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## Quantitative identification of species and GM ingredients in food

**Tingting Deng**

Chinese Academy of Inspection and Quarantine, China

GM content in food and feed is strictly regulated in most countries around the world. The implementation of regulation requires the establishment of GMO detection methods that are specific, reliable, sensitive and suitable for quantitative GMO detection. Meat adulteration and mislabeling is also a world widely concern in recent years. However, the determination of adulteration ratio has become a critic issue due to the lack of effective quantitative technique. This presentation will report droplet digital PCR method for quantitative determination of GMO rice events and meat species in food. The experimental amplification results of relative quantification all perfectly matched the theoretical results and the limit of quantitative (LOQ) of GMO was determined to be 0.1%, lower than the labeling threshold level of the EU and many countries, while the meat species method was confirmed to be 1% (w/w). Moreover, its use for several types of food, feed and seed matrices commonly found in routine samples has been verified.

### Biography

Tingting Deng, Ph.D., Associate Professor of Chinese Academy of Inspection and Quarantine. Over the past 9 years, she has been focusing on the inspection and quarantine work, devoting herself to the research on the theory and practice of food scientific analysis and finishing research work in the field of the application of molecular identification in food properties, such as GMO detection, food authenticity identification. For the past 5 years in particular, Dr. Tingting Deng has conducted innovative study on the application of molecular biological techniques in the analysis of food and agricultural products with the support of many national scientific research projects. She has won 1 second prizes of Provincial and Ministerial Level Scientific and Technical Progress, 1 First Prize of Chinese Institute award of Food Science and Technology, published 12 papers, been authorized 10 national invention patent and participating in formulating 41 industry standards.

angellove0405@163.com

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