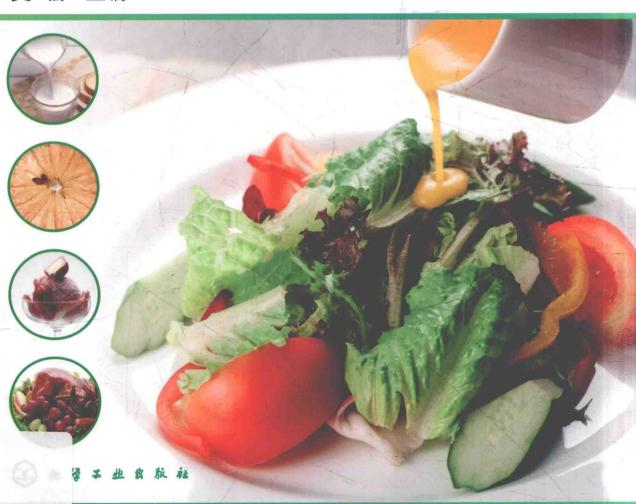


食品安全管理体系概论

吴 澎 主编





普通高等教育"十三五"规划教材

食品安全管理体系概论

吴 澎 主编 相启森 张一敏 杨 悦 副主编

Dongxiao Sun-Waterhouse





《食品安全管理体系概论》共8章,分别阐述了概论、国际食品安全管理体系认证、美国食品安全管理体系、欧盟食品安全管理体系、英国食品安全管理体系、日本食品安全管理体系、新加坡食品安全管理体系、中国食品安全管理体系等内容,对国内外相关先进的食品管理体系进行了系统介绍,相互借鉴,取长补短。

《食品安全管理体系概论》可作为高等院校食品科学与工程、食品质量与安全等相关专业的师生教学用书,也可作为相关科研、管理、技术人员参考用书。

图书在版编目 (CIP) 数据

食品安全管理体系概论/吴澎主编. 一北京: 化学工业出版社,2017.3 普通高等教育"十三五"规划教材 ISBN 978-7-122-28990-2

I.①食… Ⅱ.①吴… Ⅲ.①食品安全-质量管理体系-高等学校-教材 Ⅳ.①TS207

中国版本图书馆 CIP 数据核字 (2017) 第 020349 号

责任编辑: 尤彩霞

装帧设计:张辉

责任校对:王素芹

出版发行: 化学工业出版社(北京市东城区青年湖南街13号 邮政编码100011)

印 装:三河市延风印装有限公司

787mm×1092mm 1/16 印张 16½ 字数 416 千字 2017 年 5 月北京第 1 版第 1 次印刷

购书咨询: 010-64518888 (传真: 010-64519686)

售后服务: 010-64518899

网 址: http://www.cip.com.cn

凡购买本书,如有缺损质量问题,本社销售中心负责调换。

定 价: 39.80元

《食品安全管理体系概论》编写人员名单

主 编: 吴澎

副 主 编: 相启森 张一敏 杨 悦 王 颖

审: Dongxiao Sun-Waterhouse

参加编写人员 (排名不分先后):

吴 澎 山东农业大学食品学院

张一敏 山东农业大学食品学院

杨 悦 山东农业大学食品学院

唐文婷 青岛农业大学食品学院

许 瑞 河北科技师范学院

何述栋 合肥工业大学生物与食品工程学院

相启森 郑州轻工学院

翟娅菲 - 郑州轻工业学院

张清安 陕西师范大学食品工程与营养科学学院

刘芳迪 荷兰瓦格林根大学

朱兰兰 中国水产科学研究院黄海水产研究所

宫俊杰 龙大食品有限公司

齐 丽 中共泰安市委党校

Dr Carol Yongmei Zhang 英国皇家农业大学

杨凌宸 湖南农业大学

王 颖 黑龙江八一农垦大学

序言

Preface



地球的人口到 2050 年预计将超过 95 亿。 当前不断扩大的经济财富和购买力,更促使全球粮食生产和供应在未来 35 年内需要增加一倍,以满足消费者的需求。 这种大规模的全球粮食生产和贸易增加,在气候变化、可用淡水减少、能源枯竭、耕地竞争以及新食源性病原体出现的背景下,挑战着现有的从"农田到餐桌"整个供应链的食品安全管理体系和规范。 食品质量和安全是当今社会的核心问题,影响着人类健康、社会稳定和国家经济。 食品安全达到的程度不仅取决于法律框架,也取决于有效的公众教育。 不完善的食品安全法规会导致范围广泛的食品安全问题和消费者健康问题。 此外,消费者对饮食和健康关系意识的提高以及人类饮食习惯的变化带来了新型的、超越传统的、与质量相关的食品安全挑战。 这些挑战包括新的营养保障和安全问题以及使用包括生物技术和纳米技术等新技术来开发的食品配料、消费者食品、食品包装及食品接触材料的潜在危险。

自从 1860 年英国推出了食品法以来,食品法已稳步发展成为我们今天所拥有的具有较精密框架的法规,食品法的持续升级更新以满足日益复杂的全球食品供应链和不断演变的监管环境,也是可以预期的。 公共教育和社会参与也是成功食品链管理的关键因素。 及时了解全球食品发展趋势、食品安全管理的进展、提高公众食品安全意识和责任是全球协调一致的行动。 综上所述,本书旨在提高对人类现在和不久的将来将面临的食品安全问题的普遍认识。

作者们有针对性地定位了本书的食品安全教育的范畴和对象,把重点设立于食品安全和 质量规范以及对进入本领域的年轻科研人员和行业实习生的参考阅读。 本书是以出版一本 含有各国食品安全管理体系最新发展和规范以便于读者使用为目的的,因此,可以作为本科 生和研究生或者食品行业培训学员的教科书和教学资源。 本书还可以成为与食品相关的各 层次专业人员(包括来自企业的专业人员、分销商和利益相关者)有益的参考书籍。 本书分 为八章。 第一、二章概述了食品安全的基本概念、食品管理体系、风险分析和评估,包括 了 HACCP、ISO 22000、FSSC 22000 以及其他国际标准和认证体系。 第三~八章分别介 绍了美国食品安全管理体系、欧盟食品安全管理体系、英国食品安全管理体系、日本食品安 全管理体系、新加坡食品安全管理体系以及中国食品安全管理体系。 虽然本书选定的一些 食品安全系统并不能完全覆盖世界上所有国家,但是选取的这些国家和机构是解决全球食品 安全挑战的领先者,并对中国食品安全法律法规体系有一定的影响作用。 本书的重点内容 围绕着各国食品安全管理体系的五个主要单元进行详解: 1)食品法规; 2)食品管理; 3)食品 监管;4)实验室检测;5)信息、教育、交流和培训。 本书包含了各种监管和政策制定以及食 品安全管理和风险分析的相关食品安全活动的技术细节,注入了一些全球前瞻性对策和行动 措施的信息。 同时演示了与全球食品供应链环节相关的食品安全案例分析,以帮助读者对 构思和制定具体的食品安全管理模式的系统化过程取得更深入的了解。 由于所选取国家的 食品安全状况和管理系统是以类似格式来撰写,读者可以很容易地在战略、优势和不足上对 各国作比较。 本书反映了作者们对全球尤其是中国的食品安全管理系统未来发展的预期。

食品安全的科学知识不断更新,因此食品安全法规也必须不断地修正完善。 本书因此不可能涵盖全球食品安全管理的所有方面及其动态变化。 建议和鼓励读者通过查阅政府或食品安全主管部门的官方正式出版物以及食品安全专家编写的同行评审期刊和文章来不断更

新知识。 本书紧跟食品安全新发展启动了一个议题,如突出了采取跨学科方法解决食品安全问题的必须性,以及新技术包括生物技术和纳米技术对食品生产与消费和相关食品安全保障与检测的影响。

本书是由吴澎博士联合十四位来自不同院校及科研单位的作者编写、审校,并融入了我的建议和指导,我很高兴被邀请撰写本书的序言。 希望将来在吸取了反馈意见、新信息以及食品安全领域的新研究和新发展的基础上,能出版本书的后续版本,以便能进一步提升本书的价值和可用性。

The human population of Earth is projected to surpass 9.5 billion by 2050. Coupled with expanding economic wealth and purchasing power, global food production and supply over the next 35 years will need to double to satisfy consumer demand. Such a massive increase in global food production and trade in the context of climate change, reduction in available fresh water, fossil fuel depletion and competition for arable land, as well as the emergence of new foodborne pathogens, will challenge the existing food safety management systems and practices throughout the whole supply chain from farm to table. Food quality and safety are central issues in today's society, and impact human health, social stability and national economies. The degree of food safety attainable is not only determined by legislative frameworks but also by effective public education. Inadequate food safety legislation can result in a wide spectrum of food safety issues and health problems for consumers. Further, increasing consumer awareness of the relationship between diet and health, together with changes in human eating patterns, creates new challenges related to food safety beyond traditional quality-related safety issues. These challenges include new nutritional security and safety concerns, and the potential hazards associated with the use of novel technologies including biotechnology or nanotechnology for the development of food ingredients, consumer foods, food packaging and contact materials.

Since the introduction of the Food Adulteration Act in 1860, food laws have evolved steadily into the sophisticated framework of legislation we have today, and it is anticipated that constant upgrades will be needed to satisfy the increasingly complex global food supply chain and the continually evolving regulatory environments. Whilst the government of a nation retains the dominant position in food safety supervision, public education and social participation are also critical factors for successful food chain management. Timely understanding of global food development trends, advances in food safety management, and the raising public awareness and responsibility for food safety could become concerted actions. With a view to all of the above, the current book "Overview of Food Safety Management System" attempts to raise general awareness about food safety issues facing mankind now and in the near future.

There are a large number of food safety-related publications available in literature. The authors of this book have targeted food safety education, placing an emphasis on food safety and quality practices that support young researchers or industry interns entering this field. This book is intended to be a user-friendly compendium of up-to-date developments and practices of food safety management systems of certain countries, and as such, can be used as a textbook or teaching resource for undergraduate and postgraduate students or food industry trainees. The book also serves as a useful reference book for food-related professionals of all levels, including those from various companies, distributors and stakeholders. This book is organized into eight chapters. Chapters 1 and 2 provide an overview of the basic concepts of food safety, food management systems, risk

analysis and assessment including HACCP, ISO 22000, FSSC 22000 and other international standards and certification systems. Chapters 3-8 describe the food safety management systems of the U.S.A, European Union(EU), England, Japan, Singapore and China. Although the selected food safety systems do not fully cover all the countries, the nations or bodies selected are the frontrunners in addressing global food safety challenges and have significant influence on China's food safety regulatory framework. The book is focused on the five key components of a food safety management system: 1)Food regulations; 2)Food management; 3)Food supervision; 4)Laboratory testing; and 5) Information, education, communication and training. The book contains sufficient technical details on a wide range of food safety activities covering regulation and policy development to food safety management and risk analysis, whilst also incorporating some global forward looking strategies and actions. Food safety case studies are presented that demonstrate links in the global food supply chain and help readers to gain deeper understanding of a systematic process for conceptualizing and developing a specific food safety management model. A comparison on the strategies, strengths and weaknesses of different countries can easily be made from the similar style in which food safety status and management systems of the selected countries are presented. The book also reflects the authors' perceptions on the future development of global food safety management systems, especially in China.

Scientific knowledge underpinning food safety is continually improving and accordingly food safety legislation must also be constantly amended. This book therefore cannot possibly cover all aspects and the dynamic changes of global food safety management. Readers are encouraged to constantly update their knowledge by consulting official publications of governments or food safety authorities as well as peer-reviewed journals and trade articles prepared by food safety experts. This book starts a dialog on the need to keep up with new developments associated with food safety e.g. through highlighting the need to adopt interdisciplinary approaches for resolving food safety issues and the impacts of novel technologies including biotechnology and nanotechnology on food manufacturing and consumption and associated safety assurance and detection.

It is my pleasure to be invited to prepare the preface for this book. This book was prepared by Dr. Wu Peng in conjunction with fourteen co-authors from different institutions and research institutes, with my input and guidance. It is my hope that subsequent editions of this book will be published, that assimilate feedback, ongoing updates, new research and developments in the food safety field. In particular, developments in merging food safety and the nutrition framework could further enhance the usefulness of later editions of this book.

Dr.Dongxiao Sun-Waterhouse

Chair Professor of Shandong Agricultural University, China

Fellow of the New Zealand Institute of Food Science and Technology, New Zealand

	第一章 概论			001
,	Chapter 1 Introduction			001
	第一节 食品安全的概念和现状			001
	Concepts and current situation of food safety			
	一、食品的基本概念			001
	Basic concepts of food			
	二、食品安全的基本概念		**********	001
	Basic concepts of food safety			
	三、影响食品安全的危害因素			002
	Hazard factors of food safety			
	四、食品中有害物质的来源			003
	Sources of hazardous substance in food			
	五、食品安全问题的危害和影响		*****	004
	Harmfulimpacts of food safety issues			
	第二节 国家食品安全管理体系		**********	004
	National food safety management system			
	一、食品安全管理体系			004
	Food safety management system			
	二、国家食品安全管理体系	*******************		005
	National food safety management system			
	三、国家食品安全管理的原则和原理			007
	Guidelines and princeples of the national food			
	四、国家食品安全监管模式及发展趋势			008
	Supervision patterns and trends of the national			
	第三节 食品安全风险分析	**********		010
	Food safety risk analysis			
	一、食品安全风险分析概述			010
	Overviews of food safety risk analysis			
	二、食品安全风险评估	***************		012
	Food safety risk assessment			
	三、食品安全风险管理			016
	Food safety risk management			
	四、食品安全风险交流			019
	Food safety risk communication			
	第四节 食品安全事故应急管理			023
	r one party interest of the grant of the gra			
	一、食品安全事故			023
	Food safety incidents			
	二、国外食品安全事故应急管理经验			025
	Lessons of food safety incidents emergency ma			
	三、我国食品安全事故应急管理			027
	Food safety incidents emergency management	in china		

P-0-0	第二章 国际食品安全管理体系认证 Chapter 2 International certifications of food safety management system	033
	第一节 HACCP ···································	033
	The HACCP system	000
	一、HACCP 体系的产生及发展 ····································	USS
	Origin and development of HACCP system	000
	二、HACCP 体系的基本概念和原理 ····································	035
	The key concepts and principles of HACCP system	000
	三、HACCP 体系的应用 ····································	038
	Application of HACCP system	000
	四、HACCP 体系的认证 ····································	046
	HACCP system certification 第二节 ISO 22000	054
	The ISO 22000 system	0.0
	一、ISO 22000 食品安全管理体系的产生及发展 ····································	054
	Origin and development of food safety management system ISO 22000	
	二、ISO 22000 食品安全管理体系的关键要素 ····································	054
	Key elements of ISO 22000 food safety management system	
	三、ISO 22000: 2005 标准的主要内容	056
	Main contents of ISO 22000; 2005 standards	
	四、ISO 22000 与 HACCP 的比较 ······	058
	Comparison between ISO 22000 and HACCP 五、食品安全管理体系的认证······	060
	Food safety management system certification	
	第三节 FSSC 22000 ································	066
	The FSSC 22000 system	
	一、FSSC 22000 认证的背景及发展	066
	Background and development of the FSSC 22000 certification	
	二、公共可用规范 (PAS) 的主要内容 ·······	068
	Main contents of PAS	
	三、FSSC 22000 认证范围与标准	069
	FSSC 22000 certification scope and standards	
	四、FSSC 22000 认证流程 ·······	071
	Procedures of FSSC 22000 certification	
	第四节 其他食品安全管理体系认证	070
	Other Food safety management system certification	
	一、IFS 国际食品标准认证 ······	070
	IFS international food standard certification	
	二、BRC 全球食品安全标准认证	075
	British retail consortium global food safety standard certification	
	三、美国 SQF 1000/2000 食品质量安全标准认证	078
	USA SQF 1000/2000 food quality and safety standard certification	

第三章 美国食品安全管理体系	078
Chapter 3 Food safety management systems in the USA	010
第一节 食品安全现状与存在问题	078
Current situation and issues of food safety	
一、美国食品安全现状	078
Current status of food safety in the USA	
二、美国食品安全体系中存在的问题	079
Main issues within the USA food safety system in the USA	
第二节 食品法规与主要标准	081
Food regulations and standards	
一、食品安全法律体系的形成	082
The formation and progression of the legal framework for food safety	
二、美国食品安全的立法程序	082
The legislative process of food safety in the USA	
三、食品安全法律体系的主要内容	084
Main contents of the food safety legal framework	
四、美国食品安全法律治理的新发展—美国《食品安全现代法案》	084
New developments in food safety law governance in the USA	
五、美国食品安全技术法规体系现状	086
Current status of food safety technical and regulatory systems in the USA	
六、美国食品安全法规和标准体系的特点	086
Features of the USA food safety regulation and standard system	
七、食品安全法律体系的问题及改革	087
Existing problems and reform of the food safety legal system	
第三节 食品管理	087
Food management	
一、食品安全起始计划与食品安全管制系统	087
Food safety initial schemes and food safety control systems	
二、美国食品安全管理体系的基本架构	087
General framework of the USA food safety management system	
三、美国食品安全管理的主要方式	090
Main approaches to food safety management in the USA	
四、美国食品安全管理新动向	092
New trends of the USA food safety management	
第四节 食品监管	093
Food supervision	
一、食品安全监管体系	093
Food safety supervision system	
二、美国食品安全监管体系的基本原则	096
General principles of FSMS in the USA	
三、美国食品安全监管体系的特点	097
Features of FSMS in the USA	

F 62		
	五节 实验室检测	098
Lab	ooratory testing 一、政府实验室·····	
		098
	Government laboratory	
	二、第三方实验	100
	Third-party laboratory	
	六节 信息、教育、交流和培训	101
	ormation, education, communication and training	
-	一、美国食品安全体系的信息公开制度和交流制度	101
	The establishment of the USA FSMS information disclosure system	
-	二、美国食品安全教育体系	105
Т	The USA food safety education system	
3	三、食品安全培训	109
	Food safety training	
**	max 55800000000000000000000000000000000000	
E-100 H H	四章 欧盟食品安全管理体系 	110
	apter 4 Food safety management system in European Union(EU)	
	一节 欧盟食品安全及其管理体系的发展与现状	110
	velopment and current status of food safety management system in European Union	
-	一、欧盟食品安全概况	110
(Overview of food safety in European Union	
	二、欧盟食品安全管理体系的发展历程	111
	The development process of food safety management system in European Union	
3	三、欧盟食品安全管理体系的发展趋势	113
I	Development trend of EU food safety management system	
第二	二节 食品法规与主要标准	113
For	od regulations and major standards	
-	一、欧盟食品法规······	113
	Food regulations in EU	
	二、欧盟及其主要成员国的食品标准	122
	Food standards of EU and its members	
	三节 食品管理	125
	od management	
1.0	一、欧盟食品安全管理机构及其职责	125
	EU food safety management agencies and their responsibilities	
	二、部分成员国的食品管理····································	128
	Food management in some EU member states	1 4 5
2000	四节 食品监管·······	100
		123
	and supervision	100
	一、欧盟食品安全监管的特点	123
	Features of EU food safety supervision	10
	二、欧盟食品安全监管的具体制度	13

	The specific food safety supervision system in EU	100
	三、欧盟主要成员国的食品监管	132
	Food supervision in major EU member states	
	第五节 实验室检测	133
I	nspection or testing system	
	一、检测物质	134
	Test substances	
	二、欧盟食品安全实验室检测系统	134
	EU food safety laboratory inspection or testing systems	
\$15	第六节 信息、教育、交流和培训	135
I	nformation, education, communication and training	
	一、信息收集与分析	135
	Data collection and analysis	
	二、信息交流······	135
	Information exchange	
	三、安全教育与培训	136
	Safety education and training	
- 3	第五章 英国食品安全管理体系 	137
	Chapter 5 Food safety management systems in UK	
1	第一节 食品安全现状与存在问题	137
(Current status and issues of food safety	
	一、英国食品安全现状	137
	Current situation of food safety in UK	
	二、英国食品安全存在的问题	139
	Current food safety issues in UK	
	第二节 食品法规与主要标准	140
1	Food regulations and major standards	
	一、英国早期食品安全法律制度(13世纪开始)	140
	Early food safety legal system in UK	
	二、英国现行食品安全法律制度(1990年至今)	142
	Current food safety legal system (from 1990 to present) in UK	
	三、其他专门性法规	145
	Other specialized legislation	
	第三节 食品管理	146
	Food management	
	一、明确的权力主体······	146
	Clarify the power subject	
	二、完善的标准保障制度······	148
	Improve the standard security system	
	三、先进的风险分析及危机处理机制	150
	Advanced risk analysis and crisis management mechanism	

	第四节 食品监管	151
	Food supervision	
	一、英国食品安全监管体系的完善演化历程	151
	Evolution of food safety supervision system in UK	
	二、英国食品安全监管的有效措施	153
	Effective measures for food safety supervision in UK	
	三、英国食品安全监管的特色	154
	Characteristics of the food safety supervision in UK	
	第五节 实验室检测	156
	Laboratory testing	
	一、主要检测机构	156
	Major testing agencies and institutions	
	二、检测流程与结果质量分析	157
	Testing procedure and quality analysis of results	
	三、主要特点·······	157
	Main characteristics	
	第六节 信息、教育、交流和培训	158
	Information, education, communication and training	
	一、英国食品安全的信息可追溯系统建设及信息公开制度	158
	The establishment of the food safety traceability system and the information transpar	ency
	system in UK	
	二、英国食品安全教育现状	159
	Current status of food safety education in UK	
	三、高度重视食品安全的宣传和培训	160
	High attention to food safety publicity and training	
9	第六章 日本食品安全管理体系	
100	Chapter 6 Food safety management system in Japan	162
	第一节 日本的食品安全现状分析	162
	Current situation analysis of food safety in Japan	102
	一、日本"食品安全大国"背后的教训····································	162
	Lessons behind food safety empire of Japan	102
	二、当代日本食品安全管理体系概况	164
	Overviews of the current situation of food safety management system in Japan	1.0
	第二节 日本的食品法规和主要标准······	167
	Food regulations and major standards in Japan	
	- 、日本的食品法规体系	167
	Food regulation system in Japan	
	二、日本的食品标准体系······	173
	Food standard system in Japan	
	第三节 日本的食品安全管理·····	176
	Food safety management in Japan	

	一、日本食品安全的管理机构	176
	Food safety regulatory agencies in Japan	
	二、日本食品管理体系中各要素之间的关系	179
	Relationships among the critical factors of Japanese food management system	
	三、"从农田到餐桌"的食品安全全程管理和溯源制度	179
	Food safety management and traceability system covering the whole "from farm to	
	table" process	
	四、肯定列表制度	179
	Positive list system	
	五、日本的食品标签标识管理	180
	Food labeling management in Japan	
	六、农食产品品质等级的"身份证制度"	181
	"Identity card system" for grading of agricultural and food products	
	七、日本食品中放射性物质的安全管理	182
	Safety measures for radioactive materials in foods in Japan	
	八、日本食品安全事件惩戒措施	182
	Disciplinary measures for food safety incidents in Japan	
¥	四节 日本的进口食品安全监管	183
	nported food safety supervision in Japan	
	一、日本进口食品监管体制	183
	Supervisory system for imported food safety in Japan	
	二、日本进口食品监管计划及实施情况	184
	Imported foods monitoring programme and implementation in Japan	
	三、日本食品进口程序与要求	185
	Procedures and requirements for imported foods in Japan	
	四、日本对违规进口食品的处理措施·····	185
	Japan's measures to deal with illegal imported food	
	五、日本对进口水产品的安全监管	186
	Japan's food safety regulation on imported aquatic products	
	六、日本的进口动植物的检疫、防疫体系······	187
	Japan's inspection and quarantine system for imported animal and plant and epidemi	
	prevention system	
台	<u> </u>	187
	apan's food safety inspection or testing system	, 0,
J	- 一、日本食品检测的相关职能部门····································	188
	Functional departments relevant to food testing in Japan	,,,,,
	二、日本食品检测的内容······	188
	Inspection or testing contents in Japan	, 00
	三、日本食品检测的技术手段······	189
	Food testing technologies and techniques in Japan	100
4	Frood testing technologies and techniques in Japan 第六节 日本的食品安全教育····································	101
	5/ハヤ 日本的長四女王教育・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	131
	DODE NATELY CONFORMED IN TARRAG	

第七章 新加坡食品安全管理体系	192
Chapter 7 Food safety management system in Singapore	
第一节 食品安全现状与存在问题	192
Current status and issues of food safety	
一、新加坡食品安全现状	192
Current status of food safety in Singapore	
二、新加坡食品安全事件	192
Food safety issues in Singapore	
第二节 食品法规与主要标准	193
Food regulations and major standards	
一、新加坡食品标准法规的发展概况	193
Overview on the development of food standards and regulations in Singapore	
二、新加坡标准化管理部门	194
Standardized management departments in Singapore	
三、新加坡的标准法规现状	195
Current status of food standards and regulations in Singapore	
四、新加坡标准化体系的特点	196
Features of Singapore's standardized system	
Features of Singapore's standardized system 五、新加坡推出新食品安全认证标准····································	196
The release of new standard for food safety certification in Singapore	
第三节 食品管理	197
Food management	
一、食品安全管理	197
Food safety management	
二、食品安全立法体系	200
Food safety legal framework	
第四节 食品监管	201
Food supervision	
一、食品安全监管部门	201
Departments of food safety supervision	
二、食品安全监管法律体系	202
Legal framework for food safety supervision	
三、食品安全监管的特点	203
characteristics of food surety supervision	
第五节 实验室检测	206
Laboratory testing	
一、食品安全实验室检测系统	208
Food safety laboratory testing system	
二、食品安全实验室管理	208
Food safety laboratory management	
三、实验室服务	208
Laboratory services	

	弗六节 信息、教育、父流和培训	209
]	Information, education, communication and training	
	一、食品业在职培训计划	209
	Food industry job training programme	
	二、食品法规修订	210
	Food legislation revision	
	三、食品从业人员培训	210
	Training for food practitioners	
	四、媒体社区的宣传	211
	Propagation via media and in the community	
	五、与其他国家城市的合作交流	211
	Cooperation and exchanges with other countries and cities	
	六、推出 FINEST 食品计划 ······	211
	The launch of FINEST food plan	
	七、食品安全公共教育计划	211
	Food safety public education programme	
	八、新加坡食品安全专业	212
	Singapore food safety specialty 九、新加坡食品业的鼓励计划······	212
	Singapore food industry incentive program	
	十、新加坡使用"更健康选择标签"	213
	Healthier choice symbol	
	十一、普及转基因食品的公众教育	214
	Public education for genetically modified food	
	十二、部分规定和要求	214
	Some specified requirements	
las (a) -	第八章 中国食品安全管理体系	216
	Chapter 8 Food safety management system in China	
	第一节 我国食品安全现状与存在问题	216
	Current status and issues of food safety in China	
	一、食品数量安全方面:供应能力持续增强	216
	Food security in the aspect of quantity:continuous improvement in supply capacity	
	二、食品质量安全方面:食品质量不断提高,食品风险隐患依然严峻	219
	Food safety in the aspect of quality: continuous improvement of food quality with	food
	potential safety risks remaining severe	
	三、食品营养安全方面:营养保障和风险因素的挑战	222
	The aspect of food nutrition and safety: challenges on nutrition security and risk fac	tors
	四、食品安全综合评价	222
	Comprehensive evaluation of food safety	
	第二节 我国的食品法规与主要标准	223
	Food regulations and major standards in China	

一、我国食品法律法规体系	223
Food laws and regulations in China	
二、我国的主要食品标准	227
Major food standards in China	
第三节 我国的食品安全管理体系	231
Food safety management system in China	
一、食品安全管理体系的构成要素	231
Constituent elements of the food safety management system	
二、我国食品安全管理体系的现状及存在问题	232
Current status and issues food safety management system in China	
三、完善我国食品安全管理体系的对策	233
Strategies for improving the food safety management system in China	
第四节 我国的食品安全监管	237
Food safety supervision in China	
一、我国的食品安全监管体系	238
Food safety supervision system in China	
二、我国的食品安全监管机构及职能分配	239
Food safety regulators and function distribution in China	
第五节 我国食品安全实验室检测	239
Food safety laboratory inspection or testing in China	
一、我国食品安全检测机构	239
Food safety testing agencies and institutions in China	
二、我国现行食品安全监测体系存在的问题	241
Current issues of food safety monitoring system in China	
第六节 我国食品安全信息、教育、交流和培训	243
Food safety information, education, communication and training in China	
一、食品安全事件及不科学的言论危害	243
Food safety incidents and the negative impact of unscientific statements	
二、重视食品安全教育培训的普及	244
Attention to the popularity of food safety education and training	
三、构建食品安全教育宣传体系的意义	244
The significance of constructing the food safety education and publicity system	
四、加强食品安全宣传教育的对策建议	245
Proposals on the strategies for strengthening food safety publicity and education	
参 孝文献 ⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯	2/17