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From HACCP To FSMA: The Evolution Of Global Food Safety & Quality

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By Sam Lewis, associate editor

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Food safety and quality certainly have changed in the last two decades. But, what are those changes and how are they ensuring consumer safety? Here, Gaurav Tewari, director of quality assurance at Sargent Farms, answers my questions about the evolution of food safety and quality management systems (FSQMS), GFSI, FSMA and how they help keep the global food supply safe. Tewari will be speaking at the upcoming 13th Annual North American Summit on Food Safety held April 26-27 in Toronto, ON.

Food Online: Much has changed in food safety and quality in the last 20 years. In your experience, what are those major changes and how is the industry, in both the U.S. and Canada, embracing them?

Tewari: While working with innovative processes — such as ultra-high pressure, ohmic heating, and aseptic processing — early in my career, I had insight into quality assurance programs at the “plant operations” level. I was also actively involved in identifying and developing CCPs and making sure prerequisites were in place prior to HACCP being implemented. I did this not only on the research level, but I was also able to help commercialize these innovative processes for major food companies.

That phase of my career had a focus on HACCP reinforcement, risk-based QA program development, the importance of the “operations buy in” into QA programs, and the importance of an effective FSQMS.

I also became further involved with HACCP. Since the FDA was associated with the National Center for Food Safety and Technology (NCFST), I got the opportunity to work with a HACCP team led by Dr. John Larkin to understand the basic fundamentals of HACCP. Then, in the year 2000, GFSI was brought into the American and Canadian food industry, with HACCP being its backbone.

The subjective differences of food safety and quality I see now, versus the start of my career, include a greater awareness of innovative processes, as well as quality assurance programs among small- and medium-sized food companies. This is primarily due to stringent requirements by retailers. Additionally, I’m noticing innovations in quality assurance and food safety are readily being adopted by food companies. Regulators also have a better understanding of innovations and validation procedures, which helps the development of food safety culture.

I strongly believe the introduction of GFSI, and more recently FSMA, have reinforced the food safety concept with the day-to-day food plant operations. The real effectiveness of such programs is only possible when they have **global buy in**, not merely fulfilling the paperwork. Nevertheless, as much as it sounds straightforward, there is a steep learning curve an operator has to go through to have an effective FSQMS.

Food Online: Can you elaborate a bit on the steep learning curve for operators, as well as what exactly is involved in an effective FSQMS?

Tewari: I believe food professionals understand “the why” behind the strict scrutiny of GFSI and FSMA. While all the requirements for these certifications and regulations are being introduced into the plant operations, in reality, these requirements can be seen as a burden and can cause huge conflicts between quality and operations departments. Essentially, this defeats the effectiveness of such programs and becomes sort of a “formal red tape.” One should not forget: for these programs — GFSI, FSMA, HACCP, and any food safety protocol, really — to be effective, the buy in from operations is the prime prerequisite.

These certifications and regulations are only 100 percent effective when the buy in is companywide, from management to the people on the floor. This is a herculean task which cannot, and should not, be seen as a “quick fix.” Some of the major recalls the Canadian meat industry has seen in the last eight years are due to “documentary fulfillment,” HACCP, and other requirements, as well as forgetting the key fundamental of having proper prerequisites and buy in from all departments.

No matter how many certifications we have and how many regulations we impose, if it is not reflected on the production-floor of the company, then in reality, it is a waste! Effective means complete, 100 percent buy in throughout the supply chain. There is NO short-cut in “food safety.” I understand “food safety culture” is becoming a buzz term in the industry. However, this all starts with understanding the fundamentals of prerequisites and doing it



on a daily basis through all walks of the plant. This is a major challenge for companies who deal with global suppliers.

Food Online: What challenges are domestic companies who import foreign ingredients facing? How do they overcome those challenges?

Tewari: The challenges depend upon the risk category of the food sector the company is in. Based on first-hand experience in managing global accounts, I categorize the challenges and ways to overcome them as follows:

1. High-risk category while sourcing globally:

Challenges: Location of the global supplier; socio-political situation; whether it is a trusted name/brand or emerging brand; in-house quality department; bio/qualification of the quality personnel; language barriers, if any.

How to overcome: Local QA presence; Unannounced regular QA audit [on your own] including local QA and validation of sanitation on the spot; product testing at a globally accredited lab; GFSI certification

2. Medium-risk category sourcing globally:

Major challenges: Location of the global supplier; socio-political situation; economic strength of the country; whether it is a trusted name/brand or emerging brand; in-house quality department; bio/qualification of the quality personnel; language barriers, if any.

How to overcome: Unannounced, regular QA audit [on your own] and validation of sanitation on the spot; product testing at a globally accredited lab; GFSI and/or HACCP certification.

3. Low-risk category sourcing globally:

Major challenges: Location of the global supplier; socio-political situation; economic strength of the country; whether it is a trusted name/brand or emerging brand; in-house quality department; bio/qualification of the quality personnel; language barriers, if any.

How to overcome: Regular QA audit [on your own]; product testing at a globally accredited lab; GFSI and/or HACCP certification.

Food Online: Based on your experience, and with FSMA being heavily regulated, what are the global challenges a food processor may face?

Tewari: One needs to be fulfilling FSMA requirements, period! Global food companies, which were already supplying to the U.S., had years to prepare for the upcoming regulations. Now, the food safety standards shall be very uniform at global level. This holds especially true for larger companies competing at the global level in U.S. markets. Any shortcuts in food safety are not possible now and food safety and food quality shall become the backbone of global-level food companies, even if this means output is compromised. Before, the output of production would have priority over safety and quality. At times, due to competing priorities, "production" was given priority. Whereas **now**, food safety and quality, **by law**, shall be running global food operations with zero tolerance for any compromise in food safety!

About Gaurav Tewari



Gaurav is a Food Process Chemical Engineer with more than 25 years of Global Food Industry experience. He holds Bachelors of Engineering from GB Pant University [India] and a Masters and Ph.D. in Food Process Chemical Engineering from the University of Manitoba, Canada. Prior to joining Sargent Farms, Gaurav worked as the Global Director of Quality, Food Safety & Research with Marcatus QED, which has its world-headquarters in Toronto. As the Global Director, he managed the co-manufacturing of several products for Unilever (Europe), Pinnacle Foods (USA) and Mount Olive (USA), and oversaw quality assurance and continuous improvement of process operations of over 20+ global manufacturing plants with GFSI certifications, and led several multi-million dollars product launches from pilot to full production.

For more information about Gaurav Tewari's global food safety endeavors, be sure to attend the upcoming 13th Annual North American Summit on Food Safety held April 26-27 in Toronto, ON. At the show, Gaurav will be sharing insights on FSMA, GFSI, and Food Safety and Quality Management Systems. For more information, click [here](#).

