MARKET NEWS





BETTER FOOD. BETTER HEALTH. BETTER WORLD.

CONTENTS

FOCUS ON CHINA1
Global ingredient manufacturer firm on hopes for its Chinese business growth
Gene editing improves soybean yield·······2
Chinese beverage brand unveils oversea brand in Paris2
INTERNATIONAL NEWS
Study finds leafy greens responsible for significant portion of U.S. foodborne illnesses and costs3
FDA Update on the Post-market Assessment of Tara Flour4
New Zealand shares 2023 recall data·····5
FDA Publishes Landmark Final Rule to Enhance the Safety of Agricultural Water7
ENTERPRISE NEWS 8
Enoki mushrooms recalled in Canada after testing finds Listeria8
Frito Lay recalls Sun Chips, other snacks because of contamination with Salmonella9
Hundreds sick in Vietnam after eating at a bakery ······10
Publisher's Platform: Basil Salmonella Outbreak is likely 38.6 times larger than reported11
MARKET NEWS - REPLY

Mérieux NutriSciences

Focus on China

Global ingredient manufacturer firm on hopes for its Chinese business growth

Kemin Industries, a global ingredient manufacturer, remains determined in the Chinese market in terms of its future business growth, after the company introduced its enzyme preparation products 40 years ago, according to a senior company executive.

"We are confident in the future development of our business in China, in investment of fixed assets including technology research and development and manufacturing, and in corporate mergers and acquisitions, digital transformation and attracting talents," said Gan Zhilin, president of Kemin China.

Gan made the remarks during a ceremony to celebrate the 40th anniversary of the company's first enzyme preparation product being introduced to the Chinese market. The ceremony was held in its headquarter and research and development center in Zhuhai, Guangdong province.

Kemin first introduced its animal nutrition technology and products into China in 1984, helping promote the development of the country's feed and animal husbandry industry, according to Gan.

"The enzyme preparation product, which helps improve animal nutrition digestion and absorption, has greatly helped drive the development of China's animal feed and aquaculture industry," said Gan.

The US-based company's products and technological services in China ranges from animal nutrition and health, aquaculture, food technologies, human nutrition and health, pet food, and rendering technologies to textile auxiliaries.

"With the increased demand of Chinese people for quality life, food safety, nutrition and health, our business has achieved health development over the years, covering the core links of the entire food chain from farms to dining tables," said Gan.

The company's research and development center, with an investment of 100 million yuan (\$13.83 million), was put into operation in Zhuhai in 2020, supporting not only China but also some of the research and development needs of the global market.

"The enzyme preparation solutions would span across more diversified industries, and would be continuously iterated and upgraded to provide customers with high-quality products and services consistently," said Gan.

Mérieux NutriSciences

Gene editing improves soybean yield

Chinese researchers have developed new soybean breeding lines using gene editing, potentially boosting the yield and protein content of the critical crop.

Soybeans are the world's leading source of plant protein for food and animal feed, and the second-largest source of vegetable oil. However, China, a major consumer, relies heavily on imports due to its own relatively low soybean yield.

The research, details of which were published in Nature Plants on Thursday, addressed that challenge. Scientists used gene editing to create soybean mutants with improved "nodulation ability", a key factor in nitrogen fixation from the air. This allows the plants to capture more nitrogen, a vital nutrient for growth and protein production.

One promising mutant, ric1a/2a, demonstrated balanced carbon allocation and enhanced carbon and nitrogen acquisition.

Field trials over three years showed that ric1a/2a lines produced 10 to 20 percent higher yields and slightly more protein compared to a leading Chinese variety, Hua Chun-6, all while maintaining oil content.

"This demonstrates that gene editing toward optimal nodulation improves soybean yield and quality," said Guan Yuefeng, one of the study's authors and a professor at Guangzhou University.

However, larger-scale testing is needed, with trials to date conducted on plots no larger than 100 square meters.

The research adheres to China's 2022 guidelines for assessing the safety of gene-edited crops, which require the use of experimental sites and the acquisition of safety certificates before wider cultivation.

The team aims to apply the technology to other soybean varieties domestically and, in the long run, to crops like peanuts and alfalfa.

The development offers a potential solution for increasing domestic soybean production and protein availability in China, which would reduce reliance on imports and contribute to global food security.

Chinese beverage brand unveils oversea brand in Paris

Chinese natural plant-based drinks manufacturer Guangzhou Wanglaoji Health Industry Co Ltd unveiled its international overseas brand "WALOVI" in Paris, France, during a Sino-French gastronomy festival, stepping up its efforts to increase its global presence.

"By infusing the oriental cultural essence of herbal tea in the food carnival, we hope to offer a unique taste experience and cultural immersion to a wider international audience," said Lin Yuyi, a media communication manager of Guangzhou Wanglaoji Health Industry Co.

Around 70 guests, including representatives from governments, cultural circles and culinary industries in China and France, embarked



on the culinary journey during the Sino-French gastronomy festival, set aboard a boat along the Seine on Saturday evening.

The festival is one of this year's premium cultural exchange events between China and France as the two countries celebrate the 60th anniversary of diplomatic relations.

The appearance of Wanglaoji at the festival, an important platform for cultural exchange between China and France, is one of the series of actions taken by the company to create a world-class IP for traditional Chinese medicine, according to Weng Shaoquan, Chairman of Guangzhou Wanglaoji Great Health Industry Co.

"We hope to use traditional Chinese herbal tea culture as a link to foster the dissemination and development of oriental health philosophy in Europe, inject new ideas into the exchange and mutual learning of civilizations between China and Europe," said Weng.

As one of the leading herbal tea makers in China, Wanglaoji has accelerated its efforts to promote its brand overseas, looking for new growth in overseas markets by releasing its international brand in several overseas cities in recent months and planning to build more overseas herbal tea museums.

Industry research and consulting organization Sullivan indicated in the Global Beverage Market Development Report that natural plant-based beverages have become one of the rapidly growing tracks in the global

beverage market, featuring broad prospects and huge market potential.

Wanglaoji is deeply involved in overseas markets, entering many overseas platforms such as Amazon, Costco, Yamibuy and Wee, with its sales network covering more than 150 countries and regions worldwide.

International News

Study finds leafy greens responsible for significant portion of U.S. foodborne illnesses and costs

Researchers from The Ohio State University have conducted a study on the attribution, burden and economic costs of foodborne illnesses associated with leafy greens in the United States. The study, led by Xuerui Yang and Robert Scharff, sheds light on the impact of leafy greens on public health and the economy.

Leafy green vegetables, including lettuce, spinach, and kale, are widely consumed and recognized as a major source of foodborne illnesses. This study aimed to provide comprehensive estimates specifically focusing on the attribution and burden of illness associated with leafy greens.

The study combined data from three outbreak-based attribution models with illness incidence and economic cost models to develop



detailed estimates for leafy greens and their subcategories. The findings reveal that leafy greens are attributed to up to 9.18 percent of foodborne illnesses caused by identified pathogens, with an estimated annual incidence of up to 2.3 million illnesses in the United States.

Furthermore, the economic cost of these illnesses is substantial, reaching up to \$5.278 billion annually. The most common pathogens associated with leafy greens include Norovirus, Shiga toxin-producing Escherichia coli (STEC), Campylobacter, and nontyphoidal Salmonella. Among leafy greens, lettuce accounts for the highest percentage of outbreaks, illnesses, and costs.

Notably, romaine lettuce is particularly significant, with nearly 20 percent of Shiga toxin-producing Escherichia coli O157:H7 illnesses in the United States linked to romaine consumption. This translates to an estimated 12,496 illnesses and \$324.64 million in costs annually.

The study underscores the importance of addressing food safety issues related to leafy greens, given their widespread consumption and significant contribution to foodborne illnesses and economic burdens. It also highlights the need for targeted interventions and regulatory measures to mitigate the risks associated with leafy green consumption.

While the study provides valuable insights into the attribution and burden of illness associated with leafy greens, it also acknowledges several limitations. These include the reliance on outbreak data, potential underestimation of illnesses, and challenges in identifying specific food ingredients in complex foods.

The full study can be found here.

FDA Update on the Post-market Assessment of Tara Flour

Today, the U.S. Food and Drug Administration (FDA) posted on its website its determination that tara flour in human food does not meet the Generally Recognized As Safe (or GRAS) standard and is an unapproved food additive. The FDA's assessment of the ingredient is detailed in a memo added to the agency's public inventory. Increased transparency of our assessment of ingredients in the food supply is part of our approach to enhance food chemical safety.

Under the Federal Food, Drug, and Cosmetic (FD&C) Act, any ingredient used or intended for use in food must be authorized by the FDA for use as a food additive unless that use is Generally Recognized As Safe or GRAS by qualified experts or meets a listed exception to the food additive definition in the FD&C Act. An unapproved food additive is deemed to be unsafe under the FD&C Act.

In 2022, Daily Harvest used tara flour in a leek and lentil crumble product which was associated with roughly 400 adverse event reports. The firm took prompt action to voluntarily recall the product and conduct their own root cause analysis, during which they identified



tara flour as a possible contributor to the illnesses. To date, the FDA has found no evidence that tara flour caused the outbreak; however, it did prompt the agency to evaluate the regulatory status of this food ingredient.

The FDA's evaluation revealed that there is not enough data on the use of tara flour in food, or a history of its safe use, to consider it GRAS. There is no food additive regulation authorizing the use of tara flour in food. Uses of food ingredients that are not GRAS, not authorized as food additives, and not excepted from the Federal Food, Drug, and Cosmetic (FD&C) Act's food additive definition are unapproved food additives. Food that is, or contains, an unsafe food additive is considered adulterated.

FDA's Continued Monitoring of Tara Flour in the Food Supply

Manufacturers who are considering using tara flour as an ingredient in food are responsible for ensuring that its use is safe and lawful and are encouraged to consult with the FDA. At this time, the FDA is not aware of evidence that shows that tara flour is a food ingredient being developed domestically or that there are any products containing tara flour that are currently being manufactured in the U.S.

The FDA instituted screening at ports of entry for tara flour used as an ingredient in imported food or imported for sale in bulk. The agency has not detected any recent shipments of tara flour in imported products as of today.

The FDA remains committed to monitoring new ingredients in the food supply to ensure they meet relevant safety standards. The FDA's assessment of chemicals in the food supply is part of our commitment to food safety and public health.

New Zealand shares 2023 recall data

According to the country's food agency, allergens in food were the main reason for recalls in New Zealand in 2023.

Of 70 consumer-level recalls in 2023, 26 were due to allergens. Milk caused the most with 12, said New Zealand Food Safety.

Microbiological contamination led to 23 recalls, and 14 were due to physical contamination, such as glass, metal, and plastic.

Ten recalls were because of Salmonella Montevideo, and four because of Salmonella Livingstone. A dairy product was recalled because of the non-pathogenic Listeria seeligeri. One recall was because of the possible presence of Hepatitis A. Between June 2022 and July 2023, 39 cases of Hepatitis A were reported. The source of the outbreak was imported frozen berries.

Salmonella tahini incident

Mixed foods, such as meals, pies, pizzas, and snacks, were named in 18 recalls, meat and meat products in 12 recalls, and fruit and vegetables in 11 recalls.

Mérieux NutriSciences

The number of recalls is up from 2022, when 60 notices were published. In Australia, 87 recalls were issued in 2023.

New Zealand Food Safety supported businesses to conduct consumer-level recalls. In total, 48 recalls were for domestically produced foods and 22 for imported foods in 2023.

Salmonella in imported sesame seed-based products was the most significant food safety event of 2023, resulting in 14 recalls affecting 65 products. Recalls were initiated after Salmonella was detected during routine testing by a New Zealand business making tahini products.

"A complex investigation by our food compliance services team – involving product testing and tracing of ingredients through the domestic market – found the contamination was from tahini imported from a Turkish manufacturer," said Vincent Arbuckle, New Zealand Food Safety deputy director-general.

"The team dug deeper, and subsequent online surveillance and scanning of international food safety issues also identified concerns about products from a manufacturer in Jordan. By the time all the sesame seed-based products were tracked down and removed from sale, we had supported 14 recalls affecting 65 products. And, most importantly, we had no confirmed reports of related illness."

Raw milk example

Arbuckle said recalls are a sign that the food safety system is working to protect consumers.

"New Zealand's food safety system has a strong track record of keeping people safe and – given the volumes of food being produced, manufactured, and imported – incidences of related illness remain rare." he said.

"However, there are occasions when food safety issues occur, and that's when we work quickly with food businesses to recall the affected product, removing it from the food supply chain and promoting public awareness. It's important to note that the number of recalls is not an accurate indicator of the level of risk to consumers. Numbers depend on many factors, including regulatory changes, business and public awareness of food-related problems, and reporting of those problems."

Another highlight from 2023 was the possible presence of Listeria and Campylobacter in raw milk, which led to three recalls. While there were no associated reports of Listeriosis, there were three related cases of Campylobacter infection.

Of the 70 recalls, 43 were due to businesses notifying New Zealand Food Safety of required recall action, and 16 were initiated as part of the agency's surveillance work, existing investigations, or notifications from overseas government authorities.

In 2023, New Zealand sent 57 communications via the International Food Safety Authorities Network (INFOSAN) or to the INFOSAN Secretariat on 23 events or food safety issues. Thirteen of these were linked to biological hazards.

FDA Publishes Landmark Final Rule to Enhance the Safety of Agricultural Water

Today, the U.S. Food and Drug Administration (FDA) published a <u>final</u> <u>rule on agricultural water</u> that represents an important step toward enhancing the safety of produce. The revised requirements are intended to enhance public health by improving the safety of water used in produce cultivation. The revisions are also designed to be practical across various agricultural water systems, uses, and practices, while remaining adaptable to future advancements in agricultural water quality science.

The final rule replaces certain pre-harvest agricultural water requirements for covered produce (other than sprouts) in the 2015 produce safety rule with requirements for systems-based agricultural water assessments to determine and guide appropriate measures to minimize potential risks associated with pre-harvest agricultural water. Specifically, this rule:

• Establishes requirements for agricultural water assessments that evaluate a variety of factors that are key determinants of contamination risks associated with pre-harvest agricultural



water. This includes an evaluation of the water system, water use practices, crop characteristics, environmental conditions, potential impacts on water from adjacent and nearby land, and other relevant factors.

- Includes testing pre-harvest agricultural water as part of an assessment in certain circumstances.
- Requires farms to implement effective mitigation measures within specific timeframes based on findings from their assessments. Hazards related to certain activities associated with adjacent and nearby land uses are subject to expedited mitigation.
- Adds new options for mitigation measures, providing farms with additional flexibility in responding to findings from their pre-harvest agricultural water assessments.

Farms are required to conduct assessments of their pre-harvest agricultural water annually, and whenever a significant change occurs, to identify any conditions likely to introduce known or reasonably foreseeable hazards into or onto covered produce or food contact surfaces.

These revised requirements reflect recent science, findings from investigations of several produce-related outbreaks, and feedback from a variety of stakeholders on the agricultural water requirements in the Produce Safety Rule, which were previously published in 2015.



These revisions will more comprehensively address a known route of microbial contamination that can lead to preventable foodborne illness.

The rule also finalizes the dates for compliance with the pre-harvest agricultural water requirements for non-sprout covered produce as follows:

- For very small farms: 2 years, 9 months after the effective date of the final rule
- For small farms: 1 year, 9 months after the effective date of the final rule
- For all other farms: 9 months after the effective date of the final rule

The rule does not alter existing requirements for agricultural water for sprouts, for which compliance dates have passed. It also does not alter existing requirements for <u>harvest and post-harvest agricultural water activities</u>. Additional information about compliance dates can be found on the <u>FDA Proposes Compliance Date Extension for Pre-Harvest Agricultural Water Requirements</u> webpage.

The agency is committed to taking an "educate before and while we regulate" approach to supporting compliance. Along with the rule, the FDA also released a number of fact sheets, including one that provides an overview of agriculture water assessments and mitigation

measures, and another that offers more details on factors for conducting these assessments. These resources are available in Spanish. The FDA has also updated the Agriculture Water Assessment Builder. Additionally, the Agency is planning a webinar for all interested stakeholders. Registration information will be provided in a forthcoming announcement.

Importantly, the FDA will work closely with our state partners to implement these changes. The agency plans to work closely with state regulators, National Association of State Departments of Agriculture (NASDA), educators, and others, including the Produce Safety Alliance, to provide the necessary training to implement these changes to the agricultural water requirements.

Enterprise News

Enoki mushrooms recalled in Canada after testing finds Listeria

Lian Teng Produces Inc. is recalling Meta brand Enoki Mushrooms from the marketplace because of possible Listeria monocytogenes contamination.

This recall was triggered by Canadian Food Inspection Agency (CFIA) test results.



According to the CFIA, the recalled product was distributed in Ontario and possibly other provinces and territories in Canada.

Recalled product:

As of the posting of this recall, there have been no reported illnesses associated with the consumption of this product.

Recalled products should not be consumed, used, sold, served or distributed.

Frito Lay recalls Sun Chips, other snacks because of contamination with Salmonella

Frito Lay is recalling certain snacks in Canada, including Sun Chips, because of Salmonella contamination. The company distributed the snacks nationwide.

According to a recall notice posted by the Canadian Food Inspection Agency, the company initiated the recall. No background was given for the company's action.

Individual bags and cases of product are included in the recall.

Consumers are urged to check their homes for the recalled products and throw away any that they may have on hand. The products have long shelf life, so consumers and retailers are encouraged to check the best-by dates on the packages.

Brand	Product	Size	UPC	Codes
Frito Lay	SunChips	All	060410040591	2024 JL 16
	Multigrains Harvest	sizes	060410066232	to
	Cheddar		060410001295	2024 AU 13
	Snacks		060410037249	inclusively
			060410003923	
			060410053942	
			060410053119	
Frito Lay	Original Munchies Snack Mix	All	060410001806	2024 JL 16
		sizes	060410003862	to
	SHACK WIIX		060410067826	2024 AU 13
			060410054826	inclusively
			060410054628	
			060410039342	
Frito Lay	Variety	448 g	060410074817	2024 JL 16
	Packs Cheesy Mix			to
				2024 AU 13



				inclusively
Frito Lay	SunChips Multigrains Harvest Cheddar Snacks	32 packs	060410037256	2024 JL 16 to 2024 AU 13 inclusively
Frito Lay	SunChips Multigrains Harvest Cheddar Snacks	40 packs	060410222768	2024 JL 16 to 2024 AU 13 inclusively
Frito Lay	Original Munchies Snack Mix	40 packs	060410221228	2024 JL 16 to 2024 AU 13 inclusively

Hundreds sick in Vietnam after eating at a bakery

Almost 550 people have fallen sick in a large food poisoning outbreak in Vietnam.

People were taken ill after eating at a bakery in Long Khánh, a city in Đồng Nai Province.

In the past week, 547 people were sickened, according to the Dong Nai Department of Health.

466 cases have been discharged from hospitals and continue to be monitored at home, while 81 patients are being treated in hospital.

Operations at the Cô Băng bakery were temporarily suspended while authorities investigated the incident. Officials said more than 1,000 banh mi sandwiches were sold to consumers, with some later developing symptoms of diarrhea and vomiting. These sandwiches usually come on a baguette with pate, pork, and vegetables.

Salmonella suspicion

An inspection by authorities found the bakery did not have a business license or an eligible food safety certificate. Four employees did not have a certificate of food safety training or a health certificate.

A meeting with local food producers and traders earlier this week revealed that only around 20 percent of 132 bakery outlets in Long Khánh have business licenses. In 2023, a training session was organized for food businesses in the area. The owner of Co Bang bakery attended but was not given a certificate on food safety.

Hospitals conducted test results on 29 patient samples, and the Ho Chi Minh City Institute of Public Health recorded 16 positives for two Salmonella and E. coli strains, and nine samples were positive for E. coli.



Results from food samples taken at the implicated bakery by the Ho Chi Minh City Institute of Public Health recorded Salmonella positives in four of eight samples.

Officials said these findings mean it can be concluded that Salmonella caused the food poisoning.

Wider picture

Deputy Prime Minister Tran Luu Quang asked the Ministry of Health to promote information and advice on the risk of food poisoning and how to prevent it, especially in tourist areas, school cafeterias, and street food sites.

In 2023, Vietnam recorded 125 epidemics that infected more than 2,100 people and caused 28 deaths, which is an increase on 2022 figures.

In March 2024, the Ministry of Health's Vietnam Food Administration and the Republic of Korea's Ministry of Food and Drug Safety announced the official operation of a food safety management system in Vietnam.

The announcement was the outcome of a project between the two governments approved by the Vietnamese Prime Minister in 2020.

Most food production and processing facilities in Vietnam are small-scale and follow seasonal production. Among the country's 500,000 food processing establishments, 85 percent are small- and medium-sized and family-run with limited equipment and facilities.

The system has five components: an online food safety reporting system, a public web portal with general food safety information, a professional portal for officials, and a system monitoring laboratory information.

Publisher's Platform: Basil Salmonella Outbreak is likely 38.6 times larger than reported

Only a small proportion of all *Salmonella* infections are diagnosed and reported to health departments. It is estimated that for every reported case, there are approximately 38.6 undiagnosed infections. The CDC estimates that 1.4 million cases, 15,000 hospitalizations, and 400 deaths are caused by *Salmonella* infections in the U.S. every year. Overall, the incidence of *Salmonella* in the United States has not significantly changed since 1996.

As of April 17, 2024, a total of 12 people infected with the outbreak strain of *Salmonella* have been reported from 7 states – Florida, Georgia, Minnesota, Missouri, New Jersey, Rhode Island and Wisconsin. Illnesses started on dates ranging from February 11, 2024, to April 2, 2024. Of 11 people with information available, 1 person has been hospitalized. No deaths have been reported.



Of 12 people interviewed, 10 (83%) reported shopping at Trader Joe's. Seven sick people reported buying or likely buying organic basil in 2.5 oz clamshell-style containers from Trader Joe's. Additionally, traceback data collected by FDA determined that Infinite Herbs, LLC, in Miami, Florida, was the supplier of the 2.5-oz packages of organic basil sold at Trader Joe's stores.

While this investigation is ongoing, do not eat Infinite Herbs organic basil sold at Trader Joe's stores in those 29 states and Washington DC. The basil was sold in 2.5 oz clamshell-style packages. Investigators are working to determine if additional products may be contaminated.

Salmonella is a bacterium that causes one of the most common enteric (intestinal) infections in the United States – salmonellosis. Salmonella are found in the intestinal tract of wild and domesticated animals and humans. The term Salmonella refers to a group or family of bacteria that variously cause illness in humans. Salmonella serotype typhimurium and Salmonella serotype enteritidis are the most common in the United States. Most Salmonella infections are caused by eating contaminated food, especially food from animal origins. One study found that 87% of all confirmed cases of Salmonella were foodborne, with 10 percent from person-to-person infection and 3% caused by pets.

Salmonella bacteria can be detected in stool. In cases of bacteremia or invasive illness, the bacteria can also be detected in the blood, urine, or on rare occasions in tissues. The test consists of growing the

bacteria in culture. A fecal, blood or other sample is placed in nutrient broth or on agar and incubated for 2-3 days. After that time, a trained microbiologist can identify the bacteria, if present, and confirm its identity by looking at biochemical reactions. Treatment with antibiotics before collecting a specimen for testing can affect bacterial growth in culture, and lead to a negative test result even when Salmonella causes the infection.

Salmonella infections can have a broad range of illness, from no symptoms to severe illness. The most common clinical presentation is acute gastroenteritis. Symptoms include diarrhea, and abdominal cramps, often accompanied by fever of 100°F to 102°F (38°C to 39°C). Other symptoms may include bloody diarrhea, vomiting, headache and body aches. The incubation period, or the time from ingestion of the bacteria until the symptoms start, is generally 6 to 72 hours; however, there is evidence that in some situations the incubation can be longer than 10 days. People with salmonellosis usually recover without treatment within 3 to 7 days. Nonetheless, the bacteria will continue to be present in the intestinal tract and stool for weeks after recovery of symptoms—on average, 1 month in adults and longer in children.

In approximately 5% of non-typhoidal infections, patients develop bacteremia. In a small proportion of those cases, the bacteria can cause a focal infection, where it becomes localized in a tissue and causes an abscess, arthritis, endocarditis, or other severe illness.

Infants, the elderly, and immune-compromised persons are at greater risk for bacteremia or invasive disease. Additionally, infection caused antimicrobial-resistant non-typhoidal Salmonella serotypes appears to be more likely to cause bloodstream infections. Overall, approximately 20% of cases each year require hospitalization, 5% of cases have an invasive infection, and one-half of 1% die. Infections in infants and in people 65 years of age or older are much more likely to require hospitalization or result in death.



If you have any views or comments on the articles in the marketing news please feel free to contact us on the following email address: sales.china@mxns.cn

