

News from the World Of Spices

September 2020 Quarterly



From the Chairman's desk....

Greetings from World Spice Organisation!!!

Major activities of WSO in the past three months are detailed here.

Response of the spice industry on the ban of hazardous insecticides

The Union ministry of agriculture had released a draft notification proposing to ban twenty seven hazardous chemicals in India. WSO and AISEF welcomed this move by the government. In this regard, a detailed and comprehensive response of the spice industry covering the issues faced by the industry, on-going and possible interventions with the support of government agencies and suggestions for further action was submitted to the Ministry of Agriculture through the Spices Board.

National Sustainable Spice Programme (NSSP)

Activities under the National Sustainable Spice Program that had come to a halt owing to the constraints posed by the pandemic situation have now begun by harnessing the possibilities of virtual platforms. Around 30,000 farmers from 65 FPOs, 60 major spice exporting companies and around 10 retailers have shown their interest to take part in the programme so far. Virtual meetings were held with various NGOs and FPOs based in Andhra Pradesh and Telangana to discuss the problems faced by them in cultivating spices and develop strategies for NSSP intervention in these.

The field level activities like trainings are expected to begin before the start of the cropping season once the restrictions imposed because of Covid -19 are eased. We are in the process of selecting efficient and well run FPOs in order to work with them to achieve the objectives of Food Safety and Sustainability in Spices which as you all know are also the objectives of WSO and NSSP.

We now intend conducting the same exercise in Gujarat for selecting FPOs for cultivation of Spice seeds crops. We will be engaging local experts and consultants to support these activities by making the farmers aware of the proper package of safe and sustainable practices that will aid in growing the right quality of spices that will meet the quality norms of buyers both domestic and overseas.

Virtual meetings

As you all know and must have experienced, virtual meetings have become the latest rage in communications as an alternate platform replacing physical meetings and conferences which cannot be held due to the current situation. The WSO Secretariat has been attending some of these seminars and we will try and send summaries or links for some of the relevant ones for the benefit of our members.

We had attended a training session on IndGAP (India Good Agriculture Practices) conducted by Quality Council of India. IndGAP is a scheme developed by QCI in line with the Global GAP standards, but with modifications to suit the Indian scenario. It is now being benchmarked with the Global GAP to ensure the international acceptance of the scheme. Certification for horticulture crops such as fruits, vegetables, tea, coffee and spices are included in the programme. The detailed information on the scheme shall be circulated shortly to all members.

Export of spices products surge to over Rs 21 000 crore

Maintaining the high standards of safety supplemented with exceptional taste and aroma that is appreciated across the globe, the exports of Indian spices and spice products surged to Rs 21,515.4 crore (USD 3033.44 million) and a volume of 11,83,000 tonnes in 2019-20.

The performance is a reflection of sustaining their robust demand in international markets in the face of stiff competition, Spices Board said in a statement here on Wednesday.

"The spices export during 2019-20 exceeded the fixed target both in terms of volume, rupee value and dollar terms of value against the export target of 10,75,000 MT valued at Rs 19666.90 crore (USD 2850.28) for the year 2019- 20, thereby registering an increase of eight per cent in volume, ten per cent in rupee terms and eight per cent in dollar terms," it said.

During 2019-20, 225 spice items were exported, against 219 items in 2018-19. Chilli, Mint products, cumin, Spice oils &

Oleoresins, and Turmeric continued to be the major contributors in the spices basket contributing 80 per cent of the total earnings.

Though the Indian spices are exported to 185 countries, China (24 per cent), USA (16 per cent), Bangladesh (six per cent) , Thailand (five per cent), UAE (six per cent), Sri Lanka, Malaysia, UK, Indonesia, and Germany are the major takers contributing over 70 per cent export earnings. [Read More](#)

New Era of Smarter Food Safety

Welcome to the New Era of Smarter Food Safety. The world around us is changing rapidly; many believe we will see more changes in the food system over the next 10 years than we have in decades. Foods are being reformulated; there are new foods, new production methods, and new delivery methods; and the system is becoming increasingly digitized.

To keep pace with this evolution, FDA is taking a new approach to food safety, leveraging technology and other tools to create a safer and more digital, traceable food system.

Smarter food safety is about more than just technology. It's also about simpler, more effective, and modern approaches and processes. It's about leadership, creativity, and culture.

Our ultimate goal is to bend the curve of foodborne illness in this country by reducing the number of illnesses.

This [blueprint outlines the approach](#) FDA will take over the next decade to usher in the New Era of Smarter Food Safety.

This document represents achievable goals to enhance traceability, improve predictive analytics, respond more rapidly to outbreaks, address new business models, reduce contamination of food, and foster the development of stronger food safety cultures. [Read more](#)

The dangers of Ochratoxin A

Ochratoxin A (OTA) is a mycotoxin produced by various fungi of the genus *Aspergillus* and *Penicillium* (eg *A. ochraceus*, *A. carbonarius* and *P. verrucosum*). In UK cereal production, *Penicillium verrucosum* is believed to be the sole species responsible for OTA production.¹

These fungi are very rarely found on cereals in the field, but the fungus is readily discovered in cereal grain stores and can accumulate on old grains and dust that lingers in stores and machinery from previous harvests.

Therefore, it has been determined that OTA mainly forms after harvest during drying, storage, transport or processing, and can end up as a contaminant in a variety of plant derived foods as a result. Since temperature and humidity are considered important parameters for the growth of fungi, climate change is anticipated to impact on the presence of mycotoxins.

Steinkellner explained that chronic exposure to OTA specifically can cause kidney toxicity in a variety of animal species as well as kidney tumours in rodents. Due to its slow elimination from the body, OTA also has the potential to bioaccumulate in humans. "Contamination of food of animal origin with OTA primarily occurs during storage and processing, which may result in substantial amounts in, for example, preserved meats and ripened cheese. [Read More](#)

U.S. Needs Better Food Safety Interventions, Starting on Farms

The United States made no progress in 2019 toward reducing illnesses from common foodborne bacteria and parasites, the Centers for Disease Control and Prevention [reported](#) on May 1. Infection rates for five of the eight pathogens tracked for the report increased significantly compared with their averages during 2016-18, while three others remained flat. [Improvements in diagnostic technology](#) may have contributed to the rise in some incidence rates, the agency said, but that is unlikely to explain all of the growth.

CDC's findings point to the need for better food safety strategies to protect consumers from these preventable diseases. The U.S. is far from achieving [foodborne illness reduction targets](#) set a decade ago as part of the nation's Healthy People 2020 initiative, an effort to improve Americans' health through coordinated actions across the federal government. Many foodborne pathogens continue to make people sick at rates equal to or higher than they did 10 years ago.

Federal regulators and food companies should prioritize measures to curb contamination of meat and poultry products and fresh fruits and vegetables, especially given the added strain that the COVID-19 pandemic has placed on the state and local health departments that investigate foodborne outbreaks. [Read more](#)

Role of certification in assuring food safety

Food safety is used as a scientific discipline describing handling, preparation, and storage of food in ways that prevent food-borne illness. From farm to factory to fork, food products may encounter any number of health hazards during their journey through the supply chain. Safe food handling practices and procedures are thus implemented at every stage of the food production life cycle in order to curb these risks and prevent harm to consumers.

Food safety certification

Food safety certification is a third-party verification that products, processes or systems in the food supply chain meet accepted food safety standards. Food safety certification conveys to consumers and the marketplace, as well as to employees and key stakeholders, that a food sector business has successfully met the requirements of a national or internationally recognised best practice approach.

The overall benefits of food safety certification

- Evidence of a commitment to food safety
- Greater control and knowledge about the production process and products
- Differentiation and commercial positioning against the competitors, revaluation of the product and introduction in new markets
- Availability of a tool to manage food safety
- Minimisation of the costs of unsafe food in the food chain
- Compatibility with other ISO Standards
- Optimise the traceability system within the organisation and through the food chain

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Detecting Foreign Material Will Protect Your Customers and Brand

During the production process, physical hazards can contaminate food products, making them unfit for human consumption. According to the USDA's Food Safety and Inspection Service (FSIS), the leading cause of food recalls is foreign material contamination. This includes 20 of the top 50, and three of the top five, largest [food recalls issued in 2019](#).

As methods for detecting foreign materials in food have improved over time, you might think that associated recalls should be declining. To the contrary, USDA FSIS and FDA recalls due to foreign material seem to be increasing. During the entire calendar year of 2018, [28 of the 382 food recalls](#) (7.3%) in the USDA's recall case archive were for foreign material contamination. [Through 2019](#), this figure increased to approximately 50 of the 337 food recalls (14.8%). Each of these recalls may have had a significant negative impact on those brands and their customers, which makes foreign material detection a crucial component of any food safety system.

The FDA notes, "[hard or sharp foreign materials found in food](#) may cause traumatic injury, including laceration and perforation of tissues of the mouth, tongue, throat, stomach and intestine, as well as damage to the teeth and gums". Metal, plastic and glass are by far the most common types of foreign materials. [Read More](#)

Current FSSR guidelines need to be evaluated in line with global trends

By strengthening the Food Safety and Standards Act in 2006, India has taken a significant step towards creating a healthy food culture in the country. Ensuring the availability of safe and nutritious food for human consumption is the primary purpose of this Act, as set out in its preamble. Thus, the Act streamlines all food-related regulations and prompts a change from multi-level, multi-departmental restrictions on food safety and nutrition to an integrated policy line with an overarching policy structure on food safety and nutrition.

In 2008, the Food Safety and Standards Authority of India (FSSAI) was set up under the aegis of the Ministry of Health and Family Welfare to implement the provisions of the new legislation. Under the Act, the Food Authority serves as a Central reference point for all issues relating to food safety and quality in the country. The Food Authority guides and governs all persons engaged in the manufacture, import, transport, storage, distribution and retailing of food on food safety and nutrition issues, with primary responsibility for regulation primarily on the part of state food commissioners.

Since the process of licensing and registration of food business began in 2011, the number of food businesses that have been part of the FSSAI has gradually grown over the years.

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Top Three Visibility Challenges in Today's Food Supply Chain

To say that COVID-19 has been disruptive would be putting it mildly. The pandemic's sudden and seismic impact has brought major upheaval across industries—the food industry and its supply chain included.

There was the initial panic buying that drove upticks in consumer demand for which few manufacturers and grocers were prepared, resulting in widespread product shortages. With restaurants closed, distributors and suppliers were left with considerable excess inventory—most of which ended up as waste and losses. Inside production sites and plants, many had to try and maintain their output with a reduced workforce, even as demand continued to climb. Meanwhile, some plants unfortunately have had to shut down operations on account of employees testing positive for COVID-19.

In the time since the outbreak, the food supply chain has stabilized to an extent. Store shelves are continuously being replenished with products. Restaurants have started reopening with new health and safety measures. Yet even as the industry takes gradual steps toward recovery, the underlying problem that led to the magnitude of COVID-19's impact persists: Lack of visibility. There was lack of visibility into supply and demand and what was happening upstream and downstream across the supply chain, which prevented timely, proactive action to optimize operations in face of disruption. [Read More](#)

In South Korea, centuries of farming point to the future for sustainable agriculture

- *Agriculture in South Korea is a blend of centuries-old traditions and contemporary techniques adapted to a variety of environmental conditions, making it a model to adopt in the effort to future-proof food production against climate change.*
- *With its emphasis on making the most of local conditions, prioritizing native crops, maximizing the use of organic inputs while minimizing waste, South Korea offers templates for nature-based solutions.*
- *State and local support of farmer's livelihoods, revitalizing rural areas and incentivizing youth to enter farming are also ongoing efforts to help guarantee the generational sustainability of agriculture.*

In its August 2019 report "[Climate Change and Land](#)," the inter-governmental Panel on Climate Change highlighted the importance and urgency of changing our use of the land from practices that have led to greenhouse gas emissions, deforestation, soil erosion and water scarcity, into mitigation and adaptation measures.

"Managing land resources sustainably can help address climate change," Hans-Otto Pörtner, co-chair of IPCC Working Group II, said in a [press release](#) on the report.

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How to Get Organic Food Certification and What are the Norms?

Organic Food:

Organic foods are results of agrarian works concentrating on bio-assorted variety, soil well being, chemical free sources etc. with an ecologically and socially dependable methodology that have been created as per organic creation guidelines.

Regulation of Organic Food:

Food Safety and Standards Authority of India (FSSAI) regulates the overall process with regard to Organic food. FSSAI looks after the manufacturing, circulation, marketing etc. according to the regulation laid out under Section 22 of the Food Safety Standards Act, 2006.

Systems of Certification:

Currently, 2 systems of certification are present under the Food Safety and Standards Regulations, 2017 (Organic Food). One is the Participatory Guarantee System (PGS - India) and the other one is the National Programme for Organic Production (NPOP). PGS - India is established under Ministry of Agriculture and Farmer's Welfare and NPOP is established under Ministry of Commerce and Industry. Interested parties can enter by using any one of the systems.

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Smaller fields, more biodiversity, research by Carleton professor shows

New research has found that smaller farm fields actually boost biodiversity and help farmers, too.

Lenore Fahrig, a biology professor at Carleton University who focuses on landscape ecology, found that dividing large fields into smaller ones, either by varying crop type or by having a narrow, natural divide – such as a hedge, a fence, a ditch or a patch of grass – helps provide habitat for native wildlife.

Introducing these small strips of natural habitat also helps bees and other pollinators, which can help improve the productivity of farms.

But farms in Eastern Ontario are moving in the opposite direction and making fields bigger, according to Fahrig. “They’ve been taking neighbouring small fields out and making them into bigger fields,” she said.

Fahrig said the challenge in convincing farmers to split their fields into smaller sections is because of the perception that it would cut into narrow profit margins. But the divide between fields can be thin enough that it would have little impact on total field size and would still benefit biodiversity.

“I think a lot of farmers actually really love nature,” said Fahrig. “If they were convinced that this really was going to increase the diversity of birds and bats and whatever else in their region, and if it wasn’t going to decrease their profits, then they’d be interested.” [Read More](#)

Biodiversity: our solutions are in nature

Biodiversity, or biological diversity, is the multitude of living things that make up life on Earth. It encompasses the 8 million or so species on the planet—from plants and animals to fungi and bacteria—and the ecosystems that house them such as oceans, forests, mountain environments and coral reefs.

But, [nature is in crisis](#). We are losing species at a rate 1,000 times greater than at any other time in recorded human history and one million species face extinction.

Every year, the United Nations marks 22 May as the International Day for Biological Diversity, to increase understanding and awareness of biodiversity issues. This year, due to the COVID-19 pandemic, the occasion will be commemorated through its first ever online-only campaign. The theme for the event is ‘*Our solutions are in nature*’. “Despite all our technological advances we are completely dependent on healthy and vibrant ecosystems for our water, food, medicines, clothes, fuel, shelter and energy,” says Mrema.

Biodiversity ensures that we have fertile soil, as well as a variety of foods, including fruits and vegetables to eat. It is the foundation of most of our industries and livelihoods and helps regulate climate through carbon storage and regulating rainfall. It also filters our air and water and mitigates the impact of natural disasters such as landslides and coastal storms. [Read More](#)

Scientists urge UN to tackle biodiversity loss and stop new pandemics

The world needs to tackle biodiversity loss and urgently reduce deforestation rates if it wants to avoid new and more deadly pandemics. That's the message scientists will tell country delegates at an upcoming UN summit on biodiversity, scheduled for next month in New York.

The UN summit will seek to provide political direction and momentum to the development of the post-2020 global biodiversity framework, as the current one ends this year. The new framework was supposed to be agreed upon this year, but the whole process was delayed due to the pandemic.

"There is now a whole raft of activities such as illegal logging associated with international trades in bushmeat and exotic pets that have created this crisis," Stuart Pimm, professor of conservation at Duke University, told [The Guardian](#). "Covid-19 has cost the world trillions of dollars and already killed almost a million people."

There's now clear evidence of a strong link between the emergence of pandemics like COVID-19 and environmental destruction. Deforestation, the expansion of the agricultural sector, and the exploitation of wild species as sources of food are creating avenues for diseases to spillover from wildlife to people, experts agree. [Read More](#)

How our food choices cut into forests and put us closer to viruses

As the global population has doubled to 7.8 billion in about 50 years, industrial agriculture has increased the output from fields and farms to feed humanity. One of the negative outcomes of this transformation has been the extreme [simplification of ecological systems](#), with complex multi-functional landscapes converted to vast swaths of monocultures.

From cattle farming to oil palm plantations, industrial agriculture remains the greatest [driver of deforestation](#), particularly in the tropics. And as agricultural activities expand and [intensify](#), ecosystems lose [plants, wildlife and other biodiversity](#).

[The permanent transformation](#) of forested landscapes for commodity crops currently drives more than a quarter of all global deforestation. This includes soy, palm oil, beef cattle, coffee, cocoa, sugar and other key ingredients of our increasingly simplified and [highly processed](#) diets.

The erosion of the forest frontier has also increased our exposure to [infectious diseases](#), such as [Ebola](#), [malaria](#) and other [zoonotic diseases](#). Spillover [incidents would be far less prevalent](#) without human encroachment into the forest.

We need to examine our [global food system](#): Is it doing its job, or is it contributing to forest destruction and [biodiversity loss](#) — and putting human life at risk?

[Read More](#)

Biodiversity and intensive farming can live side-by-side

Promoting biodiversity on farm does not have to be difficult and it certainly does not mean that you cannot farm productively.

Simply fencing off a watercourse can help to improve habitats and for those of you who want to go a little bit further afield margins are the next step.

Catherine Keena of Teagasc is confident that biodiversity and intensive agriculture can live side-by-side. She was talking on Teagasc's The Dairy Edge Podcast recently.

Watercourses are a massive source of biodiversity on farms.

"Water adds another huge layer of species – plants, insects and invertebrates," Catherine explained.

She added that watercourses get a lot of attention because of the focus on water quality, but noted that they are equally important from a biodiversity point of view.

There are a few things that can be done to make the most of the biodiversity in watercourses. "Ideally the best practice is not to drink from the watercourses where possible; to fence the watercourse bank so that the banks of the watercourse can have natural vegetation on them; and ideally have a 1.5m margin alongside every watercourse." This margin should not receive fertiliser, sprays or be cultivated. [Read More](#)

Vertical farming for 'sustainable national food security' and 'green food recovery'

Vertegrow and Intelligent Growth Solutions (IGS) are investing in the development of a UK vertical farm. According to Vertegrow director Graeme Warren, investment in ag tech in general – and vertical farming in particular – is vital to delivering food security and a 'green food recovery' post-COVID. [Read More](#)

'We are in the middle of a food safety technological revolution': Tetra Pak talks the future of food safety

Technological advances are transforming the food sector – and nowhere is this more evident than in the field of food safety. FoodNavigator caught up with Alex Bromage, Food Safety and Quality Director at Tetra Pak, to find out what innovations he is getting excited about. [Read More](#)