<u>Proceedings of Joint FSSAI – NVWA session 'Food safety standards, analysis, certification and traceability for fresh fruits and vegetables'</u>

28 February 2020, 11am - 1pm

Participants

- Mr. Henk van der Schee and Mr. Paul Bontenbal, Netherlands Food and Consumer Product Safety Authority
- Dr. Debabrata Kanungo, Former Chairman FSSAI scientific panel for Pesticides and Antibiotic Residues
- Dr. Sanu Jacob, Director FSSAI
- Dr. Devendra Prasad, AGM APEDA
- Dr. K. K. Sharma, Coordinator All India Network Project on Pesticide Residues; Member Secretary of Monitoring of Pesticide Residues at National Level; ICAR-AIRI
- Mr. Mihir Mohanta, General Manager (supply chain and procurement) Head SCM (Horti. SBU), Mother Dairy Fruit & Vegetable Pvt. Ltd.
- Dr. Ahamned Shabeer T.P., Senior Scientist, ICAR-NRC Grapes (GrapeNet)
- Mr. René Zwinkels, advisor TwinsYeald

I Introduction

Dr. Sanu Jacob (FSSAI) introduced the topic. He mentioned the importance of safe fruits and vegetables for zero hunger (SDG2), good health (SDG3) and sustainable production and consumption (SDG12). Increasing safe horticultural production also contributes to Government of India's goals of doubling farmers' incomes and agricultural exports, which often involve stringent food safety requirements. Government of India is supporting this, for example through the Mission on Integrated Development of Horticulture. In parallel, the Food Safety and Standards Authority of India (FSSAI) is actively promoting the consumption of safe, healthy and sustainable food through the Food Safety and Standards Act (2006) and the Eat Right India program.

He mentioned that enforcement activities recently found that 3.7% of food in India is unsafe, but that public perception is that the percentage is higher. With increasing incidences of food borne diseases, he stated, effective communication and access to safe produce is key, as consumers are demanding more information on food safety, hygiene and quality. Online sales deserve special attention, as half of e-commerce growth in the next few years is expected to be food-related. Online grocery retail is expected to grow by 55 percent to \$10.5 billion by 2023.

He outlined the following questions for the session: How can safety of fresh vegetables be monitored? What role can (e-)certification / traceability play in providing information in (online) retail and international trade? What is a cost-effective and scalable way to increase the consumers' knowledge and trust to stimulate healthy choices, while at the same time providing market access to safe and nutritious food? How do we involve MSMEs?

Dr. Jacob mentioned that the session was co-organized by the Netherlands Food and Consumer Products Safety Authority, embassy and the consortium "HortiTechIndia" – a group of highly innovative Dutch companies and knowledge institutes operating in the horticulture sector in India.

Dr. Jacob pointed out that India is the second largest producer of fruits and vegetables in the World, while NL is one of the countries having best agricultural technologies for growing and conserving fresh fruits and vegetables and, therefore, there are lot of potential in Indian horticulture as well as challenges such as post-harvest losses, adulteration, etc. where NL help and expertise can be sought.

II Presentations

Mr. Henk van der Schee (NVWA) explained the background of the EU policy for plant protection products including the processes for establishing MRLs for crop/pesticide combinations (based on consumption data, good agricultural practices and residue levels as found in trials) and authorisations. He also described the Netherlands system of public and private monitoring and sampling procedures. He mentioned projects with non EU countries to reduce rejections (for

example leafy vegetables and citrus), and the role of Codex as international body setting standards for safe food.

Mr. Paul Bontenbal (NVWA) mentioned that a high volume of fruits and vegetable in the Netherlands is sold through retail. Retail and consumer groups are increasing the requirements for growers (residues, labour etc). For example, one big retailer requires pesticide residues to be 66% below what is legally allowed. He also mentioned the rise of SEDEX audit for social and ethical compliance. He mentioned the self-monitoring by the growers organization GroentenFruitHuis (who inform NVWA in case of non-compliance). He explained that GlobalGAP is the world's most widely implemented farm management standard, although other standards such as Fair Trade, UTZ and ISO are also quite common.

Dr. Debabrata Kanungo (former chairman FSSAI scientific panel for pesticides and antibiotic residues) explained that India is a big producer of products such as ginger, okra, papaya, mango, bananas, potatoes, onion, cauliflower, brinjal and cabbages.

He pointed out the health benefits of consuming fruits and vegetables (although consumption is decreasing) as well as export opportunities of the fruits and vegetables sector. He explained that India's and Netherlands' MRL procedures are similar and risk based (including exposure and vulnerability). India does not use a hazard approach in approval/authorization of pesticides as in the EU. He informed the audience that India's pesticide regulation (which provides framework good agricultural practices) will soon change. He pointed to the MRLs notified by India, as well as practices that may reduce health risks of residues such as washing of the product, and the government's new thrust in the Eat Right Movement. He mentioned that food Safety is a hidden attribute of quality, which is highly perceptive by consumers and in some cases is influenced by media/scandals. He mentioned that fresh fruits and vegetables have recently been identified and confirmed as a significant source of pathogens and chemical contaminants that pose a potential threat to human health worldwide.

Dr. Jacob gave the FSSAI perspective. He explained that FSSAI has no standards for fresh - only for processed - fruits and vegetables. FSSAI has 21 scientific panel committees, including one on fruits and vegetables. Relevant legislation includes the 2006 food safety standards act and the 2011 regulation including one on pesticides residue limit. Up to date, 213 pesticides have been notified for different food commodities. Like in the Netherlands, the tolerance limit has been set to 0.01 mg per kg where MRLs have not been fixed yet. 20 pesticides have been banned as per the 1968 Insecticides Act. There are also limits for heavy metals such as lead and cadmium. He also mentioned other topics such as artificial ripening (calcium carbide), artificial wax (three types are permitted) and organic produce (guarantee system, logo) and hygienic rating of mandis and awareness campaigns such as Eat Right.

III Panel discussion

Introduction

The moderator (Dr. Jacob) said all suggestions would be useful for an action plan. He mentioned that it is high time to take "farming to framing" approach to develop policies with action plans that ensures safety of fresh farm products to the consumers.

Dr. K. K. Sharma (IARI) mentioned that they supervise field trials and run a national monitoring scheme for pesticide residues. They analyse market and farm gate data in 32 ISO certified labs; around 2 to 3 % of the samples was above MRL.

Dr. Devendra Prasad (APEDA) described that India is an approved third country for export to the EU, their referral lab tests for exports to the EU and they have developed 65 standards for fruits and vegetables and established a networking of food testing laboratories.

Dr. Ahamned Shabeer T.P. (ICAR-NRC grapes) mentioned ICAR-grapes is the nodal agency for APEDA for export testing mainly to the EU; their main objective is to harmonize testing protocols across India in line with importer requirements. They have analytical Center of excellence, who developed analytical protocols, laboratory training, on-site assessment, proficiency testing program. ISO accredited laboratory.

Mr. Mihir Mohanta (Mother Diary) explained they handle 300 metric tons of fruits and vegetables per day, but that 98% of food retail in India is unorganized.

Mr. René Zwinkels (TwinsYeald) stated that Dutch growers - especially on protected cultivation - are interesting in work together with Indian producers. He explained that the Netherlands has technology, inputs and knowledge to increase food safety and productivity of high quality vegetables. He pointed to low residue levels in the Netherlands and asked how residues could be reduced in India.

Discussion

Asked how retail can improve food safety monitoring or consumer awareness regarding residues, Mr. Mihir Mohanta (Mother Dairy) explained that the small scale of production and thus the small amounts of produce that are aggregated several times hamper traceability and food safety. Also, there is a lack of ripening chambers, although this is improving in metros. Many farmers do not have the knowledge on how to apply crop protection products or aim to minimize risk by overapplying (although there are also tribes that are completely organic). Mr. Mohanta mentioned how Mother Dairy is successfully exporting mangoes, which demonstrates that food safety and traceability is achievable. If the local consumer is willing to pay more, they can do the same for domestic market.

For exports, Dr. Prasad explained that due diligence lies with the food operator. They have learned how to establish food safety on a risk-basis. For example, for grapes and pomegranate there are hardly any accidents with exports which has led to less certificates/checks. Asked whether any further public or private interventions are needed, he mentioned they already have traceability up to the farm level and aggregation/handling takes place in an official location and there's good public private cooperation. Dr. Prasad also mentioned that Tracenet has 12 lakh farmers registered under organic cultivation.

Mr. Ahamned Shabeer (ICAR-grapes; GrapeNet) explained the GrapeNet ISO-accredited preshipment inspection program which is covering an increasing number of substances and does not take much time. APEDA added that this is also being developed for pomegranate, peanut and okra. Mr. Mohanta added that the domestic scenario for India is very different, as the consumer needs to be willing to pay for a higher standard. Mr. Shabeer (ICAR Grapes) mentioned that they also have a domestic field certification program for zero residue grapes which are sold at a premium in the Indian market. It seems important to integrate stakeholders in one system.

Dr. K. K. Sharma stressed the importance of proper plant protection including pesticides for food security. He criticised strict MRLs for pesticides that are not registered in the EU as they hamper trade, and stated the importance of taking risk into account. Mr. Zwinkels pointed out that integrated pest management is important, and that use of natural predators (now subject to very high inspection fee) can greatly bring down pesticide use in protected cultivation.

IV Conclusions and suggestions for follow-up

- Consumption and production of safe fresh fruits and vegetables is important for good health, farmers' incomes and provides export opportunities.
- India and NL are two main fruits and vegetables producing countries, and face similar challenges. In both countries both public and private stakeholders are taking action to ensure food safety. For protected cultivation, the Netherlands has achieved a great reduction in pesticides use by following appropriate IPM techniques including working with natural predators. India has acquired a large overseas market presence in grapes and pomegranate through a coordinated approach by APEDA.
- Bringing stakeholders together, applying new technologies and approaches such as GrapeNet and increasing farmers' knowledge and practices in crop protection provides opportunities to increase safe production of fruits and vegetables, exports and farmer incomes.
- For the domestic market there could also be an opportunity to increase consumer awareness, for example through labeling as has been done for grapes. This will provide the necessary impetus in the fruits and vegetable value chain especially retailers and growers to increase food safety and traceability measures.