

News from the World Of Spices March 2021



From the Chairman's desk

Greetings from World Spice Organisation!!!

The first quarter of this year has been a busy period for us . It commenced with the conducting of a session with the regulatory authorities like FSSAI and CIB-RC on contentious topics like Pesticide Residues and Mycotoxins which was very informative and useful for our members. WSO also took up issues like ethylene oxide and lead residues in spices which has created major problems for both organic and conventional spice exports with Spices Board and discussions are ongoing in this regard. We have entered the next phase of the NSSP and have deepened our engagements with the FPOs and farmers further.

FSSAI Session

An online session with FSSAI was conducted by AISEF and WSO on 5th February 2021. The session was addressed by eminent speakers like Ms. Rita Teatia (Chairperson, FSSAI), Mr. Sanjay Dave (Past Chairperson, Codex Alimentarius Commission), Dr. S K Malhotra (Agriculture Commissioner and Chairman CIB – RC), Dr. T P Rajendran (Chairperson, FSSAI Subcommittee on MRLs and pesticides) and Dr. P KChakrabarty (Member, ASRB , ICAR). The meeting lasted for nearly 3 hours and was attended by more than 220 participants. The meeting dealt with issues such as quality specifications of spices, methods to establish label claims and MRLs for pesticides used in spices and microbiological specifications of spices among others. More than 60 questions received before and during the session indicate the interest of stakeholders in session. Questions that could not be answered during the session owing to constraints of time were sent to the speakers and replies forwarded to the respective persons who raised the queries . As a follow up to the meeting it was decided to work out an action plan which could be presented to FSSAI and Ministry of Agriculture during the next few months .

Contamination with Lead and ETO residues

The presence of ETO residues in spice exports to EU has emerged as a major issue recently and most of the buyers demand ETO free certificates for spices exported from India. This issue was taken up in a series of meetings within the organisation and with government agencies. It was decided to form a core group within the organisation and a working group with representatives from different research institutes to look into this issue, identify naturally occurring levels of ETO, undertake sample analysis and studies and submit the report to EU. Spices Board agreed to be a partner to this and will also take up the issue with EU Commission through Ministry of Commerce so that spice exports are allowed to be shipped without hindrance

Lead contamination in spices, mainly ginger and turmeric, has remained a persistent problem for many years. It was decided to undertake a study in this regard with the help of Spices Board and other research institutes to find out the farm level lead contamination level in spices and identify lead free zones.

National Sustainable Spice Program

Under NSSP, four NGOs- EFFORT, Nilagiri foundation, Giri chaitanya and Pothana Educational Society- from Andhra Pradesh and Telangana region were directed to conduct Training of Trainers programmes for FPOs engaged with them, in Package of Practices for chilli and turmeric. The training programmes were attended by more than 200 participants. Field level interventions are expected to be strengthened in April with visits of the NSSP team to the farms in the region. Training programmes in pre-sowing practices and soil management methods will be conducted for FPOs before the next cropping season.

NSSP is also engaging in activities to strengthen the foot hold in seed spice cultivating regions of Rajasthan and Gujarat. Four NGOs- Gram Unati Foundation, Sambhav Foundation, Reliance Foundation and Racemose Platform Pvt Ltd. – have expressed interest in joining the NSSP programme. These NGOs cover around 7,000 farmers engaged with 12 FPOs cultivating seed spices like cumin and coriander. Further meetings with the NGOs and training for trainer programmes are being planned for the coming months to ensure the active participation of NSSP in the region.

We Expect \$5-billion exports by 2025: Spices Board

'An ambitious goal to reach an export value of \$5 billion by 2025 and \$10 billion by 2030 has been set by the Spices Board. The amount of exports in the period 2019-20 was \$3 billion. Through working with Indian Embassies, we are on a mission to market Indian brands abroad. The Board has also launched initiatives to provide Indian spice brands with assistance to conduct brand marketing strategies in foreign markets,' said D Sathian, Secretary, Spices Board.

The Board is looking to extend to Latin American economies, the CIS and African regions, in addition to conventional export markets.

Stressing the importance of adding value in order to increase exports, he pointed out that spice goods with added value account for 51% of the country's overall spice exports. At the international symposium on spices organized by the Indian Society for Spices, he said the government and the Spices Board are now focused more on encouraging higher-end added value and health benefits of spices.

As there are 52 scheduled spices in the country, the spice sector has enormous scope for growth. There are only a few such spices that are being marketed and exported. By concentrating on all spices and following a scientific approach to tap the different uses and advantages of spices such as flavors, fragrances and functional foods, exports could experience substantial development.

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Risk Analysis of Food Safety Hazards

Risk analysis in food safety should follow a structured approach combining risk assessment, risk management and risk communication. Risk assessment identifies and characterises the risk, Risk management involves weighing policy solutions, in consultation with interested parties and Risk communication is the exchange of information and opinions throughout the risk analysis process concerning risk, risk-related factors and risk perceptions, among assessors, managers, consumers, industry, and other interested parties. These three components are different but intertwined, and those with responsibility for each must closely interact throughout the risk analysis process in order to achieve effective solutions.

During the risk assessment process, industry plays a crucial role in providing for example occurrence and usage data of chemicals in food to support EFSA's scientific assessments and evaluations. One goal of risk management is to identify the lowest reasonably-achievable risk. This may require knowledge of the specific variables and capabilities in food processing to increase the likelihood that decisions are fit-for-purpose. The expertise that the industry provides is therefore vital for risk managers. Industry also has a responsibility in risk communication with consumers. [Read More](#)

Campylobacter and Salmonella cases stable in EU

The number of reported human cases of illness caused by Campylobacter and Salmonella bacteria across Europe appears to be stabilising over the past five years, according to the latest report on zoonotic diseases by the European Food Safety Authority (EFSA) and the European Centre for Disease Prevention and Control (ECDC).

Campylobacteriosis, which has been the most reported gastrointestinal disease in EU since 2005, affected more than 220,000 people in 2019. Salmonellosis was the second most reported zoonotic disease in the EU, affecting about 88,000 people.

Of the 66,113 samples of ready-to-eat foods – foods that do not need to be cooked prior consumption – 0.3% tested positive for Salmonella. Of the 191,181 non ready-to-eat samples, 1.5% were positive. Eighteen of the 26 Member States reporting on Salmonella control programmes in poultry populations met all the reduction targets, compared to 14 in 2018.

The next most reported diseases were Shiga toxin-producing Escherichia coli (STEC) infections, yersiniosis and listeriosis. The trend of confirmed human cases of listeriosis was stable in 2015-2019, after a long period of increase. There were 2,621 cases reported in 2019, mainly affecting people over 64 years old. It was the most severe zoonotic disease, with high rates of hospitalisation (92%) and fatality (17.6%).

The report also monitors the cause of foodborne disease outbreaks in the EU, events during which at least two people contract the same illness from the same contaminated food. [Read more](#)

Foodborne illness source attribution estimates for 2018 using multi-year outbreak surveillance data, United States

Each year in the United States an estimated 9 million people get sick, 56,000 are hospitalized, and 1,300 die of foodborne disease caused by known pathogens. These estimates help us understand the scope of this public health problem.

However, to develop effective prevention measures, we need to understand the types of foods contributing to the problem. The Interagency Food Safety Analytics Collaboration (IFSAC) is a tri-agency group created by the Centers for Disease Control and Prevention (CDC), the U.S. Food and Drug Administration (FDA), and the U.S. Department of Agriculture's Food Safety and Inspection Service (USDA-FSIS). IFSAC developed a method to estimate the percentages of foodborne illness attributed to certain sources using outbreak data from 1998 through the most recent year for four priority pathogens: Salmonella, Escherichia coli O157, Listeria monocytogenes, and Campylobacter. IFSAC derived the estimates for 2018 using the same method used for the 2012 estimates, with some modifications. [Read more](#)

Coronavirus and food safety: what the studies say

When the COVID-19 pandemic began, not much was known about SARS-CoV-2 (the coronavirus) and its survival in food, on various materials and on surfaces. Since then, several food safety agencies have assessed the risk of potentially acquiring the virus from contaminated food or food packaging. The consensus is that currently, there's no evidence it's a food safety risk.

The main route of infection is from person-to-person via contact with one another, respiratory droplets and aerosols from coughing, sneezing and talking. Therefore, it's not considered a foodborne virus.

We surveyed the scientific literature to see what it said about the safety of food and SARS-CoV-2. This included the survival of the virus, how it's transmitted and how it can be inactivated in food and on surfaces.

Overall, the evidence suggests that the virus is not a risk to food safety. But it has caused disruptions to the global food supply chain.

One research question was whether the virus is transmitted via the faecal-oral route. The question arose because a study had found viral genetic material in anal swabs and blood taken from patients. This was an important point because one of the symptoms of COVID-19 is diarrhoea. However, there are no reports to date showing faecal-oral transmission of the virus.

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Citizens irate at FDA's inability to regulate toxic metals inside food

Following a recent report released by the U.S. Congress this month suggesting that several popular baby food products contain alarming levels of harmful heavy metals, litigations were filed within days and a large number of parents expressed their anger towards baby food companies on social media.

Apparently, the severe backlash against companies manufacturing baby food has cloaked the bigger problem that heavy metal contamination, which is relatively common in food supply, is not just limited to baby food products, highlighting the federal government's inability to protect consumers from being exposed to such harmful substances.

As per the credible sources, although in certain cases the companies were aware of the elevated levels of heavy metals in their ingredients, the baby food manufacturers who are reportedly at the apex of the investigation, were not breaching any rules as the FDA has not formulated any standards regarding several heavy metals in baby food.

For the uninitiated, the U.S. FDA has mostly concentrated on foodborne pathogens such as Listeria and Salmonella historically. But in 2017, it introduced a working group dedicated towards heavy metals and other contaminants in food, supplements, and cosmetics. [Read More](#)

'Use by' or 'best before'? New tool to support food operators

EFSA has developed a tool to help food business operators decide when to apply the 'use by' or 'best before' date to their products.

The 'use by' date on food is about safety – foods can be eaten until this date but not after, even if they look and smell fine. 'Best before' refers to quality – the food will be safe to eat after this date but may not be at its best. For example, its flavour and texture might not be as good.

The European Commission estimates that up to 10% of the 88 million tonnes of food waste generated annually in the EU is linked to date marking on food products.

Kostas Koutsoumanis, chair of EFSA's Panel on Biological Hazards, said: "Clear and correct information on packaging and a better understanding and use of date marking on food by all actors can help reduce food waste in the EU, while continuing to ensure food safety. This scientific opinion represents a step forward in this direction."

The tool is structured as a decision tree with a series of questions to be answered by the food business operators to help them decide whether a 'use by' or 'best before' date is required. [Read More](#)

India food fortification: No more processed foods to be added to voluntary fortification list for now – FSSAI

Bakery products, cereals and fruit juices will remain the only processed food products to have fortification standards set by the Food Safety and Standards Authority of India (FSSAI) in the near future, after the regulator confirmed it is not considering extending the list at present. [Read more](#)

FDA Issues Uniform Compliance Date for Final Food Labeling Regulations

The U.S. Food and Drug Administration (FDA) announced today that January 1, 2024, will be the uniform compliance date for final food labeling regulations that are issued in calendar years 2021 and 2022. This action does not change existing requirements for compliance dates contained in final rules published before January 1, 2021.

The FDA periodically announces uniform compliance dates for new food labeling requirements to minimize the economic impact on the food industry of having to respond separately to each labeling change. The FDA generally encourages industry to comply with new labeling regulations as quickly as feasible. However, all food products subject to the January 1, 2024, uniform compliance date must comply with the appropriate labeling regulations when initially introduced into interstate commerce on or after January 1, 2024.

For some food labeling regulations, the FDA will set a compliance date that differs from the uniform compliance date if special circumstances justify a different compliance date. The specific compliance date is published when a final regulation is issued.

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Let's Revisit Our Food Safety And Distribution Methods

Food safety is defined as the scientific methods and processes of preparing, handling and storage of fresh produce to prevent it from contamination as it passes from farm to table. In theory, this may seem simple. However, due to the complexity of food and the natural presence of potential hazards, the assurance of food safety is not a simple matter.

Internationally, food safety has been a topic of much discussion over the last few years, from a local as well as an imported produce distribution standpoint. In fact, in recent times, our attention to safety has gone beyond just the distributing framework to a more micro-focused emphasis on the impact farming practices have on the production of fruits and vegetables.

However, the same can't be said about India. While our export produce adheres to globally mandated standards, our production for local consumption does not fully comply with these standards. During 2018-2019, FSSAI released data on food safety enforcement efforts by states and Union Territories in India. It analyzed a total of 106,459 samples across the country and found over 15.8% of food samples as sub-standard, 3.7% unsafe, and 9% mislabeled. And for that to change there needs to be a shift in outlook and caution at the very base level of the supply chain. In India, awareness amongst consumers is on the slightly lower end. Our local population needs to equip themselves with the necessary knowledge to make more informed buying decisions. [Read more](#)

FAO's Investment Centre doubles down on efforts to create more robust and sustainable agri-food systems

The FAO Investment Centre creates investment solutions in sustainable food and agriculture. The Centre offers a range of investment support services helping countries to create long-term investment policies and plans, to design and implement investment projects with financing partners and to generate knowledge and build capacities related to investment. A distinctive characteristic of the Centre is that it works almost exclusively through partnerships with financial institutions and member country governments.

Better investment in food and agriculture leads to more efficient and equitable agri-food systems as well as greater resilience in the face of climate change and other shocks such as COVID-19.

What's new is that FAO members have recently agreed to inject significantly more resources into the Centre - enabling it to expand, provide more in-depth investment support to countries and strengthen its collaboration with international and national financial institutions and other development partners.

In 2020, working with partner international financial institutions and with our member country governments, we helped mobilize \$6.6 billion of public investment projects to create stronger and more sustainable agri-food systems. [Read More](#)

X-rays for food safety: Two common misconceptions about X-ray inspections

X-ray inspection of food products is becoming increasingly popular worldwide. This is likely due to two factors. First and foremost are the high costs associated with a food recall caused by foreign body contamination. Second, studies performed by the FDA and other organizations have concluded scanning food with X-ray scanners does not pose a health risk – putting to rest any lingering concerns on that front.

During this uptick, recognition is building that this sophisticated approach to inspection can detect more than just metal. This distinction is important, because food suppliers and end users typically identify glass, ceramics and even dense plastics as frequent foreign substance culprits.

X-ray scanners also can perform quality control functions above and beyond foreign substance detection. For example, in yogurt cups or ketchup bottles, X-ray systems can be utilized to verify accurate fill levels. In other food segments, pizzas can be checked to assure adequate roundness, pralines can be counted in the equipment tray prior to packaging and, perhaps most impressively, cheese can be classified according to ripeness.

Despite its wide array of potential benefits, however, misconceptions persist about X-ray inspection and its applications. Let's dispel two of the most common myths. [Read More](#)

New study predicts food irradiation market growth over coming years

An intelligence report published by Advance Market Analytics details insights about the potential future of food irradiation around the world, pointing to food safety among the benefits.

United States companies will contribute to the maximum growth of the global food irradiation market throughout the predicted period of 2021-2026, according to the report "Food Irradiation Market Outlook to 2026."

Food irradiation — the application of ionizing radiation to food — is an ideal food safety practice because it does not make foods radioactive, compromise nutritional quality, or noticeably change the taste, texture, or appearance of them according to food safety experts in the United States and around the world. The process is mandatory for some foods imported to the United States. Some U.S. companies irradiate their raw ground beef.

Food irradiation improves the safety and extends the shelf life of foods by reducing or eliminating microorganisms and insects. Like pasteurizing milk, irradiation can make food safer for the consumer according to the study. The Food and Drug Administration is responsible for regulating the sources of radiation that are used to irradiate food.

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Biodiversity in Europe: EU aims to protect 30% of land and sea

With a UN biodiversity summit approaching in spring, 2021 has been hailed as a super year for biodiversity. As part of its contribution, the European Commission is preparing legislation to introduce legal protection for 30% of land and sea in Europe.

A UN summit in China, scheduled for May this year, will discuss global action on biodiversity, with the European Union promoting the idea of a Paris Agreement for biodiversity. The summit comes at a critical time for the world's nature. Globally, scientists have warned that one million out of eight million species are threatened with extinction.

In Europe, the latest State of Nature report, published in October 2020, warned that biodiversity is in critical decline. Produced by the European Environment Agency, the report showed that over 60% of species have a "poor" or "bad" status, with the most endangered being fish and amphibians.

The European Commission aims to tackle this with its biodiversity strategy, which is due to unlock €20 billion of funding per year for nature protection.

It also aims to legally protect 30% of land and sea by 2030. However, only 14 out of the 27 EU countries signed up to this target at the One Planet Summit in January. Biodiversity protection in the EU is currently dealt with under the Natura 2000 conservation programme, which covers around 18% of EU land and 10% of sea. [Read more](#)

Plant-Based Diet Key to Preserving Biodiversity, New Report Finds

A new report says the global food system is the primary driver of biodiversity loss. It calls for a global shift toward plant-based eating to stop the damage.

The report, issued by the Chatham House think tank in London, notes that biodiversity loss is accelerating at an alarming pace. "The global rate of species extinction today is orders of magnitude higher than the average rate over the past 10 million years," the report says.

It outlines three broad-based solutions to the problem:

1. **A Shift to Plant-Based Eating:** Diets around the world need to put plants at the center. This would lessen the impact of animal farming, which is the largest contributor to environmental damage. The Guardian notes that over 80% of global farmland is used to raise animals, yet animals provide only 18% of the calories people eat.
2. **The Restoration of Native Ecosystems:** "More land needs to be protected and set aside for nature," the report says. We need to avoid converting land for agriculture, and we need to restore existing farmlands.
3. **Adopting Less Intensive Farming Practices:** Intensive farming methods produce large crop yields; organic farming yields about 75% of the crops harvested on farms using more destructive methods.

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Farmers could switch to more climate resilient crops

The three laws at the centre of the current storm are focused primarily on prices of agricultural produce, marketing channels, and the role of middlemen. Unfortunately, environmental aspects – cropping patterns, irrigation and other agricultural practices – that are fundamental to the sustainability of agricultural systems are not being addressed.

Agriculture is highly susceptible to fluctuations in temperature, excessive and untimely rains, floods, droughts, pests, diseases and so on. In recent years, such extreme weather events have been aggravated by climate change.

All this is exacerbating water security. Much of India's agriculture continues to be fed by rainfall rather than canals, wells and tube wells, which means a short growing season of only 2.5 to 6 months. Even the well-irrigated regions in the north west and south east where the 1960s green revolution massively increased yields, are now experiencing groundwater depletion. For example, Punjab's vast fields of wheat and rice are rapidly developing desert-like conditions.

On top of this, agro-biodiversity is in decline as only a handful of strains of a few crops have come to dominate. And the country's soil is becoming less and less healthy. India now loses 15 tonnes of soil per hectare each year, eroded away by wind or water.

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Needed, A comprehensive farm policy

For sustained and sustainable growth in agri-sector, a bits-and-pieces approach will not work

In the heat generated by farmers' protests over the agri-market reform laws, the internal contradictions in the country's farm sector policies seem to have faded into the background.

Farmer incomes cannot be doubled by merely hiking the minimum support price (MSP) for specified crops season after season as appears to be the case now. MSP hikes unrelated to market conditions will create other challenges. Raising yields is one sure way to improve farmers' incomes; our yields (of rice, pulses, oilseeds, etc.) are pretty low by global standards. Where is the push for yield increase?

On its part, the Commission for Agricultural Costs and Prices (CACP) keeps recommending an annual hike in the MSP for specified crops currently numbering 23. To arrive at the MSP recommendation, the CACP conducts a detailed exercise including examination of input costs and other related expenses. Consultations with stakeholders are also carried out. However, in the final analysis, the MSP for crops announced by the government season after season seems to be divorced from ground realities. The MSP has a tenuous relation with global and domestic market conditions. [Read more](#)

Popularise Good Agricultural Practices for quality production of spices: Experts

The international symposium on spices has recommended the development and introduction of good agricultural practices and its popularisation among farmers to enhance the availability of high quality spices for domestic and industrial consumption.

The four-day symposium, which concluded at ICAR- Indian Institute of Spices Research, also recommended the introduction of good manufacturing practices for ensuring clean and hygienic spices. GAP can also improve spices exports, the virtual meeting observed.

The Ministry of Agriculture and Commerce should converge for the betterment of the spices sector, said experts and suggested studies on carbon footprint for spices and proper trade information management pertaining to spices sector. They stressed the importance of collaboration between institutes and countries for developing technology sharing and policy congruence to solve trade related issues in spices.

Based on discussion, the meeting recommended evidence and analytical data based nutraceuticals development from spices. It emphasised the need for a database on quality parameters contaminant and adulterant raw materials to maintain efficacy and safety of nutraceutical preparations.

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Efforts To Produce More Of World's 'Costliest Spice' In India

Among produce by farmers in Jammu and Kashmir, Saffron is termed the “legendary crop”, a gram of which sells for about Rs.350 in the retail market.

Considered the world's costliest spice, saffron is used for culinary seasoning and in natural medicine. It enhances aroma and flavour of various cuisines. Saffron is popular as a flavouring and seasoning agent in Mughlai foods.

In Kashmir, it is mainly grown on well-drained 'karewa' soil. It is cultivated at an elevation of about 2,000 metres above mean sea level. Sunlight and temperature have profound influence on its flowering.

Iran, India, Spain, and Greece together contribute over 85% of world's saffron production. The total world production of saffron is around 300 tons per year.

Though, India occupies the second largest area in terms of farming, the country produces approximately 7% of the total production.

Spain, with 600 hectares of land is the third largest producer. Iran, Spain, and Greece, with intensive production technologies, have achieved higher production and productivity than India's. And now, saffron 'could be pure gold' for new era farmers in South Africa, according to reports. Meanwhile in India, studies are going on to provide a boost to production owing to the importance of the crop for its national market demand and export potential. [Read more](#)

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