intake of iodine is sufficient for good health.

The study which is carried out on average every 5 years is a national survey of a range of common foods consumed in a typical diet. The 2016 study tested over 4,300 individual food samples for a total of 301 agricultural chemicals and 10 contaminants and nutrients.

In terms of contaminants, the Ministry for Primary Industries (MPI) tested for aluminium, arsenic, cadmium, lead, mercury, and tin. "Dietary levels of cadmium and mercury have remained consistent with results from the previous TDS. Lead levels, on the other hand, have decreased and we are seeing a continued trend of this.

 MPI tested a range of common nutrients such as iodine, selenium, sodium, and zinc. Approximately half of the foods were also tested for fluoride. We found Kiwis are still consuming higher than needed levels of sodium in their diet, however, consumers are getting the right levels of selenium and zinc, both of which are essential in supporting a healthy metabolism.

For agricultural chemicals, MPI tested 3 types that are commonly used in agriculture: insecticides, fungicides and herbicides. Plus for the first time, 2 chemicals commonly found in disinfectants used in the food production industry and in homes. "We tested more agricultural chemicals than in any previous TDS and although about 40% of the samples had a detected level of agricultural chemical residue, all of the exposures in the diet were very low, and far below the levels that would be a food safety risk. The next TDS will likely be conducted in 2021. [Full article available here](http://mpi.govt.nz/news-and-resources/media-releases/latest-nz-total-diet-study-gives-more-insight-on-what-were-eating/)



1. **New Zealand News**



* 1. **Support for trade rules and EU-NZ talks on agenda**

Fortifying support for international trade rules and preparing the way for New Zealand’s free trade talks with the European Union are key aims for Trade and Export Growth Minister David Parker during a visit to France and Germany this week. He will attend the OECD’s annual Ministerial Council meeting in Paris, which he will vice-chair. He will also join an informal gathering of World Trade Organisation (WTO) Ministers to discuss ways to advance WTO talks and strengthen multilateralism.

While in Europe David Parker will also hold bilateral talks in Paris and Berlin, where he will discuss the launch of negotiations on an EU-New Zealand free trade agreement, following the EU’s adoption of its negotiating mandate this week. [Full article available here](https://beehive.govt.nz/release/support-trade-rules-and-eu-nz-talks-agenda)

* 1. **EU and New Zealand to start free trade talks**

A free trade deal between New Zealand and the European Union (EU) has taken a major step forward with the announcement last week that the EU’s Foreign Affairs Council has approved its negotiating mandate.

“The EU is our third largest trading partner, with two-way trade worth more than $20 billion. Even excluding the UK, our trade with the EU is worth about $16 billion annually. “At the start of negotiations, we’ll be releasing a package of information outlining our negotiating priorities for this agreement and how we will be engaging with New Zealanders as negotiations progress,” David Parker said.

EU Trade Commissioner Cecilia Malmström will travel to New Zealand in June for the formal launch of negotiations. The first rounds of talks is set down for July in Brussels.[Full article available here](https://beehive.govt.nz/release/eu-and-new-zealand-start-free-trade-talks)

An NZIBF discussion paper on the prospects for an EU-New Zealand FTA is [available here](http://www.tradeworks.org.nz/towards-a-new-zealand-european-union-fta/) [Full article available here](http://www.tradeworks.org.nz/eu-negotiating-mandate-fta-negotiations-new-zealand-approved/)

**Industry news**

* 1. **New Zealand apple industry is global leader**

The World Apple Review has named New Zealand’s apple industry the most competitive on the global stage for the fourth year running. It was pitted against 33 major apple growing countries.

Released this week, the World Apple Review stated that the innovations emerging from New Zealand’s apple industry will increasingly impact production and marketing throughout the world. New Zealand’s high productivity gains helped deliver the outstanding performance, ahead of its closest rivals Chile and the United States. [Full article available here](http://www.freshplaza.com/article/195122/New-Zealand-apple-industry-is-global-leader)

* 1. **IG International joins hands with Mr Apple**

Leading fresh fruit importer IG International has entered into an association with Mr Apple, a major global apple exporter from New Zealand, to launch DIVA, a premium variety of apples into the Indian subcontinent. Commenting on the launch, Mr. Tarun Arora, Director – IG International Pvt. Ltd, said, “Apples are highly sought-after in India for their abundant health benefits and juicy and crunchy wonders. The introduction of premium and fresh DIVA apples will help us meet the growing demand of exotic fruits in India, and at the same time resonates well with the Indian consumers who have developed distinct tastes and preferences for fruits. [Full article available here](http://www.freshplaza.com/article/195195/IG-International-joins-hands-with-Mr-Apple)

* 1. **One of New Zealand’s newest apple varieties starts Dazzling the world**

The USA is the first country outside of New Zealand to be licensed to grow and sell the exciting new Dazzle® apple, which was launched a year ago by Fruitcraft. Fruitcraft is a collaboration between three of New Zealand’s largest apple growers, Mr Apple, Bostock New Zealand and Freshmax.
Fruitcraft has signed a license agreement with Chelan Fruit and Gebbers Farms.  Chelan Fruit is a US cooperative with 325 grower members, farming 14,000 acres in Washington State. Gebbers Farms, farming over 13,500 acres, is one of the largest family owned and managed apple and cherry businesses in Washington State.

“This is the first step in the global licensing of the Dazzle® programme. It gives growers in the US the ability to grow Dazzle® and sell it around the world. Chelan Fruit and Gebbers Farm have committed to planting three million trees over 12 years, and they will be marketing their fruit through their jointly owned company Chelan Fresh, one of the world’s largest apple sellers.”

Dazzle® branded apples are grown on trees of the variety PremA129, which has been bred in New Zealand and trialled over many years and is owned by Prevar Limited.  Prevar licensed global production and marketing rights to Fruitcraft. There are more than 100,000 PremA129 trees now planted in New Zealand with a further 250,000 trees being planted this winter. “We are on track to produce and export one million cartons of Dazzle® by 2028, which will make Dazzle® one of the most popular apples in New Zealand” said Mr Potbury. [Full article available here](http://www.freshplaza.com/article/195096/One-of-New-Zealands-newest-apple-varieties-starts-Dazzling-the-world)

* 1. **Former Zespri CEO joins DMS Board as director**

Tauranga-based DMS, the leading kiwifruit and avocado orchard management and post-harvest operator, has announced the appointment of former Zespri International CEO Lain Jager as Board Director. Since leaving Zespri in December 2017 Lain has been involved in several investment projects across the Agribusiness and Tourism sectors in addition to working with a number of businesses in Governance or Strategic Advisory roles. [Full article available here](http://www.freshplaza.com/article/195335/Former-Zespri-CEO-joins-DMS-Board-as-director)

* 1. **Record New Zealand kiwifruit exports boost overall exports in April**

According to monthly trade data released last week, a record month for kiwifruit exports helped push the country's overall exports in April to the second-highest level ever. Kiwifruit exports surged 82 percent in April to $438 million, a new high. The rise in kiwifruit exports was the leading contributor to a 7.3 percent lift in overall goods exports for April to $5.1 billion, the second-highest for any month after December 2017's record $5.5 billion. [Full article available here](http://www.freshplaza.com/article/195215/Record-New-Zealand-kiwifruit-exports-boost-overall-exports-in-April)

* 1. **Zespri: excellent market performance lifts returns**

Zespri has delivered an increase in value to growers, despite a season in which the volume of New Zealand kiwifruit sold fell by 11 percent. The total fruit and service payment to growers increased by 6 percent to $1.47 billion. Zespri’s global kiwifruit sales for the year were also up 6 percent, at $2.39 billion. Total revenue, which includes licence income, was $2.51 billion.

Zespri Chairman Peter McBride notes the uplift in value reflects strong consumer demand and excellent market performance. “We sold a record volume of SunGold while growing returns at both per-tray and per-hectare levels. Supply of Green and Organic Green reduced considerably from the exceptionally high volume of the previous year, but very strong consumer demand more than offset the impact on per-hectare returns for Green and mitigated the impact on Organic Green per-hectare returns.

Zespri’s net profit after tax in 2017/18 increased by 38 percent to $101.8 million. The result was primarily driven by revenues from the release of 400 hectares of SunGold licence in 2017, as part of Zespri’s continuing programme to fulfil strong consumer demand. The article provides the average price per tray and average return per hectare for Green , Sungold, Organic Green and sweet green

Mr McBride says that the 2017/18 season also marked progress in strengthening the foundations of the industry, through how Zespri is funded and how Zespri is owned. “Zespri shareholders backed changes to Zespri’s constitution in a Special Meeting in March 2018 to strengthen grower ownership and control of the company.  The new constitution addresses a problem of misalignment between growers who supply kiwifruit to Zespri and people who own shares in Zespri and is critical for the stability of the industry structure. Shareholder support for change was an outstanding reflection of the cohesiveness of our industry and of a common interest among growers and former growers in seeing it prosper. [Full article available here](http://www.freshplaza.com/article/195092/2017-18-season-results-excellent-market-performance-lifts-returns)

* 1. **Zespri nears goal of selling Chinese-grown kiwis under own label**

This week, Zespri stated it is hopeful that by next year it will be able to sell kiwifruit grown in China under its own coveted marketing label. After several years of trials, the Tauranga-based marketer says it is working with growers who are prepared to sign up to Zespri's strict quality control standards. They will have to have all the assurances that the New Zealand systems have: GAP, certification, traceability. [Full article available here](http://www.freshplaza.com/article/195336/New-Zealand-Zespri-nears-goal-of-selling-Chinese-grown-kiwis-under-own-label)

**Other**

* 1. **New Zealand employers to pay minimum wage or risk prosecution**

Advertisers offering jobs to backpackers are being told they must pay the minimum wage or risk prosecution. Last week it was revealed that job website Backpackerboard was advertising jobs below the $16.50 per hour minimum wage. The website has since pulled all job ads below minimum wage and decided to be more alert. However, labour inspectors are taking a closer look at adverts that don't offer the minimum wage.

[Scoop.co.nz](http://www.scoop.co.nz/stories/HL1805/S00139/employers-told-to-pay-minimum-wage-or-risk-prosecution.htm) quoted Labour Inspectorate national manager Stu Lumsden as saying: "Many don't actually realise what the minimum wage is ... which is quite surprising.” He said ignorance of the law was no excuse and prosecution was an option. "If we find that minimum entitlements have been breached ... an individual is liable for a penalty up to $10,000 per breach ... and $20,000 per breach as a company," he said. [Full article available here](http://www.freshplaza.com/article/195016/New-Zealand-employers-to-pay-minimum-wage-or-risk-prosecution)

* 1. **Kiwifruit picking - how hard is it really?**

The NZ kiwifruit industry remains at a loss as to how to solve its self-described worker crisis. The seasonal labour shortage of 1200 pickers and packers that was announced halved to 600, within 3 days after widespread media coverage and help from the Ministry for Social Development.

Kiwifruit Growers Incorporated chief executive Nikki Johnson said pack houses were still not running at capacity and would likely stay that way. Miss Johnson said she did not know if the worker shortage could be fixed by paying pickers more. "It's a give and take situation, and it's something that will play out as we understand the labour market a bit better."

Picking kiwifruit is physically demanding work that often pays close to the minimum wage. The brief length of the season and because kiwifruit cannot be picked in the rain makes it hard for orchards to attract staff. Johnson said the industry was aware of these problems, highlighting a recent New Zealand Kiwi Growers Incorporated survey that found the average wage across its growers was $21 an hour.

"But when you average that over the number of hours available in a week where it rains, is that enough? We've got a real perception issue that people think it's a minimum wage job, so, we can't really say. If people knew it was $21-an-hour, or more, because that is the average, would that attract them to the roles? That's what we need to understand." [Full article available here](http://www.freshplaza.com/article/195214/New-Zealand-Kiwifruit-picking-how-hard-is-it-reallyhttps%3A/www.radionz.co.nz/national/programmes/checkpoint/audio/2018646203/kiwifruit-crisis-how-hard-is-picking-really)

* 1. **New Zealand’s Northland: No kiwifruit picker shortage**

Unlike the Bay of Plenty, fortunately Northland does not appear to be suffering a lack of kiwifruit pickers. [Full article available here](http://www.freshplaza.com/article/194821/New-Zealands-Northland-No-kiwifruit-picker-shortage)

* 1. **[Agri-tech research centre opens in Palmerston North](http://www.freshplaza.com/article/195214/New-Zealand-Kiwifruit-picking-how-hard-is-it-reallyhttps%3A/www.radionz.co.nz/national/programmes/checkpoint/audio/2018646203/kiwifruit-crisis-how-hard-is-picking-really%22%20%5Ct%20%22_blank)**

[Palmerston North agritech company Biolumic marked a new phase in its progress with the opening of a world-first ultraviolet photobiology research and development centre at Massey University on Friday. The Massey University associate professor's research focused on using UV light to boost plant growth and crop yields. Over the past six years he has developed it into a commercial product with business partner, Biolumic chief executive, Warren Bebb. The new research and development centre would help develop tweaks to the treatment to tailor it for tomatoes, strawberries, cucumbers and other highly valuable crops – as well as other applications such as pest control.](http://www.freshplaza.com/article/195214/New-Zealand-Kiwifruit-picking-how-hard-is-it-reallyhttps%3A/www.radionz.co.nz/national/programmes/checkpoint/audio/2018646203/kiwifruit-crisis-how-hard-is-picking-really%22%20%5Ct%20%22_blank) [Full article available here](https://www.stuff.co.nz/business/innovation/104207911/palmerston-northbased-agritech-biolumic-opens-worldfirst-research-centrehttp%3A/www.stuff.co.nz/business/innovation/104207911/palmerston-northbased-agritech-biolumic-opens-worldfirst-research-centre)

* 1. **Bumper crop of winners from Young Vegetable Grower**

For the first time in the competition’s history, there are two winners of the Young Vegetable Grower of the Year competition: Esteban Ibanez and Gurjant Singh.

 Currently working as a production agronomist for Leaderbrand South Island and with a Bachelor in Agriculture, 30 year old Esteban is all about growing vegetables, and hopes that this win will be a step towards networking with people who share his same goals and ideals. Gurjant, 27, comes from a farming background in Punjab, India, and moved to New Zealand in 2008, studied Level 4 Horticulture at MIT, and began work at T&G in Favona, where he is now an assistant grower.

Esteban and Gurjant, together with four regional Young Fruit Growers, will go on to compete for the final Young Vegetable Grower 2018 title, and the ultimate Young Grower of the Year 2018 title, in Napier on 21-22 August. [Full article available here](http://www.hortidaily.com/article/43408/New-Zealand-Bumper-crop-of-winners-from-Young-Vegetable-Grower)

**Biosecurity**

* 1. **Tasmania's fruit fly fight hits $5.5 million**

The Tasmanian Government and the horticulture industry are confident the state's "largest-ever single biosecurity action" will successfully eradicate the fruit fly in the state by the start of spring.

Primary Industries Minister Sarah Courtney revealed in State Parliament on Wednesday that as of April 30, the government had spent $5.5 million tackling fruit fly incursions in the state's north through biosecurity response activities and assistance to growers and the wider industry.

"Modelling conducted by the Tasmanian Institute of Agriculture shows that the likelihood of fruit fly surviving long enough over winter to re-infest fruit on mainland Tasmania in the coming spring and summer is extremely low," Miss Courtney said. "Biosecurity Tasmania is also confident that the treatment applied on infected sites will result in eradication. [Full article available here](http://www.freshplaza.com/article/195212/Australia-Tasmanias-fruit-fly-fight-hits-5.5-million)

* 1. **Imported mangoes are likely source of fruit fly incursions into Tasmania**

The most likely cause of Tasmania’s fruit fly incursion, according to Biosecurity Tasmania chief executive Lloyd Klump, are mangoes imported into Tasmania during October and November 2017.

Dr Klump made this statement at the Fruit Growers Tasmania conference on Thursday. Mangoes were isolated as the likely source through “circumstantial evidence”, after similar shipments of infested fruit were also found in South Australia and Western Australia. “ [Full article available here](http://www.freshplaza.com/article/195244/Australia-Imported-mangoes-are-likely-source-of-fruit-fly-incursions-into-Tasmania)



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. **Chile Apples, Fresh, Grapes, Table, Fresh, Pears, Fresh 2018** MY2017/18 climatic conditions have been favorable for production, with enough chill hours during the winter and with enough rainfall that secured water availability for the next production seasons.  According to post sources yields are expected to reach average levels of a normal year   [Fresh Deciduous Fruit Semi-annual\_Santiago\_Chile\_5-3-2018](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Fresh%20Deciduous%20Fruit%20Semi-annual_Santiago_Chile_5-3-2018.pdf)
2. **Food India 2018 - Trade Show Announcement** The first edition of Food India, Inspired by SIAL will be held between September 16 -18, 2018, at Pragati Maidan Exhibition Centre in New Delhi. [Food India 2018 - Trade Show Announcement\_New Delhi\_India\_5-15-2018](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Food%20India%202018%20-%20Trade%20Show%20Announcement_New%20Delhi_India_5-15-2018.pdf)
3. **South Africa Apples, Fresh, Pears, Fresh, Grapes, Table, Fresh Deciduous Fruit Production and Exports under Severe Pressure from the Drought** The severe drought in the Western Cape, will severely impact the availability of irrigation water in the 2017/18 MY.  As a result, the 2017/18 MY production and export of deciduous fruits is expected to decrease significantly.   [Fresh Deciduous Fruit Semi-annual\_Pretoria\_South Africa - Republic of\_5-15-2018](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Fresh%20Deciduous%20Fruit%20Semi-annual_Pretoria_South%20Africa%20-%20Republic%20of_5-15-2018.pdf)

**Regulatory**

* 1. **EFSA reviews glyphosate residue levels**

The European Food Safety Authority has completed its review of the maximum levels of glyphosate that are legally permitted to be present in food. The review is based on data on glyphosate residues in food submitted to EFSA by all EU Member States. The maximum residue levels (MRLs) are set to ensure that consumers continue to be protected against excessive quantities of glyphosate in their diet. They are based on an analysis of all existing authorised uses of the herbicide in the EU. Uncertainties resulting from gaps in the data submitted are indicated in the assessment (see the full [Reasoned Opinion](http://www.efsa.europa.eu/en/efsajournal/pub/5263) for details).

The review – covering all crops treated with glyphosate – includes a risk assessment which shows that current exposure levels are not expected to pose a risk to human health. It also concludes that glyphosate is not expected to have an impact on the health of cattle, sheep, pigs, horses and chickens. [Full article available here](http://www.hortidaily.com/article/43356/EFSA-reviews-glyphosate-residue-levels)

* 1. **U.S. Putting ‘Trade War’ Against China on Hold,**

The Trump administration won’t impose tariffs on Chinese products for now, after the two nations made progress on trade issues last week, Treasury Secretary Steven Mnuchin said. Mnuchin’s remarks will be a relief to investors, who had feared the world’s two biggest economies were on the brink of an all-out trade conflict. The International Monetary Fund has warned that a global trade war would undermine the broadest global upswing in years.

Even so, Mnuchin said Trump “can always decide to put the tariffs back on if China doesn’t go through with their commitments.” Other members of the administration said duties are still an option if needed to get China to change its practices.“As this process continues, the United States may use all of its legal tools to protect our technology through tariffs, investment restrictions and export regulations,”

Mnuchin’s comments came after the two nations released a joint [statement](https://www.bloomberg.com/politics/articles/2018-05-19/china-to-significantly-boost-buying-of-u-s-goods-white-house) in which China proposed to “significantly increase purchases” of U.S. goods. The U.S. had a $376 billion trade deficit in goods with China last year. The shortfall was $337 billion when services are added.

During the trade talks, the delegations discussed expanding trade in manufactured goods, and each side agreed to strengthen cooperation on intellectual property. China will “advance relevant amendments” to its laws and regulations in that area, including its patent law, the White House said. [Full article available here](https://www.bloomberg.com/news/articles/2018-05-20/u-s-puts-tariffs-against-china-on-hold-mnuchin-says)

* 1. **EU: New rules for organic production**

The decision by the Council to adopt the text of the Regulation providing new rules for organic farming clears the final hurdle for the modernisation of the sector and the harmonisation of rules covering organic production both within the European Union and in non-EU countries. The new rules will enter into force on 1 January 2021.

The organic sector has been steadily increasing in importance – by 125% over the past ten years alone - but that growth was compromised by rules that were no longer fit-for-purpose. Producers, operators and trade partners now have two and half years to adapt to the new legislative framework which is also designed to protect the interests of the European consumer. The new legislative environment is a growth-friendly one which will contribute to this increasingly important and mainstream sector achieving its undoubted potential, based on the principle of a level-playing field."

[Full article available here](http://www.hortidaily.com/article/43446/EU-New-rules-for-organic-production)

**Business**

* 1. **US: Organic sector sees steady growth of 6.4 percent in 2017**

American consumers in 2017 filled more of their grocery carts with organic, buying everything from organic produce and organic ice cream to organic fresh juices and organic dried beans, according to the Organic Trade Association’s 2018 Organic Industry Survey.

Organic sales in the U.S. totaled a new record of $49.4 billion in 2017, up 6.4 percent from the previous year and reflecting new sales of nearly $3.5 billion. The organic food market hit $45.2 billion in sales, also breaking through to a new record for an increase of 6.4 percent.

Growth was well above that of the overall food market, which nudged up 1.1 percent. Organic continued to increase its penetration into the total food market, and now accounts for 5.5 percent of the food sold in retail channels in the U.S. Fruits and vegetables continued to be the largest organic food category, recording $16.5 billion in sales in 2017 on 5.3 percent growth. Fresh produce accounted for 90 percent of organic fruit and vegetable sales. [Full article available here](http://www.hortidaily.com/article/43427/US-Organic-sector-sees-steady-growth-of-6.4-percent-in-2017)

* 1. **Bayer launches online training in good agricultural practices**

Following last year’s launch of the Spanish BayGAP online training aimed at supporting farmers in Latin America, Bayer is now also offering an English version, for which participants can register with immediate effect. The virtual self-learning course is free and available worldwide. It will last from May 28 until July 16, 2018.

The seven-week training course was developed in cooperation with the Inter-American Institute for Cooperation on Agriculture (IICA) and provides farmers, auditors and agronomists all over the world with guidance in Good Agricultural Practices. In this way, the course helps farmers increase productivity and profitability, while reducing their environmental footprint, and comply with international certification standards, such as GlobalGAP. “This online training is a crucial step towards ensuring new economic opportunities for smallholder farmers and the implementation of sustainable agricultural practices,” says Ronald Guendel, Global Head of Food Chain Relations at Bayer.

The BayGAP online course comprises eleven modules including Integrated Pest Management (IPM), safe use of crop protection, application technology and food safety. Due to the fundamental importance of pollinators for agriculture, the online training also includes a module on bee health.
Our long-term training objective is to help farmers and traders attain international food safety standards such as GlobalGAP.” [Get more information on the BayGAP online training.](http://www.foodchainpartnership.cropscience.bayer.com/News-Overview/News/180508-BayGAP-goes-online.aspx)

[Full article available here](http://www.hortidaily.com/article/43475/Bayer-launches-online-training-in-good-agricultural-practices)

* 1. **Vietnam lags behind Thailand in use of blockchain in agriculture**

Agriculture is the livelihood of 70 percent of Vietnamese. However, high prices, unequal quality, and the lack of information about products have all made it difficult to compete with Thai products of the same kind in international and domestic markets.

Many smart agriculture solutions have been applied in the last few years. However, they have only assisted farmers in the production process, allowing them to automate irrigation or watch over the development of crops. Meanwhile, consumers are concerned about the origin of products.

In fact, some food processing and distribution companies have used product traceability technologies, but these are out-of-date technologies which are costly if used on a large scale. The use of blockchain technology for data management was recently explained at the 2018 Spring Agriculture Forum.
One of the apps tracks down the origin of products. All distributors and farmers can check the status of products to find out where the products are, how many products the clients have ordered, and how many products are in stock. The information allows them to optimize production plans, and predict demand for farm produce.[Full article available here](http://www.hortidaily.com/article/43484/Vietnam-lags-behind-Thailand-in-use-of-blockchain-in-agriculture)



 **Sustainability**

Full article available here

* 1. **Antifungal resistance could lead to ‘global food shortages’**

An international team of scientists have warned that growing levels of resistance to antifungal treatments could result in disease outbreaks that hit global food security. Crop destroying fungi were thought to account for a loss of 20 percent of global crop yields each year according to the study. Professor Matthew Fisher said the threat posed by growing resistance to fungicides was not given the attention it deserved. The researchers linked the growing risk presented by the outbreaks to developments in the modern food system. There was a threat to global food security, and the resistance also posed a threat to animal and human health. Fungal pathogens were responsible for a broad range of infections in humans and animals. [Full article available here](Antifungal%20resistance%20could%20lead%20to%20%E2%80%98global%20food%20shortages%E2%80%99)

  **Health**

* 1. **Berries and grapes may keep you breathing easy**

New research suggests that adding more grapes and berries to your diet could be a tasty way to give your lungs a boost. Researchers claim people who ate the most foods with a particular type of flavonoid, called anthocyanins, maintained the best lung function as they aged. Anthocyanins are found in dark-pigmented fruits and vegetables such as red grapes, blueberries and purple potatoes.

"A diet rich in fruits and vegetables can help protect the lungs against damage, preserving their functionality and reducing the risk of developing respiratory diseases later in life," [Full article available here](http://www.freshplaza.com/article/195022/Berries-and-grapes-may-keep-you-breathing-easy)

 **Innovation**

* 1. **"Nanoparticles could help rescue malnourished crops"**

Synthetic nanoparticles used to fight cancer could also heal sickly plants. The particles, called liposomes, are nanosized, spherical pouches that can deliver drugs to specific parts of the body (SN: 12/16/06, p. 398). Now, researchers have filled these tiny care packages with fertilizing nutrients. The new liposomes, described online May 17 in Scientific Reports, soak into plant leaves more easily than naked nutrients. That allows the nanoparticles to give malnourished crops a more potent pick-me-up than the free-floating molecules in ordinary nutrient spray. [Full article available here](http://www.hortidaily.com/article/43371/Nanoparticles-could-help-rescue-malnourished-crops)

* 1. **This Robotic Pollinator Is Like a Huge Bee With Wheels and an Arm**

In a greenhouse at West Virginia University, a machine called the BrambleBee is learning to roll around pollinating blackberry bushes. The BrambleBee works not unlike a self-driving car. First it uses [lidar](https://www.wired.com/story/lidar-self-driving-cars-luminar-video/), spraying lasers to build a 3-D map of the greenhouse so it can find its way around.

If BrambleBee determines a flower is ready for pollination, it will use a small 3-D printed brush of flexible polyurethane bristles on the end of its arm to gently stroke the blossom. This transfers pollen from the male reproductive organs, called anthers, to the pistils, where pollination commences.

[Full article available here](https://www.wired.com/story/robotic-pollinator/)

* 1. **Crop protection giants eye robotics**

Investors say a new breed of AI weeders could disrupt the $100 billion pesticides and seeds industry by reducing the need for universal herbicides and the genetically modified (GM) crops that tolerate them. Dominated by companies such as Bayer, DowDuPont, BASF and Syngenta, the industry is bracing for the impact of digital agricultural technology and some firms are already adapting their business models.

The stakes are high. Herbicide sales are worth $26 billion a year and account for 46 percent of pesticides revenue overall while 90 percent of GM seeds have some herbicide tolerance built in, according to market researcher Phillips McDougall.

In response, producers such as Germany’s Bayer have sought partners for their own precision spraying systems while ChemChina’s Syngenta, for example, is looking to develop crop protection.

[Full article available here](http://www.hortidaily.com/article/43474/Crop-protection-giants-eye-robotics)

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