

# 中国

东北农业大学博士论丛

## 蔬菜种子产业发展研究

张永强◎著



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# 摘 要

中国是人口大国，蔬菜生产的地位十分重要，政府对蔬菜工作非常重视。蔬菜种子产业是蔬菜产业的源头，对蔬菜产业的发展有突出的影响。本书选择“中国蔬菜种子产业发展研究”为题进行深入分析研究。其主要的研究目的就是从业务链的角度出发，以国内外相关理论为基础，总结中国蔬菜种子产业发展历程、现状及问题，深入调查研究蔬菜种子育种、生产、供给、需求、市场营销管理、国际贸易、整个产业链的现状和存在的问题，剖析蔬菜种子生产、蔬菜种子的供给、蔬菜种子企业的市场营销、需求预测、蔬菜种子的国内外贸易状况以及蔬菜种子产业的优劣势等蔬菜种子产业发展的关键性影响因素，结合对中国蔬菜种子产业链的分析，蔬菜种子企业、蔬菜种子产业竞争力的实证分析，以及蔬菜种子生产供给和经营管理模式的实践，提出促进蔬菜种子生产供给模式及品种创新的相应对策，为保障中国蔬菜的安全生产、促进农民增收以及提高蔬菜种子产业的国际竞争力，更好地服务于蔬菜产业发展提供科学的理论指导和政策决策参考。

本书综合应用经济学、农业经济学、市场营销学、国际贸易学、计量经济学、蔬菜学、种子学的相关理论对中国蔬菜种子产业发展进行系统研究。以产业理论、供给与需求理论、比较优势理论、国际竞争力理论为基础，采用实证分析与规范分析相结合、动态分析和静态分析相结合、定性分析（SWOT 实证分析）和定量分析相结合（柯布—道格拉斯生产函数模型）、宏观分析与微观分析相结合、比较研究以及计量经济模型、统计工具、比

较分析等多种方法,对中国蔬菜种子产业发展现状、影响因素及其变化规律进行了实证分析,并提出了相关结论与建议。

本书系统地对中国种子产业、蔬菜种子产业发展历程、现状、存在的问题以及发展趋势进行了详尽的分析,同时系统地分析了蔬菜种子产业链的各个环节,并提出了蔬菜种子产业发展的良好机遇与面临的挑战。以蔬菜种子产业育种状况为视点,研究了世界先进国家蔬菜育种特点,分别以美国和荷兰为例,分析了欧美国家的育种动态;以日本和韩国为例,分析了亚洲蔬菜育种动态。在此基础上,从中国蔬菜育种的发展现状、存在的问题进行了详尽的论述,并提出了完善中国蔬菜种子科研育种的建议。以蔬菜种子生产的供给与需求为视点,首先从中国蔬菜生产的供给与需求出发,然后进一步阐述了世界蔬菜种子生产供给的组织形式、生产基地的分布、生产技术以及中国蔬菜种子生产的状况。利用柯布一道格拉斯生产函数模型对蔬菜种子生产函数及影响因素进行了分析,根据蔬菜生产和需求的状况及趋势,对蔬菜种子的市场需求进行了预测和分析,并提出了促进蔬菜种子供给和满足市场需求的对策。以中国蔬菜种子市场营销管理为视点,分析蔬菜种子市场的现状和特点,并对天津科润公司的市场营销策略进行实证分析,总结其成功之处。从市场营销学的4P角度,给中国蔬菜种子企业提出了营销管理建议。以中国蔬菜种子进出口贸易格局及国际竞争力为视点,从蔬菜种子的整体贸易状况入手,对蔬菜种子产品的出口、进口的品种、额度、国别等进行了分析,在此基础上以国际市场占有率、显示比较优势指数、贸易竞争指数等指标体系分析中国蔬菜种子产业的国际竞争力,并提出促进中国蔬菜种子国际贸易和提升国际竞争力的对策建议。最后,应用SWOT实证分析法对中国蔬菜种子产业的竞争力进行分析,在分析了世界种子产业和世界蔬菜种子产业的竞争态势的基础上,对中国蔬菜种子产业的内部优势和劣势、外部的机遇和威胁进行了SWOT实证分析,并提出了今后中国蔬菜种

子产业发展的战略选择。

在系统分析、研究的基础上提出了中国蔬菜种子产业发展的具体措施及对策。首先进行农业科研体制改革促进蔬菜育种,提出实施“保两头放中间”的政策措施,国家要确保蔬菜育种基础研究和农业技术中心的经费和项目的支持,而对转型企业的科研部门,应让其在市场经济中,与其他种子公司甚至国外的种业集团去竞争,国家只在政策上给予一定的支持;加强蔬菜育种的基础性研究和新技术的采用;加强蔬菜种子品种管理和区域试验,加强蔬菜种子产业的市场、技术管理,进一步严格品种的认证和审核制度等进行宏观政策的调控。在蔬菜种子的生产和供给模式上,扶持生产规模化、集约化、现代化的种子生产基地,鼓励企业间的兼并和重组来扩大规模;从蔬菜种子的消费群体来看,要提升农民的组织化程度,从而加大良种的推广。蔬菜种子企业在开拓国际市场方面,要积极开拓目标市场国,降低市场集中度,提升蔬菜种子产业的国际竞争力;合理选用三层战略组合,应重点实施兼顾整体;通过多种形式打造蔬菜种业的龙头企业,使蔬菜种子企业能有资金、有实力合理利用市场营销的相关理论,研究分析市场并做出正确合理的经营决策,从而促进中国蔬菜种子产业的发展。

本研究的创新点:

(1) 本研究通过对蔬菜种子产业的 SWOT 实证分析,提出了中国蔬菜种子产业发展的三层战略选择;以比较优势理论应用国际市场占有率、显示比较优势指数、国际贸易指数等指标体系进行了蔬菜种子国际竞争力分析;运用柯布一道格拉斯生产函数模型和时间序列预测模型对蔬菜种子产业进行了供给与需求分析。这些在目前国内对蔬菜种子产业发展的学术论文及相关研究中是鲜见的。

(2) 应用市场营销学的 4P 理论实证分析具有代表性的天津科润公司的市场营销管理,从而提出中国蔬菜种子企业市场营销

管理的参考建议，提出以市场需求为导向培育新品种，按照市场规律改革运行机制，建立完善的市场营销体系，从而促进蔬菜种子产业的整体发展。

(3) 至今关于蔬菜种子产业的研究仅从其中的某些环节或某些角度入手分析，如本研究从经济学角度，把蔬菜种子产业链作为一个整体的研究对象加以分析、系统研究还未见报道。本研究分析和研究蔬菜种子产业的发展规律，从蔬菜种子的育种科研、生产、供给、需求、国内外贸易、政策法规等诸多环节来研究蔬菜种子产业的发展，探寻蔬菜种子产业发展的内在规律、运作机理和发展趋势，形成了蔬菜种子产业的经济学研究理论框架。

**关键词：**蔬菜种子；产业；产业链；竞争力

# Abstract

China is country with a large population, the status of vegetable production is very important, and Chinese Government attaches great importance to the work of vegetables. The vegetable seed industry is the source of vegetable industry, which has the prominent influence to the vegetable industry's development. This article chooses the topic of "Research on China vegetable seed industry development" to conduct the thorough analytical study. The main purpose of the study is from the perspective of industry chain, takes the domestic and foreign correlated theories as the foundation, summarizes our country vegetable seed industrial development course, the present situations and the problems, investigates and studies thoroughly our country vegetable seed breeding, production, supplies, demand, international trade and the present situations and existing problems of the entire industrial chain's, analyzes vegetable seed production influencing factors, vegetable seed's supplies, demand predicting, vegetable seed's domestic and foreign trade situations, analyzes marketing strategy of vegetable seed business and the advantages and disadvantages of vegetable seed industry in our country and so on, which are the key influencing factors of China vegetable seed industry development, combining the analyzes of China's vegetable seed industry chain, vegetable seed companies, the empirical analyzes of competitiveness of vegetable seed industry,

as well as the supply of vegetable seed production and management mode of practice, and Proposing the corresponding countermeasures of promoting the supply patterns of vegetable seed production and the variety innovation, provides scientific theory instructions and the policy decision-making reference in order to protect the safety of China's vegetable production, improve farmers' income as well as international competitiveness of our country's vegetable seed industry and provide better service in the development of our country vegetable industry.

This article synthesis applied the correlated theories of economics, agricultural economics, marketing, international trade, econometrics, vegetables study and seed's study to give a systematic research to our country vegetables seed industrial development. This article takes the industrial theory, the supplies and the demand theory, the comparison superiority theory, the international competitiveness theory as foundations, using the empirical and normative analyzes, dynamic and static analyzes, qualitative (SWOT empirical analyzes) and quantitative analyzes (Cobb-Douglas production function model), macro and micro analyzes, as well as the comparative study econometric models, statistical tools, comparative analyzes, and so on. At last, this article has carried on the empirical analyzes of our country vegetables seed industrial development's present situation, the influencing factors and the change rule and proposed the related conclusions and the suggestions.

This article has carried on the exhaustive analyzes of the development course, the present situation, the existence questions as well as the trend of development of our country seed industry and the vegetables seed industrial, simultaneously systematic analyzes each link of vegetables seed industry chain, and proposed our country vegetables seed industrial development's good

opportunities with the challenges. This article takes the vegetables seed industry breeding condition as the viewpoint, and has studied the vegetables breeding characteristics of the world advanced countries, and has analyzed the European and American countries breeding tendency by taking the US and Holland as the example respectively, and has analyzed the Asian vegetables breeding tendency by taking Japan and South Korea as examples; based on this, this article has carried on the exhaustive elaboration from the present situations and the existence questions of our country vegetables breeding development and proposed the suggestions that consummate our country vegetables seed scientific & research breeding. This article takes the vegetables seed production's supplies and demands as viewpoints, first embarks from our country vegetables production's supplies and demand, then further elaborates the configuration of organization, the production base distribution and the production technology of the world vegetables seed production supplies as well as our country vegetables seed production condition. The article analyzes the influencing factors of the vegetable seed production function by using of Cobb-Douglas production function model, according to the situations and trends of vegetable production and demand, predicts and analyzes the vegetable seeds market demand, and proposes the countermeasures of promoting vegetable seeds supply and meeting the market demand.

The article takes the marketing management of our country vegetables seed market as the viewpoint, analyzes the present situations and the characteristics of our country vegetables seed market, and carries on the empirical analyzes to the Tianjin KeRun Company's market marketing strategy and summarizes its

success. From the 4P of marketing angle, the article puts forward the proposals of promoting Vegetables Seed Enterprise of Our country. The article takes our country vegetables seed import-export trade pattern and the international competitiveness as viewpoints, and carries on the analyzes of the vegetables seed product's export, the import variety, the specified amount, the nationality and so on from our country vegetables seed's overall trade situation, and based on this, analyses the international competitiveness of our country vegetables seed industry by using international market percentage, demonstration comparison index, trade competition index, and proposes the countermeasures and suggestions that promote our country vegetables seed international trade and international competitiveness. Finally, this article carries on the analyzes of our country vegetables seed industry's competitive power by using the SWOT analytic method, analyzes the world seed industry and its competition situation, and then proposes afterwards our country vegetables seed industrial development strategic choice.

At the conclusion of the full text, the article proposes the specific measures of promoting our country vegetable seed industry developing, first, carries on the agricultural scientific research organizational reform to promote vegetables breeding, proposes that implementation the policy measures of “protecting the both sides and releasing the middle”, the country must guarantee the vegetables breeding basic research and the agricultural technology center funds and the project support, but about the scientific research department which reformed to enterprise, the country should let it into the market economy, let it compete with the other seed company even overseas kind of industry

group, and only give it a certain policy support; strengthens the basic research and the new technical use of the vegetables breeding; strengthens the vegetables seed variety management and the regional test, strengthens the market and the technical management of the vegetables seed industry, further strict variety's authentication and the verification system and so on. In the vegetables seed's production and the supplies pattern, we should support the seed production base which is production formalization, intensified and the modernized, and we should also encourage the enterprise to annexate and reorganize to expand the scale; from the perspective of the consumer groups of vegetable seeds, we should raise the organization degree of farmers, thereby to increase the promotion of improved varieties. In the development international market aspect, the vegetables seed enterprise must develop the target market country positively, reduce the market concentration degree and promote the vegetables seed industry international competitiveness; the vegetables seed enterprise should select the three strategic combinations reasonably and should implementation the key properly and pay attention to the whole; Besides, making the Leading enterprise of vegetable seed's industry through many kinds of forms, enabling the vegetables seed enterprise to have the fund, the strength to use reasonably marketing correlated theories, to analyze the market and make the correct and reasonable operating decisions, thus promoting our country vegetables seed industry development.

This article's innovations are as follows;

(1) The article has proposed our country vegetables seed industrial development three strategic choice through the vegetables seed industry's SWOT empirical analyzes; on the basic of

compared superiority theory, the article has applicated the international market percentage, demonstration comparison superiority index and foreign trade index to carry on the vegetables seed international competitiveness analysis; the article has carried on the supplies and demand analyzes by using Cobb-Douglas production function model and the time series forecast model, Those in the current development of dissertation and in the related research of the vegetable seed industry are rare.

(2) The article has proposed the reference suggestions of our country Vegetables Seed Enterprises' marketing and management through empirical analyzes of the Tianjin KeRun's marketing and management, the article has proposed that we should cultivate the new variety by taking the market demand as the guidance, reform the operational mechanism according to the market rule, establishes the perfect marketing system, thus promoting the integral development of vegetable seed industry.

(3) At present, research on vegetable seed industry starts with from a certain angle analysis or some of the links, from an economic point of view, the study analyzed systemly the vegetable seed industry chain as a whole has not been reported. The article has studied the vegetables seed industry development from the angle of breeding scientific research, the production, supplies, demand, domestic and foreign trades, the marketing management of vegetables seed, inquires about the inherent laws, the operation mechanism and the trend of development of the vegetables seed industrial development and then forms the vegetables seed industry chain research theory frame.

**Key words:** Vegetable Seed; Industry; Industry Chain; Competitiveness

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