

News from the World Of Spices

December 2021



From the Chairman's desk

Greetings from World Spice Organisation!!!

The WSO team wishes all our members a very Happy 2022!!!

We are glad to share a quick recap of our activities in the last quarter of the year 2021.

Ethylene Oxide Data Collection

As was updated in the previous editions of the WSO Newsletter, WSO is conducting a study and data collection on the presence of ETO residues in spices. As a part of this study, we had tested the same lots of spices at different stages of processing commencing from the raw material stage to identify the sources of natural occurrence or cross contamination during storage and processing. However, as the number of data points collected in this study were limited and insufficient it was not possible to reach any definite conclusions. We therefore decided to collect additional data from the spices that had been analysed just before shipment.

Data on about 1700 samples pertaining to 19 different spices was obtained. The data indicated evidence of natural occurrence as more than 80% of farm grade chilli samples were detected with ETO residues. Cases of ETO detection were observed in onions only when they were dehydrated, highlighting the importance of introducing dehydration factors for ETO. The detailed study also showed substantial evidence for cross-contamination during storage.

This data was submitted to the Spices Board for further evaluation and study.

Chlorpyrifos

Chlorpyrifos is a pesticide which is widely used in spices and other crops. The 2020 move to ban Chlorpyrifos in the European Union has had an effect on spice exports from India to the EU.

Recently the United States revoked all “tolerances” for Chlorpyrifos in the country from February 2022 onwards. This act could severely affect the spice exports from India and Spices Board- upon the request from WSO- has sent a letter to the concerned authorities in the USA appealing for an extended timeframe for the implementation of the ban.

Lead Contamination

Contamination of spices with lead has been an issue for the Indian spice industry for a long time particularly in products like turmeric. Considering the increasing concerns of the buying countries and consumers about the possible toxic effects posed by such heavy metals, it is very important to ensure that the lead residues in our spices are well below the internationally prescribed Maximum Residue Limits (MRLs). The latest EU regulation on lead limits seems to be reassuring as the prescribed MRLs are more or less acceptable and achievable. However, the MRLs fixed by Codex Alimentarius are equally important as they are accepted and used as a reference by many countries while setting up their national regulations. In this regard, WSO had done some data collection on lead residues found in spices from our members and this data has been submitted to the Spices Board for their evaluation. WSO has requested the Board to take up the matter with Codex so that food safe and achievable MRLs for Lead and other Heavy Metals are arrived at.

NSSP

Well experienced experts and scientists familiar with farm extension activities have been identified as master trainers for the NSSP training sessions and they have already commenced training sessions for the FPOs attached to the NSSP. Five Training of the trainer (ToT) programmes were completed in the region of Andhra Pradesh, Karnataka, Tamil Nadu, & Telangana. The master trainers have also conducted field visits to the FPOs to give them hands on information about the recommended practices. ToTs for 5 FPOs based in Gujarat and 3 FPOs from Rajasthan have been planned in the coming months. These will be conducted by the master trainers selected for the regions. Farmer diaries have also been sent to some of the FPOs and members of NSSP.

Some international organizations working in the field of sustainability have shown interest in joining the programme and their experience in the field would definitely help in a better

execution of NSSP. Discussions have also been going on about harnessing the possibilities of carbon credit market so that FPOs who are a part of NSSP will get extra benefits

NRCSS Expert Consultation

WSO participated in an Expert Consultation on Accelerating Export of Seed spices: Challenges and opportunities organized jointly by Trust for Advancement of Agricultural Sciences (TAAS), ICAR-National Research Centre on Seed Spices, Indian Society of Seed Spices, and Spice Board on 22nd November 2021.

Presentations were made at the Thematic session on Challenges and Opportunities in seed spice exports-as well as on the topic “Future Strategy on Seed spice Export”. The major challenges faced by the industry such as Food safety issues, Presence of contaminants such as pesticide residues and other adulterants, Lack of global harmonization of standards and the Need to improve intrinsic quality, productivity and production of spices were touched upon in the presentations. Importance of Capacity building for farmers and FPOs, Promoting sustainable and biodiversity practices, Ensuring better prices for sustainable produce were stressed on as solutions to some of the major challenges. These together with Technological innovations, Research and Development for Improved Varieties of Seeds, Harnessing the export possibilities of Value added spices and Collaboration and Regular interactions between Industry, Government and other stakeholders formed the broad framework of the strategy to increase the export potential of seed spices. The recommendations that were made would be finalised and discussed at the NRCSS and TAAS. It will then be presented as a strategy plan to the government.

The shifting sands of food recalls

Red, white and yellow onions. Garden salad. Bean sprouts. Parsley.

These are just some of the U.S. Food and Drug Administration-posted recalls seen this fall. But as one food safety expert says, if it seems like there are more produce recalls recently, it's not indicative that the food system is less safe.

Instead, it likely tracks back to the updating of the Food Safety Modernization Act (FSMA) under President Barack Obama in 2011. "This was the first major overhaul of food oversight in 70 years," says Barbara Kowalczyk, director for the Center for Foodborne Illness Research and Prevention and assistant professor of food safety and public health at The Ohio State University in Columbus. With that update though came more enforcement tools for the FDA which included mandatory recall authority. "So, we're better at finding problems today compared to even five or 10 years ago. The FDA has more regulatory oversight," says Kowalczyk.

However, as it's touched virtually every aspect of society, food safety has felt the effects of the pandemic. Starting with a backlog in food inspections. "During the pandemic, the FDA suspended inspections for food safety," says Kowalczyk. That said, under FSMA, the updated oversight included increasing facility inspections from once every 10 years to once every seven or once every five for higher risk facilities. "So, it's not like they were inspecting facilities every year."

[Read more](#)

Probe into 'food fraud' finds unwanted ingredients in herbs and spices

Almost one-fifth of all herbs and spices sold in the EU are suspected of being adulterated with other ingredients, a major new study has revealed.

The largest-ever investigation into the authenticity of culinary herbs and spices sold to consumers in the EU found that 17% of all products were suspected of containing unauthorised products, colouring or dyes.

The study was commissioned by the European Commission amid concerns over the scale of "food fraud" arising from adulterated herbs and spices being on sale within the EU and fears the presence of unidentified bulking or colouring agents were going undetected.

The study by the EU's Joint Research Centre found the biggest problem with supplies of oregano with almost half of all samples of the herb containing other ingredients, mostly olive leaves.

It found that 48% of oregano samples were suspected of being adulterated as well as 17% of pepper samples, 14% of cumin, 11% of turmeric, 11% of saffron and 6% of paprika/chilli.

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What Is Plasticulture, and Is It Sustainable? Overview and Agricultural Impact

Plasticulture refers to the use of plastic in agricultural activities. This can include soil fumigation, irrigation, the packaging of agricultural products, and the protection of harvests from precipitation. Plastic also appears as a mulch or greenhouse cover.

While plasticulture has been touted as a way for farmers to efficiently grow crops with less water and fewer fertilizers and pesticides, it has also been called into question for being environmentally unsustainable. Problems cited include the contamination of soil, water, and food; air pollution; and large quantities of plastic waste.

The history of plasticulture started with the mass production of plastics, which began in the 1930s. Researchers discovered that one type of plastic, polyethylene, was well-suited to agricultural use because of its durability, flexibility, and chemical resistance. It was first used as a greenhouse construction material in the 1940s as an alternative to glass.¹ The widespread use of plastic as an artificial mulch soon followed.

Mulching

Plastic mulch, which utilizes sheets of plastic that cover the soil with holes allowing plants to grow through, became commercially available in the 1960s. Since then, it has become the most widely-used form of plasticulture.

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‘Long-term poisoning’: should Australia’s food safety standards consider health issues like obesity?

Demand for Australian-manufactured infant foods is booming overseas, thanks to the country’s reputation for producing high-quality and safe food.

Australia’s products have earned such a reputation because they are officially deemed free from harmful chemicals, and bacteria that can lead to food poisoning, but the high-quality label doesn’t take into account the nutritional content of the food.

When it comes to the healthfulness of the products, a review by consumer advocate group Choice, published in August, found that more than half of the 78 packaged meals and snacks marketed for toddlers contained harmful sugars. The worst offenders contained more than 60% sugar.

That has raised questions that a review of the Food Standards Australia and New Zealand [FSANZ] Act is currently grappling with: under food safety and labelling standards, should “safety” relate only to whether the product is safe to eat and free from bacteria and food-borne disease? Or should the labelling also reflect whether the ingredients are associated with longer-term harms, such as obesity, heart disease and cancer?

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Non-GMO Certification requirement to hamper expanding market access for farm produce : US

The US has raised fresh concerns over the Food Safety and Standards Authority of India (FSSAI) order mandating non-GM origin and GM-free certification for import of 24 identified food crops, including apples, pineapples and wheat, and has argued that this was impeding joint efforts to increase market access for agricultural items, sources have said.

India justifies stand on non-GMO certification

At the recent India-US Trade Policy Forum meet, India held its ground and justified the requirement by re-emphasising that GM food was not allowed in the country but Washington insisted that there should be more discussions on the matter and exploration of alternatives.

“The TPF joint statement does not specifically mention non-GMO certification as India did not want to give any commitments. Instead, it talks about exchanging information on standards and conformity assessment procedures to ensure that requirements are no more trade-restrictive than necessary and are in line with international agreements,” the source said.

There will be talks about the certification issue in the working group meetings of the TPF going forward, but India has not given any commitments, the source added.

[Read more](#)

India: FSSAI steps in to regulate advertising for food business operators

The Food Safety and Standards Authority of India (FSSAI) set up under the Food Safety and Standards Act, 2006 was created for laying down science-based standards for articles of food and to regulate their manufacture, stockpiling, circulation, sale and import with an aim to ensure availability of safe and wholesome food for human consumption.

FSSAI has finalised guidelines to regulate claims and advertisements by food business operators in relation to consumable food items. These regulations are aimed at establishing fairness in claims and advertisements of food products and make food businesses accountable for such claims/advertisements to protect consumer interests.

With the COVID-19 pandemic and increased focus of consumers towards health and wellbeing, the attention of consumers has been towards food that provide health benefits. Therefore, during this phase many companies have launched products that claim to provide better nutrition and related health benefits. In this context, the guidelines are timely to balance the interest of consumers and food companies.

The regulations lay down general principles for claims and advertisements; criteria for nutrition claims (including nutrient content or nutrient comparative claims) etc.

[Read more](#)

FSSAI introduces norms to monitor firms importing packaged food

While the regulations for Indian manufacturers have been in place, the FSSAI on 3 November 2021 finally introduced a framework for foreign manufacturing facilities that bring food items to India with the aim to improve food safety.

As a first step, all facilities manufacturing and exporting certain food products to India will need to register with FSSAI.

The governing body is expected to update the categories of the food products on a regular basis based on its risk assessment.

The registration, according to the notification, will be issued for a two-year period.

The notification also added that, "Foreign food manufacturing facilities may be inspected if required. Officials from FSSAI and relevant ministry or organisation or department or recognised auditing agency shall be nominated by the Food Authority for the purpose of inspection of foreign food manufacturing facilities."

The FSSAI in the notification also mentioned that no inspection shall be required in case of such categories of food that are covered under mandatory Bureau of Indian Standards Certification Mark Scheme and where the Bureau of Indian Standards scheme of inspection includes the requirements specified under Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011.

[Read more](#)

Some dried spices contain 'concerning' levels of toxic heavy metals, study finds

Dried thyme and oregano were among the most "surprising and worrisome" sources of heavy metals exposure uncovered in a recent investigation from Consumer Reports.

Nearly a third of 126 store-bought spices tested by the team had high enough levels of arsenic, lead, and cadmium combined to pose a health risk for regular consumers, according to the report published Tuesday. The organization tested spices made by McCormick, Trader Joe's, and Whole Foods, among other popular national and private-label brands.

Thirty-one products had lead levels that exceeded the maximum amount anyone - adult or child - should have in a day, according to Consumer Reports' experts. Frequent exposures to even smaller amounts of lead and other heavy metals can affect brain development in children and overall health in adults.

Thyme and oregano topped the charts for the most widespread contamination; all five thyme products and seven types of ground oregano tested had concerning levels of heavy metals. Not all of the spices tested positive for heavy metals. Black pepper, coriander, curry powder, garlic powder, saffron, sesame seed and white pepper all passed with "no concern." [Read more](#)

When supply chains do more climate damage than products themselves

As demonstrated by the COP26, most public debate surrounding greenhouse gas emissions tends to focus on the energy sector, even though other segments of the global economy (like agriculture) also have an oversized carbon footprint. That is not least because of the supply chains behind these industries, which include processing, packaging, transport, consumption, and waste.

In fact, according to the UN's Food and Agriculture Organization (FAO), agricultural supply chains have a bigger climate footprint than farming itself, even as the food and agriculture sector as a whole accounted for nearly a third of all greenhouse gas emissions in 2019. Since 1990, a key trend has been "the increasingly important role of food-related emissions generated outside of agricultural land, in pre- and post-production processes along food supply chains, at all scales," per FAO chief economist Maximo Torero.

The environmental cost of globalization

In our increasingly globalized economy, the energy required to ship products between countries and continents is now a major contributor to climate change. The global maritime shipping industry, for example, emits more carbon per year than Germany. Although emissions from maritime shipping have not been factored into the Paris Agreement, the industry's carbon footprint (which stands at around 3% of global emissions at present) could balloon to as much as 17% of total annual CO2 emissions by mid-century, according to some analysts. [Read more](#)

UK will 'pause' publication of data showing biodiversity in decline

Conservationists and politicians have criticised the UK government for its decision to temporarily stop publishing new data on the state of the country's wildlife and habitats in 2022, the same year as a landmark UN biodiversity summit.

Figures published today by the Department for Food, Rural Affairs & Environment (Defra) show a deteriorating picture for habitats, as well as for priority species, such as otters and red squirrels; woodland birds and butterflies that are reliant on specific habitats, such as the Lulworth skipper (*Thymelicus acteon*).

The UK, like many other countries, has failed to arrest declines in biodiversity in recent years despite signing up to global targets to protect nature. In April 2022, nations are expected to renew their commitment to act by agreeing new biodiversity targets for 2030 at the COP15 summit in Kunming, China.

However, Defra said that it will "pause" publishing new data on the state of UK biodiversity in 2022 to enable a "thorough review" of the indicators, such as the pressures from invasive species or the health of bird populations and other animals. Publication will not resume until 2023.

Mark Avery, a conservationist and former conservation director of the UK's Royal Society for the Protection of Birds, says: "It seems like Defra's response to a biodiversity crisis is to stop publishing the data that show it's happening. That's not very good, is it?" [Read more](#)

What Is Carbon Farming? Here's What You Need To Know

Carbon farming is an agricultural approach that can help sequester carbon into the soil on farmland. Farmers can do this by making adjustments to the way they farm, such as minimising the use of tillage or planting cover crops. Or use organic farming methods and agroforestry to draw even more CO₂ from the atmosphere into the soil.

Planting new forests, restoring degraded forests or depleted arable land and improvements in forest management are also ways of effective carbon farming. In addition, it can involve protecting and conserving land that already does boast carbon-rich soils, such as grassland and peatlands.

Many of these practices are already promoted under different names, including organic farming, regenerative agriculture, and permaculture.

Why is soil so important?

Industrial agricultural practices have wreaked havoc on the planet's soil health. Globally, it is estimated that agriculture and forestry practices account for nearly a quarter of carbon emissions—and a big source of the industry's environmental impact comes from how the overuse of pesticides, fertilisers, and monocropping techniques have depleted soil.

Depleted soil is less able to store water and absorb carbon dioxide. By applying carbon farming techniques, the soil can be replenished to be able to sequester carbon again, while also being able to maintain its surrounding biodiversity of animals, flora, and fauna. [Read more](#)

Californian wineries turn to owls as answer for growing pest problem

Winemakers must pay close attention to their soil, the rain, the heat, and the sunlight. But rodents like gophers and mice can wreak havoc on a vineyard. Rather than turning to rodenticides to deter pests, graduate students at Humboldt State University in California are testing a more natural approach by using owls.

The experiment is part of a long-term research study under the direction of professor Matt Johnson of the university's Department of Wildlife. The current cohort, including students Laura Echávez, Samantha Chavez, and Jaime Carlino, has placed around 300 owl nest boxes sporadically through vineyards in Napa Valley. They are documenting the impact of relying on owls to deter and remove pests rather than rodenticides.

The researchers have surveyed 75 wineries in Napa Valley, and four-fifths now use the owl nest boxes and notice a difference in rodent control. The barn owls have a four-month nesting season, during which they spend about one-third of their time hunting in the fields. A family of barn owls may eat as many as 1,000 rodents during the nesting season or around 3,400 in a single year.

So far, the graduate students have found that the barn owls in vineyards are reducing the number of gophers, but not mice. They are also evaluating the owls' impact on voles, but that is inconclusive at this time. [Read more](#)

Singapore plans changes to food safety licensing system

The Singapore Food Agency (SFA) is to change how it ranks food outlets to focus more on track records than annual audit results.

The new licensing framework is called the Safety Assurance for Food Establishments (SAFE). An estimated 23,000 food sites will come under it beginning in January 2023.

Those that have demonstrated a good record of food safety assurance and have systems to ensure better safety standards will be eligible for longer licenses and higher award tiers.

Currently, establishments are graded either 'A', 'B', 'C' or 'D' based on an annual assessment of food safety performance. A change to this system was announced in 2020.

In the SAFE program, outlets will be given bronze, silver or gold awards. Those that have a good track record, so no major food safety lapses over two, five or 10 years, and can meet other requirements, will qualify for the awards, which correspond to a 10 (gold), five (silver), or three (bronze) year license. New licensees or those with less than two years without a major issue will be given a one year license.

Examples of lapses include causing a foodborne outbreak, being convicted in court for offences against SFA's regulations, or a suspension of the license.

[Read more](#)

Food prices in Germany 'set to rise' after new coalition promises shift to sustainable food systems

29-Nov-2021 By Oliver Morrison

Food will become more expensive in Germany, it has been warned, after the new coalition government announced measures aiming to accelerate a shift to 'sustainable agriculture and food systems'. [Read more](#)

Food safety regulators must respond to the threat of climate change: FSA

16-Nov-2021 By Katy Askew

The food system is exposed to increased food safety risks from climate change – a danger regulators must be mindful of, UK Food Safety Agency Chair Professor Susan Jebb suggests. Authorities also need to help the sector mitigate the contribution it currently makes to global heating by nurturing an environment that is supportive of innovation, she believes.

[Read more](#)

Food recalls are on the rise: What can reverse this 'worrying' trend?

12-Nov-2021 By Katy Askew

The number of food recalls in Europe has increased as the food industry grappled with COVID-19, supply chain challenges and trade disruption. We hear from Tom Russell, managing director of The Food Incubator, about why focus on food safety is required.

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