

# News from the World Of Spices

June 2020



## *Greetings from World Spice Organisation!!!*

In this truly unprecedented situation of fear and economic slowdown created by COVID 19, we sincerely hope that all our stakeholders are staying safe and that we will emerge unscathed from this.

Owing to the current situation, WSO had postponed the launch of the NSSP program for the North Eastern states which was scheduled to be held in February 2020. In view of the continuing restrictions on travel and conducting meetings, we organized a webinar "Spice Business Opportunities in North-East States" on Monday, 15<sup>th</sup> June 2020. The program was attended by 246 participants from different sectors of trade and industry and the presence of eminent speakers made the event much informative to the audience.

### **Welcome address by Mr. Ramkumar Menon (Chairman, WSO)**

Mr. Ramkumar Menon briefed on the NSSP Project which covers five major spices cultivated in India, and aims at improving food safety and sustainability and also in increasing market linkage opportunities of the farmers. He also stressed on the need for infrastructure and logistics development in the North East to ensure that the potential of the area is fully utilized especially since that region is second to none in many aspects like environment, soil health and organic farming practices.

### **Keynote Address by Mr. D Sathyan IFS (Secretary, Spices Board of India)**

Mr. D Sathyan discussed about the impact of Covid 19 on the spice industry thereby leading to more challenges and opportunities. He further elaborated on the prospects of increasing the production and introducing proper branding of the organic spices if the major issues like the lack of quality planting material and processing facilities are dealt with. He also requested the spice farmers to aggregate into spice producer societies, farmer producer organizations, spice farmer producer companies or export clusters so that government can support them more effectively.

### **Introducing NSSP- Mr. Philip Kuruvilla (Coordinator, NSSP)**

Mr. Philip Kuruvilla gave insights on the importance of sustainable development in social, economic and environmental circles. He explained how NSSP will affect each of these areas and also act upon some of the Sustainable development goals laid down by the United Nations. Mr. Kuruvilla described the implementation of NSSP Action Plan that involves teaming up all stakeholders, capacity building, coordinating with global standards and training programmes to achieve the vision to make 25% of major spices to be sustainable by 2025. He urged all stakeholders to join the project through the website <https://www.nssp-india.org/>.

### **Value Chain Development and Small holder Income by Mr. Pramit Chanda (Global Director, IDH India)**

Mr. Pramit Chanda spoke on the importance of creating enabling environment so that the high value product reaches the domestic and international markets in the most efficient and profitable manner. He also stressed on the importance of sharing information on the market demand to the farmers prior to the season to avoid over production apart from ensuring the availability of quality inputs and required finance. He gave information on the small holder farmer finance facility called the Farmfit programme provided by IDH which helps farmers in obtaining credit and finance on easy terms.

### **Market potential for sustainable spices: Linking Biodiversity by Dr. Poonam Pandey (Advisor- GIZ India)**

Dr. Poonam Pandey explained on the various biodiversity services and the major risks to biodiversity. She also spoke about the private business action for biodiversity projects taken up by GIZ in Brazil, Mexico and India to improve awareness regarding biodiversity-friendly production and commercialization in spice sector.

### **Potential for Sustainable and Food Safe Spice Cultivation in the North-East Region Dr Bidyut Deka (Director, ICAR-ATARI, Barapani)**

Dr. Bidyut Deka shed light on the plight of farmers who do not get substantial prices despite producing quality spices. He suggested improving the cluster production system and spice processing methods through novel strategies and introducing a mechanism by which farmers are ensured access to finance. He also offered assistance in conducting training programmes for farmers in connection with spice development programs aimed at providing support to the farmers.

### **Opportunities and Challenges in Processing Spices in North-East Region by Shri Anurag Agarwal (Parvata Foods, Siliguri)**

Mr. Anurag Agarwal & Ms. Siddhi Kamani elaborated on the Business Model followed by Parvata Foods in the NE region. Parvata Foods works directly with more than 1000 farmers in North-East Region and provides training to farmers in better and modern agriculture practices apart from hosting a large spice processing facility and also providing logistic access in the interior hilly terrains.

### **Role & Activities of Spices Board in the North East by Dharmendra Das (Deputy Director, Spices Board Guwahati)**

Shri. Dharmendra Das spoke about the activities of the Spices Board India, the major spices grown in India with special reference to North East and elaborated on their production, export and import statistics. He also informed on several programs implemented by the Board in North Eastern region for large cardamom.

### **Question and answer session:**

48 questions on various topics were received from the participants. Many questions were answered directly by the panelists and the balance that could not be taken up for want of time are being answered by mail.

Meeting closed with a vote of thanks by Mr. Dharmendra Das at 1.30 pm.

## **The Global Food Safety Initiative Releases All-new GFSI Benchmarking Requirements For Food Safety**

GFSI has long set the "global standard" for those in the industry, yet the newest edition of the GFSI Benchmarking Requirements is more than an update — it's a complete rethink, representing the beginning of a new generation of recognition. To highlight the significance of the changes made in this latest version, GFSI has broken with its traditional naming nomenclature and will align the name of each updated set of standards with year of release. Rather than 'Version 8', the new version of the Benchmarking Requirements will be known as 'Version 2020'.

Version 2020 will help achieve two primary objectives, transparency and objectivity, in service of GFSI's mission of ensuring safe food for consumers everywhere. New and strengthened elements in Version 2020 include two new scopes focused on hygienic design, elements of food safety culture and reinforced impartiality of the auditing process and the monitoring of certification bodies.

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## **Regenerative agriculture—An oversold sustainability solution to climate change?**

Over the past six months, major food companies, like General Mills, Danone North America, Kellogg, and others, have launched efforts to cut their carbon footprint, in part by expanding the use of regenerative agriculture (also called carbon farming) practices. Regenerative agriculture refers to an array of management practices — such as cover cropping, compost amendment, or grazing management — that sequester carbon in agricultural soils.

While these practices have positive soil health benefits, efforts to increase agricultural soil carbon sequestration likely don't have nearly the level of expected climate benefits. Such poor carbon accounting means that corporations, governments, or individuals seeking to offset their greenhouse gas (GHG) emissions through regenerative agriculture are fooling themselves and the general public.

Emerging frontier technologies may also make soil carbon sequestration even more attractive in the future. Researchers at the Salk Institute in San Diego are working on genetically engineering the six most common row crops and the three most common cover crops to increase the level of carbon transferred from root systems to soil. [Read More](#)

## Intelligent Imaging and the Future of Food Safety

Traditional approaches to food safety no longer make the grade. It seems that stories of contaminated produce or foodborne illnesses dominate the headlines increasingly often. Some of the current safeguards set in place to protect consumers and ensure that companies are providing the freshest, safest food possible continue to fail across the world. Poorly regulated supply chains and food quality assurance breakdowns often sicken customers and result in recalls or lawsuits that cost money and damage reputations. The question is: What can be done to prevent these types of problems from occurring?

While outdated machinery and human vigilance continue to be the go-to solutions for these problems, cutting-edge intelligent imaging technology promises to eliminate the issues caused by old-fashioned processes that jeopardize consumer safety. This next generation of imaging will increase safety and quality by quickly and accurately detecting problems with food throughout the supply chain.

In broad terms, intelligent imaging is hyperspectral imaging that uses cutting-edge hardware and software to help users establish better quality assurance markers. The hardware captures the image, and the software processes it to provide actionable data for users by combining the power of conventional spectroscopy with digital imaging.

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## Redefining agricultural production

Agricultural production used to be basically divided into two camps; conventional and organic. The two production styles have clear delineations and are pretty much exclusive of each other. Today the lines between these systems are being blurred as farmers are beginning to embrace sustainable and regenerative agricultural practices.

Let's begin by defining "organic" production. In Canada, the organic system is governed by the Government of Canada's organic standards and regulations and is regulated by the Canadian Food Inspection Agency. It defines organic production as: "A holistic system designed to optimize the productivity and fitness of diverse communities within the agro-ecosystem, including soil organisms, plants, livestock and people. The principle goal of organic production is to develop operations that are sustainable and harmonious with the environment."

**Regenerative Agriculture:** Regeneration Canada's definition of the term is: "land management practices that regenerate soil health, in order to mitigate climate change, restore biodiversity, improve water cycles and support a more productive and just food system."

Sustainable agriculture is both a philosophy and a system of farming. It has its roots in a set of values that reflects an awareness of both ecological and social realities. It involves design and management procedures that work with natural processes to conserve all resources and minimize waste and environmental damage, while maintaining or improving farm profitability. Working with natural soil processes is of particular importance.

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## Natural pesticides — The next breakthrough in the global food industry?

Chemical pesticides have been an accepted part of the global food industry for decades. Since being introduced in the 1970s by Monsanto, products containing glyphosate have helped increase and secure the global food supply through widespread use. The chemical has become so indispensable to the industry that removing it from the agriculture system could potentially under nourish large populations. However, recent news such as reports from The National Center for Biotechnology Information that [links](#) traces of glyphosate to cancer and generate concern over how the chemical accumulates in the air, soil and water supply, has increased pressure among the government to find alternatives to the chemical, and potentially ban its use altogether.

This increased pressure may result in glyphosate's removal from multiple markets without an alternative ready to replace its weed-killing properties. France and Germany have plans in motion to ban all glyphosate use by 2021 and 2023, and others will likely soon follow suit. Given the fact that many of these brands are in the process of developing natural alternatives but remain in the testing phase, mass bans have the potential to negatively impact the agricultural community and crop supply sooner than we anticipated.

As bans continue to go into effect, a natural option is needed to protect the global food supply. New companies are rising up to fill this void and some have begun to develop formulas that have shown tremendous efficacy and control of soil borne diseases and nematodes, while others have even managed to control plant deterioration. Such breakthroughs are a step towards farmers and homeowners using natural, safe and efficient products. [Read More](#)

## The Effects of COVID-19 Will Ripple through Food Systems

As winter gives way to spring, farmers across the U.S. are ramping up for the growing season—hiring workers, purchasing materials and taking orders. But measures to rein in the COVID-19 pandemic may derail some of those efforts, experts say.

Though the extent of the blow to U.S. food production is unclear—and will depend on how long the pandemic and countermeasures last—widespread food shortages are unlikely anytime soon, several researchers say. Agriculture is considered essential work under the shelter-in-place orders expanding across the country. But farmers must still adhere to social-distancing requirements and can be buffeted by regulations and other changes along the food supply chain, such as the shuttering of restaurants.

Some work can easily continue with little interruption. For example, many U.S. farmers producing staple crops, including wheat and rice, do so with mechanized tools that already limit human-to-human contact and fall within the Centers for Disease Control and Prevention guidelines for limiting the spread of the coronavirus.

But higher-value and more specialized crops face a greater number of hurdles, says Will Martin, a senior research fellow at IFPRI and a co-author of the report. These foods—such as some fruits and organic produce grown by smaller-scale farms—generally require more labor. They are also often sold to restaurants and farmers markets, many of which are now widely closed or have reduced service across the country, rather than directly to the grocery stores that are still operating. Even if these farmers are able to continue working, they may have limited places to sell their goods.

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## **Time to choose a sustainable future for food and farming in Europe**

Can the European Agriculture Policy finally reorient to boost nature and health or is it destined to drive factory farms, chemical-laden monocultures, and global deforestation?

While the safety and quality of food in Europe has improved over the past decades, the negative impacts on the climate, biodiversity and health from our agriculture system have been acknowledged only recently, despite NGOs and scientists raising concerns for more than two decades.

The European Commission is now committing Europe to 'become the global standard for sustainability' and promises that the EU Farm to Fork Strategy will strengthen farmers' efforts to tackle climate change, protect the environment and preserve biodiversity.

A big push is underway to reduce chemical inputs, not just pesticides, but also fertilizers and antibiotics. The cumulative effect on human health of prophylactic use of antibiotics in intensive livestock production has been to contribute to antibiotic resistance; the effects of widespread, multi-annual use of pesticides has been destructive for nature, killing insects, butterflies and bees; reducing the quality of soil and harming hedgerows; as well as entering groundwater and harming human health through high levels of pesticide residues.

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## **Kashmiri Saffron Gets GI Tag For Its Quality As Inferior Imports Disturb Markets**

One of the most popular spices known for its aroma, the Kashmiri Saffron has received geographical indication (GI) tag. The recognition was formally published in the latest GI Journal by the GI Registry. As per the documents, the Geographical Indication Registry has approved the GI tagging on the saffron with GI no 635.

Touted to be the world's costliest spice, the Kashmiri saffron has been witnessing a downtrend in India due to an invasion by cheaper Iranian saffron. Despite being known for its quality and aroma worldwide it has suffered a setback due to other nations such as Iran, Spain, and Afghanistan selling cheaper and inferior quality.

According to reports, Iran is currently the largest producer of saffron in the world, cultivating over 300 tonnes every year on 30,000 hectares of land. In Kashmir, which ranks second in supply, saffron cultivation is limited to about one-eighth of Iran's area – 3,715 hectares. However, due to Iranian infusion in Saffron markets, the price of Kashmiri saffron dropped to nearly 50% after 2007, the year when Iranian imports grew substantially.

Kashmiri saffron is known to be superior in quality having more medicinal value as compared to any other saffron producers across the world. The GI tag on saffron produce will give information on who is the producer, how much has been his yield and most importantly, the quality of his produce, which will help stand out from the competitors in the market. Also, a spice park is coming up at Dussu in Pampore to brand and promote Kashmiri saffron, as per reports.

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## Now, single identity for all foods - FSSAI issues list of foods with HS Code

Clearing the path for single identity for domestic and imported foods, FSSAI has issued a list of food products with their HS (Harmonized System) Code used by the Customs Department for imported food products. The apex food regulator intends to map these Codes with the Indian Food Code System (IFCS) used by it in Food Safety Regulations and Rules thereunder.

In this regard, around 1515 ITC-HS Code of imported food items along with the risk categorisation of the same were finalised by the FSSAI recently. The apex food regulator, in a notice issued here, stated that these food products are being mapped for implementation in Custom's ICEGate (Customs portal) and FSSAI's INFoLNET (Lab Network) to bring uniformity in enforcement.

"FSSAI mapped these 1515 ITC-HS Codes related to food articles with Food Safety & Standards Regulations and Food Code System for further implementation in INFoLNET," the notice says.

The notice added that all the concerned, in this regard, were requested to provide valuable inputs to Imports Division of the FSSAI by April 4, 2020.

The comments were sought to crosscheck mapped ITC-HS Codes with the respective Food Code System and FSS Regulation Number. Secondly, if any other HS Code is missing from the list and any other suggestion related to mapping of HS Codes.

Dr Charu Mathur, advocate, Supreme Court, and food safety law expert, described the development as a good initiative.

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## Future forward trends: What's beyond organic?

Our long-running organic studies here at The Hartman Group have been detecting a broadening of thinking about sustainable agriculture that looks for assurances in farming and production cues that go beyond organic.

The rumblings of progressive, sustainability-minded, organic consumers (which include ideas that center on biodynamic farming and regenerative agriculture) are also being met from the industry side with a push toward disruptive agriculture and explorations of becoming "carbon positive" — all in an effort to combat growing recognition of the effects of conventional agricultural practices on climate change, water resources and biodiversity.

As hinted at in the late 1990s, Hartman Group research continues to find that for Core (those most intensely involved) organic and sustainability-minded consumers, under the related rubrics of purchasing organics and living more sustainably, the topics of responsible farming and land management and their linkages to regenerative agriculture are gaining traction.

Specifically, products sourced with ingredients that restore rather than deplete soil health are on the rise as a distinction of interest among the most engaged consumers.

Our Organic and Beyond 2020 report finds that soil health is an emergent area of consumer concern, as more engaged individuals are able to directly connect soil health issues to the three key drivers of organic.

- Health and Wellness (Better Nutrition).
- Quality (Better Taste).
- Sustainability (Better Ecology).

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## Global sustainability metrics in focus

Pressure is mounting on farmers and the food chain to produce food more sustainably. But there is a problem. There is currently no universal system which accurately and effectively measures how sustainable a product is.

In addition, about £116 billion of environmental and health-related costs are not included in the retail price of food, according to research by the Sustainable Food Trust (SFT).

These two factors mean consumers cannot accurately compare products on sustainability; not just in a range, but across brands, food types, countries and individual farms.

At the other end of the chain, farmers who work at being as sustainable as possible do not often get proper recognition and reward, while there is little incentive for the biggest polluters to change.

For the past four years though, the SFT and a group of farmers and land managers have been developing a framework which would allow the sustainability of individual farms (and therefore products) to be measured.

If retailers and food manufacturers get on board, it is hoped a standardised labelling system would communicate the metrics to consumers. And if governments globally become involved, it could reshape how food is traded.

Patrick Holden, SFT director, said: "I think it is the solution to all the confusion about what sustainable food actually is and the most refreshing thing is that farmers and land managers have developed this themselves.

"In order to get an accurate assessment of the impact of farm level externalities, you have to have a way of measuring it through a harmonised or common framework, not just in the UK but throughout the world. [Read More](#)

## A Guide for Conducting a Food Safety Root Cause Analysis

Learning from food contamination events and foodborne illness outbreaks helps uncover weaknesses in food safety systems and is a foundational property of a truly prevention-based system. Foodborne illness investigation methods continue to evolve to keep pace with changing hazards, technologies, and food production, processing, and distribution systems in an increasingly globalized food supply. However, investigation methods for identifying the root causes of food contamination have not yet been harmonized across food industries, regulatory agencies, academic institutions, and other key stakeholder groups.

Elements of root cause analysis (RCA)—commonly used to investigate air traffic accidents, patient safety issues, and other problems in various industries—have been included in many investigations of foodborne illness, where the technique can identify opportunities for improvement in the food safety system and strategies to solve them. Effective execution and communication of RCA can foster collaboration, trust, and knowledge-sharing among food producers, regulatory and nonregulatory agencies, and consumers. RCA also makes good business sense, because smoothly running operations have less downtime, fewer quality and safety holds, and improved employee morale.

The purpose of this guide is to improve food safety by encouraging the use of RCA in food operations and by safety regulators, and the sharing of information and lessons learned from these investigations. Food operations may include manufacturing and production facilities, farms, restaurants, caterers, or any other business that grows, handles, processes, distributes, prepares, or serves food.

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## COVID-19 and Food Fraud Risk

While foodborne transmission of the novel coronavirus is unlikely, the virus has significantly affected all aspects of food production, food manufacturing, retail sales, and foodservice. The food and agriculture sector has been designated as a "critical infrastructure," meaning that everyone from farm workers to pest control companies to grocery store employees has been deemed essential during this public health crisis.\* As a society, we need the food and agriculture sector to continue to operate during a time when severe illnesses, stay-at-home orders and widespread economic impacts are occurring. Reports of fraudulent COVID-19 test kits and healthcare scams reinforce that "crime tends to survive and prosper in a crisis."

Supply chains have seen major disruptions. Primary food production has generally continued, but there have been challenges within the food supply chain that have led to empty store shelves. Recent reports have noted shortages of people to harvest crops, multiple large meat processing facilities shut down due to COVID-19 cases, and recommendations for employee distancing measures that reduce processing rates. One large U.S. meat processor warned of the need to depopulate millions of animals and stated "the food supply chain is breaking."

Equally concerning are reports of supply disruptions in commodities coming out of major producing regions. Rice exports out of India have been delayed or stopped due to labor shortages and lockdown measures. Vietnam, which had halted rice exports entirely in March, has now agreed to resume exports that are capped at much lower levels than last year. Other countries have enacted similar protectionist measures. One group has predicted possible food riots in countries like India, South Africa and Brazil that may experience major food disruption coupled with high population density and poverty.

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## EFSA assesses health risks of aflatoxins in food

The European Food Safety Authority (EFSA) has published a risk assessment on aflatoxins in food.

The report evaluates toxicity of aflatoxins to humans, estimates dietary exposure of the European Union population to these mycotoxins, and assesses the human health risks due to estimated dietary exposure. The risk assessment by the Panel on Contaminants in the Food Chain is an update of similar work in 2007 and 2018.

It covers aflatoxin B1 (AFB1), AFB2, AFG1, AFG2 and AFM1. More than 200,000 analytical results on occurrence of aflatoxins were part of the evaluation. Grains and grain-based products made the largest contribution to the mean chronic dietary exposure to AFB1 in all age groups, while liquid milk and fermented milk products were the main contributors to the AFM1 mean exposure.

The most frequently found aflatoxin in contaminated food is AFB1. Aflatoxin-producing fungi are found in areas with a hot, humid climate and aflatoxins in food are a result of pre- and post-harvest fungal contamination. Climate change is believed to impact their presence in Europe.

In the international Codex Committee on Contaminants in Food, discussions on maximum levels and an associated sampling plan for aflatoxins in different foodstuffs are ongoing.

The panel said aflatoxin occurrence should continue to be monitored because of potential increases due to climate change using methods with high levels of sensitivity for detection.

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## **EU to halve pesticides by 2030 to protect bees, biodiversity: draft**

The European Commission is seeking to halve the use of chemical pesticides by 2030 to halt the decline of pollinators, in a plan likely to draw criticism both from those urging a phase-out of the substances and from farmers who say crop yields will suffer.

The Commission, the EU executive, wants to commit the European Union to a halving of the use of chemical and "high-risk" pesticides by 2030, a draft document seen by Reuters and set to be published on May 20 showed.

It did not explain what it meant by high-risk or how it would enforce the reduction.

The Commission declines to comment on unpublished drafts, which are working documents and are subject to change until they are adopted.

A Commission plan to make agriculture more sustainable, also due on 20 May, may add details.

Beekeepers in western Europe have reported a fall in the number of bees and colony losses over the last 15 years, the European Food Safety Authority said.

EU lawmakers say this trend endangers the 76 percent of food production in Europe that depends on pollination.

Already EU regulators banned outdoor use of neonicotinoid insecticides in 2018, meaning they can only be used in closed greenhouses.

Some farming groups have said a wide ban on pesticides could cause crop yields to fall, and urged the Commission to assess the impact of the measures before fixing binding targets.

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## **Vertical farms 'in pole position' to disrupt the food system: Barclays Capital**

Vertical farms are poised to capitalise on a US\$50bn (€45.6bn) global market opportunity, according to market analysts at Barclays Capital. However, challenges remain.

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## **Allergens down, microbes up: FSANZ reports 50% rise of food microbial contaminations in 2019**

Food Standards Australia New Zealand (FSANZ) has reported a 50% rise of food contamination cases in Australia by microbes leading to product recalls in 2019, despite a lower overall food recall rate.

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## **Contamination risk: 'Gluten-free' grain-based foods in India found to contain up to 90 times permissible levels**

Almost 10% of grain-based foods labelled as 'gluten-free' and over 35% of those that do not contain gluten by nature in India have been found to be contaminated with it, some up to 90 times more than permitted levels.

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