

Smart Food Safety Control in Thailand: Integrating Rapid Alert and Digital Traceability through THRASFF and QR TRACE on Cloud

Ensuring food safety in today's complex and interconnected food supply chains requires more than traditional control measures. Timely access to reliable information, effective risk communication, rapid response, and end-to-end traceability are increasingly essential to protect consumers and maintain confidence in the food supply.

Thailand has been advancing digital approaches to strengthen food safety control by integrating rapid alert mechanisms, digital traceability, and transparency. This presentation shares Thailand's experience with the Thailand Rapid Alert System for Food and Feed (THRASFF) and QR TRACE on Cloud, highlighting how these digital tools can complement each other to strengthen food-safety management.

THRASFF supports the identification, notification, and sharing of information on food and feed safety risks, enabling relevant authorities to communicate risks and facilitate timely responses. Complementing the rapid alert mechanism, QR TRACE on Cloud provides digital access to products and supply-chain information through QR-based technology. It enables consumers, businesses, and competent authorities to access relevant information, supporting greater transparency, traceability, and confidence in food products.

The integration of these digital tools demonstrates how information can be connected across different stages of the food-safety control system—from risk detection and incident notification to product tracing, verification, risk communication, and response. This integrated approach can strengthen the availability and use of timely, reliable data to support risk-based decision-making and more coordinated action among stakeholders.

Thailand's experience demonstrates how digital technologies can help transform food-safety control from a mainly reactive approach toward a more proactive, connected, transparent, and responsive system. The presentation will highlight key concepts, implementation experiences, challenges, and opportunities for further development, including data integration, interoperability, stakeholder participation, and effective use of digital information.

Ultimately, Thailand's approach demonstrates that smart food safety control is not only about adopting new technologies, but also about connecting people, information, and regulatory processes to create a more responsive, transparent, and trusted food-safety system.