


# 食品安全的 经济分析与管理研究

王华书◎著



ECONOMIC ANALYSIS AND  
MANAGEMENT STUDY OF  
AGRIFOOD SAFETY

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# 摘 要

食品安全 (food safety) 是农业发展与食品政策研究中的重要问题, 保障食品安全也是国家政策与管理职能的主要目标之一。受国际性食品与健康问题, 如疯牛病 (BSE)、口蹄疫 (FMD)、二恶英 (Dioxin)、禽流感 (Avian Flu.) 等暴发的影响, 国际社会对食品质量安全 (food safety) 的关注程度逐步加强。而中国由于长期对农业资源环境的不合理开发与利用, 导致农业环境污染问题日益严峻, 造成的食品食用安全和卫生隐患日益突出。食物链的不断延长, 使食品安全问题逐步凸现出来, 如劣质奶粉事件、禽蛋事件等。面对日益严峻的资源环境制约, 对食品安全及管理政策的研究更多的与资源环境的可持续开发和利用、要素利用效率的改善与政策实施状况的评估等问题结合起来。本书根据社会经济与农业发展中的食品安全状况及其变化趋势, 运用基本经济学理论, 以及环境经济学、制度经济学、信息经济学等相关原理, 采用宏观与微观、规范研究与实证研究相结合的方法, 对食品安全的影响因素进行了分析, 并从产业链拓展、行为规范、制度约束与监督体系等角度, 对食品安全管理政策、体系、系统、途径等问题进行了探讨。研究结论对促进食品安全的规范化管理具有重要的理论与实践意义。

根据发展背景以及国内外相关研究, 本书对食品安全的内涵和外延进行了科学界定, 并从发展历程与科学技术规范分析中归纳总结出影响食品安全的主要因素; 围绕着保障食品安全的生产与促进食品安全的消费活动, 分别从直接以及间接影响食品安全

的生产投入性要素及其利用效率，以及居民对食品安全的认知、购买与支付意愿等两个方面，对食品的生产 and 消费行为及其影响因素进行了实证分析；针对目前食品安全市场准入管理制度在我国的全面实施，从供给、需求以及福利影响角度对其绩效进行了评价；通过比较国内外安全食品开发管理的经验以及实践道路，以南京市为例，对我国地区食品安全的开发实践与对策进行探讨；探究了食品安全管理体制建设的规范化问题，并从供应链角度，对食品安全管理路径进行了探讨；最后，综合以上研究结论，从完善食品安全法规、标准等管理制度，提高资源环境保护与利用的综合管理水平，以及对安全食品开发经营活动的有效管理等角度，提出了保障和改善我国食品安全，实现规范化管理的对策措施。

本书共由引言和十三章内容组成，各章节的主要内容如下：

引言，阐述了研究的背景，提出了研究的基本前提和假设，介绍了研究的技术路线与主要方法，以及研究的具体框架与内容等。

第一章，文献与理论综述。主要对国内与国外相关研究文献情况进行了回顾与总结，对指导研究展开的相关经济理论与管理原理，包括资源稀缺论、效率配置论、市场理性论、外部性、信息不对称与市场失灵论等，进行了归纳和要点分析。

第二章，基本概念以及研究外延的界定。主要对我国食品发展的历程及其状况、目前食品发展存在的主要问题进行了分析。结合资源环境开发利用状况，以及国内外对食品安全问题的研究，对食品安全的内涵进行了界定，即在保障食品供应数量以及人们获取食品能力的前提下，协调食品供给与环境保护之间的关系，满足人们不断提高的对食品质量和安全性的需求，使食品生产与消费的社会福利水平得以改善和增进。研究外延主要从两个

方面展开：从经济学的角度，主要侧重于对食品安全的影响因素及其影响程度的分析；从管理学的角度，表现为对促进食品安全的开发途径以及管理体制的探讨。

第三章，食品安全影响因素与安全食品开发。对国内外食品安全发展的状况、主要技术规范进行了比较分析，提出了影响食品安全的主要因素，具体包括：（1）环境因素；（2）技术因素；（3）制度因素；（4）观念因素等。

第四章，食品安全的生产分析。分析了与食品安全相关联的主要环境因素，以及关键环境因子，侧重对农业生产中农药和化肥等生产技术性投入要素的使用进行了分析。根据我国食品生产及行为变化的特点，运用经验数据对关系食品安全的环境因子进行了行为影响因素的实证分析，并总结了相关研究结论的经济与政策含义。

第五章，食品安全的消费分析。主要分析了我国食品消费及行为变化，对食品安全消费行为的影响因素进行了识别。在此基础上，运用调查数据对影响安全食品购买以及支付意愿的因素进行了实证分析，并总结了相关研究结论及政策含义。

第六章，我国安全食品开发管理经验比较研究。比较了美国、德国、日本等国外食品安全开发管理实践，以及深圳、上海、黑龙江等国内食品安全开发管理实践，总结了有利于促进食品安全规范化管理的先进经验。

第七章，我国安全食品开发管理实践的调查分析。以南京市为例，分析了南京市安全食品开发的模式、重点、方式、布局等内容；提出了食品安全开发管理的基本思路，包括通过农业产业化发展巩固食品安全开发管理的基础，以及在新型农业工业化发展中推进食品安全开发管理的规范化进程。

第八章，国内外食品安全政府管理体系分析。从食品安全生

产与消费的管理组织、制度及其实施等方面，探讨了食品安全管理体系的完善途径。

第九章，食品安全管理制度及评价。对食品安全管理制度，重点对市场准入制度进行了分析和评价，以及食品安全可追溯制度、食品召回制度、食品安全风险分析与预警制度、食品安全信息披露制度，以及食品安全社会信用体系等，进行了分析和评价。

第十章，食品安全规制与食品安全系统。对食品法典(CAC)、《实施动植物卫生检疫措施协议》(SPS)以及技术性贸易壁垒协定(TBT)等食品安全规制，以及 HACCP、ISO22000、EUREP-GAP、BRC，与 SQF1000 和 SQF2000 等食品安全系统，进行了分析与比较。

第十一章，基于供应链的食品安全管理探讨。探讨如何站在供应链视角，积极探索科学整合相关学科以及各种食品质量管理体系的路径，以真正完善政府部门对食品安全的管制，实现企业对食品质量安全的有效管理。

第十二章，我国乳业链质量安全管理的调查。基于我国乳业生产正经历前所未有的变化与发展，以及这种变化和发展在我国不同区域的农业生态和社会文化条件下表现出的差异性，探讨了塑造我国乳业链质量安全管理的长期与短期可持续发展的思路与框架。

第十三章，食品安全规范化管理对策建议。主要从六个方面提出了实现食品安全规范化管理的对策：(1) 加强食品质量安全法规、标准与检测体系的建设；(2) 加强对资源、环境及其相关信息的规范化管理；(3) 加强对食品开发经营活动的管理；(4) 强化食品行业协会对食品安全管理的组织、协调与监督；(5) 全面提升企业食品安全管理水平；(6) 合理引导关系食品安

全的微观行为。

本书对目前食品安全的相关理论进行了拓展，并在研究方法上进行了新的探索。可能的创新之处包括：（1）在经济分析方面，对影响食品安全的生产效率与环境效率进行了分析，有针对性地提出了主要控制环节；从农户和消费者微观行为的变化入手，对直接和间接影响食品安全的生产技术性因子（农药与化肥）、消费行为影响因素进行了实证检验，并分析了研究结论的经济与政策内涵；（2）在管理研究方面，对食品安全生产与消费管理体制，地区开发管理的方略等进行了探讨，并对管理制度绩效进行了评价。在此基础上，提出了促进我国食品安全规范化管理的对策措施；（3）在数据的收集与处理中，生产方面首次主要利用地区物价部门的台账资料，构建了农药使用与化肥使用效率指数模型；消费方面主要运用CV法（消费者意愿调查法）获取了第一手的微观数据资料，分两个阶段构建了考察购买与支付意愿及其关系的Probit和回归模型。

有待进行深度研究的领域和内容包括：（1）受数据的局限，本书主要将重点放在对影响食品安全开发管理中主要生产技术性因子以及局部消费情况的考察，对全局或整体特征的考察需要进行深入的调查和研究；（2）受实践及工作经验的限制，对食品安全开发管理方略的探讨和管理对策的研究重点主要放在已经取得了一定开发管理经验的领域，如绿色食品、有机食品、无公害食品的开发等，以及问题比较突出、改革较为紧迫的管理领域。对于其他开创性领域的探讨，如食品安全开发管理模式创新、管理体制的变革等，有待在此基础上深入进行。



# ABSTRACT

Food safety is the important issue in agricultural development and the research of food policy. Influenced by the food and healthy problem around the world, spotted by mad cow disease (BSE), foot-and-mouth disease (FMD), dioxin (PCDD/Fs) and avian flu etc., the food quality and safety has been getting reinforced by the international community. The disharmonious development and use of the environment and resources for a long time leads to the serious pollution of agricultural environment, which cause the unfavorable effect on food safety with hidden trouble of hygiene. Facing the increased restriction of resources and environment, the researches of food safe and its management policy are collaborated tightly with the issues of sustainable development and exploitation of resources and environment, as well as the improvement of inputs efficiency and assessment of policy enforcement. With the current situation and the changing tendency of food safety in agricultural and social economy development, combining the macro-with micro-analysis, normative with positive analysis, the book has analyzed the factors influencing the food safety, and discussed the problems of food development pattern and management system from the behavior regulation, institution restraint and supervisor system, based on the basic economic theories as well as the

related principles such as environmental economy, system economy and information economy. It's important of the conclusions both theoretically and practically for solving the existent problems in food development and its management.

According to the background and relevant researches at home and abroad, the book defined the intension and extension of food safety scientifically, summarized the major factors that affects food safe and its development through the analysis of development experience and scientific and technical standards. In the part of economic analysis, from the behaviors related with the ensuring and promoting of food safety, the paper took empirical analysis of food production and consumption and its determinants, which carried out from two aspects: one is about the inputs and its efficiency which affect the production determining food safety directly or indirectly; the other is about the cognition of food safety, by purchasing and WTP (willingness to pay) of safe food of the consumers in town area. In the part of management study, the paper evaluated the system of market access of food safety from supply, demand as well as welfare influence, according to its enforcement in the overall manage system of our country, and probed how to standardize management system of food safe. Compared with the experiences inside and outside the country, the paper discussed the measures of safe food development and management of our country, and regional practices as the case of Nanjing. In conclusion, the paper put forward the measures to ensure the food safety of our country, and improve the standardize management system.

including strengthening resource environmental protection and efficient use through the food safe regulations and standard level, as well as the development of high quality food and effective operation of its management.

The paper is composed with introduction and 13 chapters. The major content of each part is as follows:

Introduction, the background of the research has been introduced, and the basic premises and hypothesis was addressed. The content and its structure have been made clear, as well as the technical route and major methods in the research.

Chapter 1, summarizing of the literatures and the theories. The literatures inside and outside the country have been retrospected. The relevant theories, including resource scarcism, efficiency allocation theory, and market rationalism, externality and information asymmetry with the market irrationalism have been summarized and analysed.

Chapter 2, the definition of food safe and its extension have been set forth. The course and major problems in the food development of our country were analyzed.

Chapter 3, factors influencing food safety and development of safe food was analyzed. Comparison of the domestic and international development of food safety, major factors of food safety have been addressed, including: environmental factor, technical factor, system factor, and perception factor.

Chapter 4, the production analysis of food safety. The major and crucial environmental factors that related to the production of food safety have been analyzed empirically.

According to the characteristic of the food production and the changes of farmer-household behavior in our country, with data concerning direct and indirect of food safety, empirical analysis has carried out for discovering the behavior influencing factors, and the economic and policy meanings of the results have been summarized.

Chapter 5, the consumption analysis of food safe. The food consumption and the changes of consumers' behavior in our country have analyzed empirically. With the investigation data, the factors affecting the purchase and willingness to pay (WTP) of safe food have been study empirically, and the economic and policy meanings of the results have been summarized.

Chapter 6, the domestic and international experiences of development and management of food safety have been discussed. Compared with the foreign experience of America, Germany and Japan as well as the domestic of Shenzhen, Shanghai and Heilongjiang, the advanced experiences have been summarized.

Chapter 7, study on the practice of development and management of food safety — the case of Nanjing. Through the case study, the development and management pattern of food safety has been set forth, and the train of thoughts of improving the development and management of food safety were addressed.

Chapter 8, the policy performance of food safety has been discussed. The management of food safe has been discussed from the organization, system and practice of the management of food production and consumption.

Chapter 9, the management system of food safety has been discussed. There are including market entrance system, traceability system, food recall system, risk analysis and alarm system, announcement mechanism of food safety information, and food safety credit system.

Chapter 10, food safety regulation and system have been compared. There are including the food safety regulation of CAC, SPS and TBT; as well as the food safety system of HACCP, ISO22000, EUREP-GAP, BRC, and SQF.

Chapter 11, approaches to reinforce food quality and safety management on Supply Chain have been probed. There are including how to achieve the quality and safety conformance among the links on the whole food supply chain, and the approaches of sciences integration and responsibilities integration in food quality and safety management.

Chapter 12, basic research of the quality and safety management of dairy chain in China has been carried out.

Chapter 13, the policy suggestions have been addressed. The study addressed the following policy suggestions based on the above analysis; one, reinforcing the regulations, standardizing and detecting system of food quality and safety; two, strengthening the standardize management of resource, environment and its related information; three, strengthening the management operation for the development of food safety; four, stimulate the mic-behavior rationally which determine food safety.

In the study, the research of food safety was extended to

both sides of production and consumption, and new technique has gone on new exploration. The possible innovations are following:

In the part of economic analysis, both the production efficiency and environment efficiency have been discussed, and the critical control points have been addressed. According to the changes of residents' consumption and farmer-households' production, factors influencing production and consumption behavior related to food safety have been analyzed empirically, and the economic and policy meanings of the results have been summarized.

In the part of management study, the management and the policy performance of food safety have been discussed, and the development and management pattern of food safety as well as the policy suggestions have been addressed.

In the collection and processing of data, the input efficiency of production model and WTP of consumption model were built up in the technical form of regression model and probit model, using the data from local price bureau and investigation on the spot.

The content and field that remains to further research include: first, by the limitation of data, the book was concentrate on the technical factors of production and regional consumers investigation, the overall situation or feature need to further carry out; second, by the restriction of practice and working experience, the development and management pattern of food safety was put mainly on the certain development and

management fields, such as green food, organic food and non-public pollution food, and server or urgent fields. The discussion on the more creative fields, such as the transformation of management system and the innovation of development pattern, remain to go on further on this foundation.

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