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《互联网农产品质量》专题快报

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该信息参考面向院士专家开放订阅，每两周一期，欢迎订阅。

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【动态信息】

1. 标题：长三角地区共同推进食品安全追溯体系建设

【中国食品网】近日，安徽省食品安全委员会办公室（省市场监管局）在该省蚌埠市牵头组织召开了 2019 年长三角食品安全合作组专题会议，重点研究推进长三角地区食品安全追溯体系建设和整治食品安全问题联合行动工作。安徽省市场监管局副局长杨士友、上海市市场监管局总经济师杜贵根、江苏省市场监管局副巡视员冯兴汉、浙江省市场监管局副局长卢永福出席会议并讲话。

链接：**http://www.cnfood.com/news/show-320990.html**

2. 标题：李克强签署国务院令 公布修订后的《中华人民共和国食品安全法实施条例》

【央广网】据中央广播电视总台中国之声《新闻和报纸摘要》报道，国务院总理李克强日前签署国务院令，公布修订后的《中华人民共和国食品安全法实施条例》（以下简称《条例》），自 2019 年 12 月 1 日起施行。《条例》共 10 章 86 条。

链接：

https://baijiahao.baidu.com/s?id=1648957979061832839&wfr=spider&for=pc

【文献速递】

1. 基于区块链技术应用于绿色有机食品溯源系统的探索

作者：王健佐

文献源：农村实用技术，2019

摘要：在食品供应链全球化的背景下,食品的生产加工和物流供应正变得越来越相互依赖和融合,带来更多的机遇和挑战。传统溯源系统存在数据存储中心化、信息孤岛等诸多问题,又因食品供应链本身极度分散,导致溯源难度很高。通过区块链技术其分布式存储、加密算法、数据不可篡改和时间戳等特性,引入区块链共识机制,将技术与模式相结合,建立具有可信性的食品溯源系统进而实现真正意义上的溯源,有效助推绿色有机食品溯源产业发展。

2. 基于互联网购物线上养殖和食品溯源 App 设计

作者：贺小雨，魏巍，张永德，朱凤武，冯伟志

文献源：科技传播，2019

摘要：消费者可通过 APP 的定位系统对就近牧场的牲畜进行购买,并可直接通过 App 在线对牲畜进行饲养,喂养的材料及饲养方式由消费者自主选择,由牧场服务人员代劳,而且可以通过 App 在线实时监控。牲畜可由买主自行处理,买卖或者食用。达到既能盈利又能食用"放心肉"的服务效果。同时更是响应党的政策,助力国家解决"三农"问题,在保证公司正常盈利的同时,又能达到帮助农民脱贫致富的效果。

3. Recent development in the application of analytical techniques for the traceability and authenticity of food of plant origin

作者：Syed Abdul Wadood,Guo Boli,Zhang Xiaowen,Imtiaz Hussain,Wei Yimin

文献源：Microchemical Journal，2020

摘要：The traceability of agro-products are very crucial as the food with know and guaranteed origin charged a high premium; meanwhile, the authenticity of the food product is also very necessary, since the adulteration of agro-products with cheap ingredients or chemicals pose a serious health threat to the consumer. Therefore there

is clearly need to demonstrate these authenticity problems by modern analytical techniques. This review attempted to highlight the current overview in the application of analytical techniques such as liquid and gas chromatography, isotope ratio and elemental analysis, spectroscopic, DNA based and sensor technologies for the authentication of food of plant origin, with a special focus on geographical origin traceability and authenticity during the last five years. Papers cited here mainly include fruits, cereals, pulses, tea, coffee, spices, edible oil, fruit juices, and alcoholic beverages. The effectiveness of these techniques in laboratory and industrial level and also their advantages and drawbacks are discussed.

4. Consumers' valuation for food traceability in China: Does trust matter?

作者：Ruifeng Liu,Zhifeng Gao,Rodolfo M.NaygaJr.,Heather Arielle Snell,Hengyun Ma

文献源：Food Policy，2019

摘要：Food safety is a very important topic in China. We investigate Chinese consumers' preferences and willingness to pay (WTP) for food traceability using a choice experiment. Given that consumers' trust in the food system may affect their preferences and WTP, we also assess the interaction between consumers' trust in government's supervision of food safety and food labels and consumers' preferences for traceable food products. Using data collected from a choice experiment on Fuji apples in a face-to-face survey in six Chinese cities, the results show that (i) consumers are willing to pay for traceable food but their valuations can differ upon the degree of their trust in government's supervision of food safety and food labels; (ii) consumers are willing to pay for traceability with strong evidence of preference heterogeneity; (iii) government is not the most trusted safety inspection and certificate authority as found in prior studies using animal food products in China.

5. Consumers' willingness-to-pay for food safety labels in an emerging market: The case of fresh produce in Thailand

作者：Rungsaran Wongprawmas,Maurizio Canavari

文献源：Food Policy,2017

摘要：Food safety systems in emerging markets are currently facing a transformation period, becoming more stringent because of an increasing demand for safer food. Consequently, policy makers need to find strategies to increase food safety while giving the industry time to improve their performance. In Thailand, policy makers have adopted the strategy of upgrading food safety standards gradually. Government and private food safety brands and labels were introduced onto the market but little is known whether Thai consumers have preferences for them or not. This study is aimed at evaluating Thai consumers' preferences for food safety labels and brands on fresh produce, using a surveyed based on discrete-choice experiments. A sample of 350 Thai consumers was surveyed in Bangkok and Nonthaburi in 2013. Quota sampling according to the shopping outlets and convenience sampling methods were adopted. Two hundred respondents were recruited at fresh-food markets and 150 respondents were recruited at supermarkets. We found that consumers are willing-to-pay more for both government led food safety label and private brands, but that there is high heterogeneity in their preferences. The high degree of social desirability for food safety labels confirms that food safety labelling policy should be supported. However, the provision of information and credibility are vital in order to mitigate the risk of consumer deception by self-claimed labels.

6. 87Sr/86Sr isotopes in grapes of different cultivars: A geochemical tool for geographic traceability of agriculture products

作者：Ines Tescione,Sara Marchionni,Martina Casalini,Nadia Vignozzi,Massimo Mattei,Sandro Conticelli

文献源：Food Chemistry，2018

摘要：87Sr/86Sr was determined on fresh red and white grapes, soils and rocks from three selected vineyards to verify the isotopic relationships between the fruit of the vine and geologic substrata of vineyards. 87Sr/86Sr were determined on sampled grapes of four different harvest years and different grape varieties, on bioavailable fraction of

soils, on whole soils, and on bedrocks from the geo-pedological substratum of the vineyards. The vineyards chosen for the experimental works belong to an organic farming winery and thus cultivation procedures were strictly controlled.

Grapes were sampled during the harvests of four different but consecutive years with 87Sr/86Sr that does not change reflecting the values of the soil bioavailable fraction. No variations among grapes from different vine cultivars were observed. A strict isotope relationship with soil bio-available fraction was observed. These findings demonstrate the reliability of 87Sr/86Sr, even at a very small scale, for food products geographic origin assessment.

7. Geographical origin traceability of tea based on multi-element spatial distribution and the relationship with soil in district scale

作者：Lei Li,Bo Wen,Xiaolei Zhang,Yue Zhao,Yu Duan,Xiangfei Song,Shuang Ren,Yuhua Wang,Wanping Fang,Xujun Zhu

文献源：Food Control，2018

摘要：In this study, a discriminant model was established by determining mineral element contents in tea leaves and the soil, collected from Lishui, Jiangsu Province, China. The contents of 12 elements (Se, Zn, Ni, Mn, Cr, Pb, Mg, Ca, Cu, Al, Na, and K) were determined in both tea leaves and soil samples. Cluster analysis and principal component analysis (PCA) were employed for regional classification of tea samples. After data conversion and correlation analysis, spatial and quantitative prediction models were established by ordinary Kriging interpolation and multiple linear regressions. The results indicated a corresponding relationship of elements between tea and soil, and the cluster analysis and PCA showed a clear distinction between tea from the north to that from the middle and south of Lishui. Kriging interpolation predicted the levels of 12 elements, and among them, Se, Ca, and Cr showed a related spatial distribution. Three linear regression equations were established using Mn, Al, Ni, and K contents and soil pH, and these equations fitted well between predicted and actual values. The established linear equations can be used to identify the predominant mineral

elements in tea plants and soil from Lishui and to identify the geographical origin of the tea product.

8. Strontium elemental and isotopic signatures of Bordeaux wines for authenticity and geographical origin assessment

作者：Ekaterina N.Epova,Sylvain Bérail,Fabienne Séby,Véronique Vacchina,Gilles Bareille,Bernard Médina,Laurence Sarthou,Olivier F.X.Donard

文献源：Food Chemistry，2019

摘要：The 87Sr/86Sr ratio and Sr concentrations of 43 authentic Bordeaux wines from the world's most prestigious châteaux are presented in the context of their relation to the geographical origin of wine and authenticity. The results demonstrate relatively narrow spans of variabilities observed for 87Sr/86Sr ratio and Sr concentrations in authentic Bordeaux wines, which can be used with reasonable certainty as specific parameters for identifying regional wineries. For comparison, a set of imitated Bordeaux wines was studied for Sr isotopic and elemental compositions. A significant excess of both parameters in suspicious wines were found in reference to authentic values. Such natural and anthropogenically induced variations offer an enhanced discriminating potential of Sr. The unique Sr binary signature may detect imitated wines and trace genuine products from different regional wineries. The obtained results shown a promising perspective for wine authenticity control by means of Sr isotopic and elemental composition.

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