



Rapid changes in the global economy are quickly impacting the quality of the food we eat.

How Safe Is Our Food? An X-Force Interview with Dr. Michael Doyle



Dr. Michael Doyle

The simple act of eating something is far more complicated than it appears, especially if that food is imported and is fresh produce like vegetables. According to Dr. Michael Doyle, a member of the Preparis X-Force and the Director of the Center for Food Safety and a Regents Professor of Food Microbiology at The University of Georgia, imported foods produced or processed under inadequate conditions are the foremost concerns among many food safety experts. Fresh vegetables are also known to be leading carriers of food-borne illnesses can be concerns as well.

These are not the only problem in the food supply, however. Dr. Doyle has been a key scientist in the arena of food safety for more than 25 years. He holds three patents on controls of *E. coli* 0157 and has published a plethora of articles about food safety in respected journals. In this interview, he identifies some top challenges to our food supply today and in the future:

Q: What do you think is the main challenge to our food safety, today and in the future?

A: The number one challenge to our food safety is our global economy. Currently, about 15% of the food consumed in the United States is imported, with much larger percentages in certain categories (about 85% of fish and shellfish, 45% fresh fruits, 40% lamb, 16% vegetables, 12% beef). A good deal of this food comes from countries that may not have the same sanitary conditions and farming and processing standards that we have. Agriculture in China, in particular, is comprised of many small farms and small

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X-Force Executive Brief

processors whose objective may be to maximize yields. This can lead to using excessive amounts of pesticides, including some that are not approved in the United States, farming soil that contains lead and unapproved antibiotics to raise fish in unsanitary conditions. Currently, the U.S. Food and Drug Administration (FDA), which has oversight for about 80% of our food supply, visually inspects only about 1% of imports and tests less than a half of a percent. This leaves the door open for entry of foods with little to no regulatory oversight.

Q: What are the roles of the government and the food industry in protecting the safety of our food supply?

A: The role of the government is not to produce safe foods. That is the food industry's responsibility. The role of the government is to provide oversight of this safety. Unfortunately, not every company shares the same level of commitment to food safety. There are those that operate using the best food protection practices of the industry. For instance, in the beef industry, some companies go above and beyond federal standards to add food protection interventions to their production and processing practices, including carcass pasteurization, organic acid rinses and even going back to the hides of animals to remove bacteria before slaughter. Some companies strive for only basic compliance with food safety rules. Others, unfortunately, may focus more on reducing costs than on providing a safe product. This wide range of practices means that no blanket statement can be issued regarding the safety of food in our country. There are clearly areas in need of improvement and increased oversight.

Q. Where are the “holes in the system” regarding our food safety oversight?

A. Even though some of the best food safety experts in the world work at the FDA, there are just not enough of them to provide sufficient oversight of the food industry, nor do all aspects of food safety fall under its jurisdiction. One agency, the USDA-Food Safety and Inspection Service (FSIS), is in charge of inspections at meat and poultry processing plants. Another, the USDA-Animal and Plant Health Inspection Service (APHIS), is in charge of oversight of animal and plant health on the farm. Inspection protocols differ from agency to agency, with many protocols reflecting decades-old statutes that have not been updated to address today's realities. Clearly, a more contemporary and coordinated food safety program is necessary to ensure the safety of our food system.

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Q. How can changes in agriculture affect our food safety?

A. There has been an enormous transition in the United States over the past few decades in regards to how livestock and poultry are raised. Today's greater confinement of these animals presents the potential for food safety risks such as the possibility that crowding animals together may cause stress. This heightened stress could increase excretion of harmful bacteria. What's more, changes in feed options from animals' natural diets to include industry waste products (such as the growing practice of feeding waste from ethanol plants to animals as feed) presents unknown ramifications for the safety of our food system.

Q. What about worldwide population growth and its affect on food safety?

A. With world population growing at the current rate, we are heading toward a food crisis where our ways of producing food will be inadequate to feed the planet. Current food safety treatments such as chlorine washes of fresh fruits and vegetables reduce pathogens but do not eliminate them. Irradiation of meat, which can kill pathogens, is currently not widely accepted by consumers. Continual scientific research seeks to develop solutions to food safety issues that will provide sufficient rewards that outweigh risks to consumers. Although the subject of great debate, genetically-modified organisms (GMOs, may be an important way to increase our global food supply.

According to Dr. Doyle, consumer confidence in the U.S. food supply is diminishing because of food safety concerns. He says part of that reason is because of the spate of recent food-related outbreaks. Many consumers are interested in knowing the risks associated with eating different types of food, especially those like raw milk that can carry harmful microbes. For this reason, transparent scientific information is critical for consumers to have in order to make personal decisions regarding the food they choose to purchase and eat.

Dr. Doyle suggests that in addition to following news stories relating to food safety, consumers can obtain more detailed information on the websites of government agencies. Both the Centers for Disease Control and Prevention (CDC) and the FDA maintain highly useful websites: www.cdc.gov and www.fda.gov. Additionally, knowing the source of your food and the way it is grown, and following safe handling procedures for preparing food (also available on these websites) may be your best protection against food-borne illnesses.

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