


宋雨河 © 著

NONGHU SHENGCHAN JUECE YU
NONGCHANPIN JIAGE BODONG YANJIU
——YI SHUCAI WEILI



农户生产决策与 农产品价格波动研究 ——以蔬菜为例

 中国农业出版社

农户生产决策与农产品价格波动研究

——以蔬菜为例

**A Study of Farmer's Production Decision
and Agricultural Products' Fluctuation:
A Case Study of Vegetables**

宋雨河 著

中国农业出版社

北 京

图书在版编目 (CIP) 数据

农户生产决策与农产品价格波动研究：以蔬菜为例/
宋雨河著. —北京：中国农业出版社，2018. 12

ISBN 978-7-109-25002-4

I. ①农… II. ①宋… III. ①蔬菜—生产决策—研究—中国②蔬菜—物价波动—研究—中国 IV. ①F326. 13

中国版本图书馆 CIP 数据核字 (2018) 第 281363 号

中国农业出版社出版

(北京市朝阳区麦子店街 18 号楼)

(邮政编码 100125)

责任编辑 赵 刚

北京印刷一厂印刷 新华书店北京发行所发行
2018 年 12 月第 1 版 2018 年 12 月北京第 1 次印刷

开本：880mm×1230mm 1/32 印张：6.5

字数：135 千字

定价：45.00 元

(凡本版图书出现印刷、装订错误，请向出版社发行部调换)

摘 要

目前我国处在向市场经济转轨的过程中，农户经济行为与市场的联系日益密切，农户逐步依靠对市场价格反应进行资源配置和生产决策，其生产决策过程变得更为复杂。尤其是随着我国市场开放度的不断提高，农户面临的市场范围越来越大，面对的不确定性越来越多。农户作出生产决策越来越受到到市场价格波动、市场信息的影响。理论上，一方面市场价格作为信号传递给农民后影响着农户下期的生产决策和行为，另一方面，农户的生产决策行为也影响着农产品价格的波动，农户生产什么、生产多少，影响着农产品的供给，进而影响农产品的价格。但现实中，若农户不能及时对市场变动做出反应并调整生产决策，就容易造成生产的“一窝蜂上”“一窝蜂下”局面，引起供给量的变动。再加上我国农户小规模、分散经营的特点，大量小规模农户生产决策的加总就引起市场上农产品总量的大幅变动，造成农产品价格的大幅波动。探讨农户的生产决策行为，分析农产品价格波动的规律及影响因素，研究农户生产决策与农产品价格波动之间的相互关系对缓解农产品价格波动、

指导农户生产实践等方面有重要的意义。

本研究选取了市场化程度较高、居民消费较广泛的果类蔬菜为研究对象,运用微观数据,深入剖析了农户的生产决策行为及影响因素,运用宏观数据分析了蔬菜价格波动的特点及影响因素,在此基础上探讨了农户生产决策与农产品价格波动之间的相互关系及影响。具体研究思路如下:第一,对本研究的理论基础如行为经济学理论、农户行为理论以及价格理论等进行梳理总结,为后文的分析提供理论依据;交代选择果类蔬菜为研究对象的原因及数据来源,并对农户调研数据样本的基本情况进行了描述性统计。第二,运用农户调研数据对农户的生产决策行为进行分析,重点关注农户在种菜过程中的规模调整行为、风险决策行为以及农户对市场信息的反应等,并运用有序 Probit 模型实证分析了影响农户蔬菜种植规模调整的因素。第三,运用宏观数据分析蔬菜价格波动的规律及蔬菜产业链各环节价格传导的特点及机理。第四,在构建农户生产决策分析框架的基础上,运用 Nerlove 供给反应模型实证分析农户种植面积对蔬菜价格的反应,测算蔬菜价格供给弹性,探讨价格因素对农户生产决策的影响。第五,分析农户生产决策对农产品价格波动的影响机理,从价格理论出发,分析农产品价格波动的基本因素,在此基础上,实证分析农户蔬菜供给决策对农产品价格波动的影响。第六,总结主要

研究结论，并提出相应的对策建议。

本研究得到的主要结论包括：

第一，通过对农户生产决策行为的分析发现，农户的风险态度总体上是风险中立或风险规避的，农户种植规模调整行为较为保守；农户在生产决策过程中对风险来源有一定认知，但在规避风险的方式方面缺乏认知；农户对市场价格信息的关注度较高，但农户运用市场价格信息做决策的能力还比较差。

第二，影响农户作出生产决策的因素有很多，包括决策者的个人特征、农户家庭特征、市场因素等，决策者的风险态度、运用市场信息的能力等对农户能否作出合理决策有重要影响。农户在做生产决策时不仅仅出于利润最大化的考虑，还会综合考虑家庭情况以及管理能力的限制。目前我国农户作出生产决策受到种植习惯的影响很大，农户往往保持着固有的习惯及邻里之间的一致性，但随着市场化的深入，价格因素对农户的生产决策也有显著的影响，但农户对价格信息的反应存在一定的滞后。

第三，蔬菜价格波动在产业链上、中、下游存在长期动态均衡关系，从长期来看，蔬菜价格波动在沿产业链各环节的传导过程中存在蔬菜生产资料价格（上游）、蔬菜零售价格（下游）对蔬菜生产价格（中游）的挤压现象，存在非对称性。

第四，单个农户生产决策虽然难以直接影响蔬菜市场波动，但由于农户决策的趋同以及我国农户小规模、分散经营的特点容易引起市场上蔬菜供给量的波动，对蔬菜价格的波动产生影响。实证结果表明，本期蔬菜供给量和上期蔬菜供给量方向相反，说明农户的生产决策具有不确定性。农户盲目扩大、缩小规模或逆向调节生产行为而引起蔬菜供给变动，进而影响价格的波动。需求因素不是引起蔬菜价格波动的主要因素，蔬菜的成本、效益对蔬菜价格波动都有非常显著的影响，驱动农户调整蔬菜供给，进而影响蔬菜的价格变动。

基于以上结论，本研究从政府、农户以及中介组织、龙头企业等层面提出了强化农产品价格预警服务、推进农业保险、加强对农户的培训与引导、提高农户素质、积极推进合作社发展以及鼓励订单农业等建议。

关键词：农户；生产决策；农产品；价格波动

Abstract

At present, China is undergoing the process of transition towards market economy, featuring increasingly closer connection between farmers' economic behaviors and market. In addition, farmers have begun to make resource allocation and production decision-making based on their response to market prices, leading to the more complicated process of production decision-making. In particular, in the wake of the continuously upgraded market openness degree in China, farmers are facing with wider market scale and more uncertainties, have been increasingly under the influence of market price fluctuation and market information when making production decision. Theoretically, on the one hand, market prices, as signals conveyed to farmers, can impact on their production decisions and behaviors of next period; on the other hand, farmers' decision-making behaviors have also influenced on the price fluctuation of agricultural products; the categories and amounts of farmers' production can impact on the supply of agricultural products, which will further impact on the prices of agricultural products. In reality, farmers' failure of responding to market changes in time and adjust their

production decisions may give rise to the situation of “producing and stop producing some agricultural products collectively”, bringing about the changes in supply quantity of agricultural products. Moreover, Chinese farmers feature small production scale and decentralized operation; the totaling of the production decisions of a large amount of small-scale farmers may cause the dramatic variations of total quantities of agricultural products in the market and substantial fluctuation in agricultural product prices. Therefore, it is of important significance to discuss farmers' production decision-making behaviors, analyze the rules and influential factors of price fluctuation of agricultural products, explore on the role played by the interrelationship between farmers' decision-making and price fluctuation of agricultural products on relieving price fluctuation of agricultural products and guiding farmers' production practice.

This paper selects fruit vegetables, featuring higher marketization degree and wider household consumption, as research objects; applies micro data to conduct an in-depth analysis on farmers' production decision-making behaviors and influential factors; adopts macro data to analyze the features and influential factors of price fluctuation of vegetables; and on this basis, explores the relationship between farmers' production decisions and price fluctuation of agricultural products as well as its influences. The concrete research idea is as follows: firstly, this paper combs and summarize theoretical bases, such as economic

theory, farmers behavior theories and price theories, to lay a theoretical foundation for the analysis in later paragraphs; this paper explains the reasons to choose fruit vegetables as my research object and data resources, and conduct the descriptive statistics on the basic information of farmers' survey sample; secondly, this paper adopts survey data to analyze farmers' decision-making behaviors, and focus on farmers' scale adjusting behaviors, risk decision behaviors and response to market information during vegetable growing process, and apply Ordered Probit Model to conduct the empirical analysis on the influential factors of farmers' scale adjusting for vegetable growing; thirdly, this paper adopts macro data to analyze the rules of vegetable price fluctuation and the features and mechanism of price transmission in various links of vegetable industrial chain; fourthly, on the basis of building the analysis framework of farmers' production decision-making, this paper adopts Nerlove Supply Response Model to conduct an empirical analysis on the response of farmers' planting area to vegetable prices, in order to measure and calculate the elasticity of supply of vegetable prices and discuss the influence of prices on farmers' production decisions; fifthly, proceeding from price theories, this paper conducts a theoretical analysis on the basic factors of price fluctuation of agricultural products, and based on this, this paper conducts an empirical analysis on the influence of farmers' vegetable supply decisions on price fluctuation of agricultural products; fifthly, this paper summarizes the major research conclusions

and propose corresponding countermeasures and suggestions.

The major conclusions of this research are as follows:

Firstly, the analysis on farmers' production decision-making behaviors has shown that farmers' attitudes toward risks are risk neutral or risk aversion in general, and farmers' adjustment behaviors of planting scale are relatively conservative; farmers are aware of risk resources to some extent during the process of production decision-making, however, they are lack of cognition of the ways for risk aversion; farmers pay great attention of market price information, yet with relatively weaker abilities to apply market price information into decision-making.

Secondly, there are numerous factors that influence on farmers' production decision-making, including decision-makers' personal characteristics, family characteristics and market factors. Whether farmers can make rational decisions are under the significant influences of their attitudes toward risks and abilities to apply market information. When making production decisions, farmers not only take profit maximization into consideration, but also take their family situations and limits of management abilities into account. At present, Chinese farmers have been under great influences of their planting habits, when making production decision. They usually maintain their traditional habits and the consistency with their neighbors. However, along with the deepening marketization, price can also be a prominent influential factor

for farmers' production decision-making; contrarily, farmers' response to price information is hysteretic.

Thirdly, there is a long-term dynamically balanced relationship of vegetable price fluctuation in industry chain. In the long run, during the conductive process of vegetable price fluctuation in various links of industrial chain, vegetable production prices (midstream) have been under the press of prices of vegetable means of production (upstream) and vegetable retail prices (downstream), namely the asymmetry.

Fourthly, although one farmer's vegetable production decisions cannot directly influence vegetable market, all the farmers who have nearly the same decisions might cause supply fluctuation and have significant impact on vegetable price fluctuation. The empirical analyze shows the opposite direction between vegetable supply quantities of current period and prior period, this means the uncertainties of farmers' production decision-making. Farmers' blind expansion and downsizing or retro-regulation behaviors may lead to the change in vegetable supply, and further influence on price fluctuation. Demand factors are not the principal ones triggering vegetable price fluctuation. Vegetable costs and profits also exert great influences on vegetable price fluctuation, driving farmers to adjust their vegetable supplies and further influencing on vegetable price fluctuation.

Based on the conclusions mentioned above, this paper proposes suggestions from levels of governments, farmers,

intermediary organizations and leadership enterprises, including strengthening the price warning service of agricultural products, promoting agricultural insurance, strengthening trainings and instructions for farmers, upgrading farmers' qualities, positively prompting the development of cooperatives and encouraging contract farming.

Key words: Farmers; Production decision-making; Agricultural products; Price fluctuation

目 录

摘要

Abstract

第一章 导论	1
1.1 研究背景与意义	1
1.1.1 研究背景	1
1.1.2 研究意义	4
1.2 研究现状与评述	5
1.2.1 国外研究现状	5
1.2.2 国内研究现状	8
1.2.3 国内外研究进展评述	23
1.3 研究目标与内容	24
1.3.1 研究目标	24
1.3.2 研究内容	25
1.4 研究方法与技术路线	27
1.4.1 研究方法	27
1.4.2 技术路线	29
1.5 研究特色与创新说明	29
第二章 理论基础	31
2.1 概念界定	31

2.1.1 农户	31
2.1.2 农户决策行为	31
2.2 理论分析	32
2.2.1 行为经济学理论	32
2.2.2 农户行为理论	36
2.2.3 价格理论	39
2.2.4 价格传导理论	42
2.3 本章小结	44
第三章 研究对象选择及数据来源	46
3.1 研究对象及原因说明	46
3.2 数据来源	47
3.2.1 农户生产决策相关数据	47
3.2.2 农产品价格波动相关数据	49
3.3 调研样本基本情况	50
3.3.1 决策者基本特征	50
3.3.2 农户家庭基本特征	53
3.3.3 农户蔬菜种植基本情况	55
3.4 本章小结	62
第四章 农户生产决策行为分析	64
4.1 农户对市场价格信息的反应	64
4.1.1 农户蔬菜市场价格信息获取渠道	65
4.1.2 农户对蔬菜价格信息的关注与运用	66
4.2 农户蔬菜种植风险决策行为	68
4.2.1 农户的风险态度	69
4.2.2 农户对风险的认知	71
4.2.3 农户对风险的规避	73

4.3 农户蔬菜种植规模调整	75
4.3.1 农户蔬菜种植规模调整及种植意愿描述性统计	76
4.3.2 农户蔬菜种植规模调整影响因素的实证分析	81
4.4 本章小结	94
第五章 农产品价格波动分析	97
5.1 蔬菜价格波动分析	98
5.1.1 蔬菜产业链各环节价格指标选择	98
5.1.2 蔬菜价格波动周期分析	99
5.2 蔬菜价格纵向传导机制分析	100
5.2.1 蔬菜价格纵向传导分析模型选择	100
5.2.2 蔬菜价格纵向传导分析	101
5.3 本章小结	116
第六章 农产品价格波动对农户生产决策的影响	118
6.1 影响农户生产决策的因素	118
6.1.1 内部因素	119
6.1.2 外部因素	123
6.2 价格因素对农户蔬菜种植决策影响的实证分析	125
6.2.1 分析框架和模型构建	125
6.2.2 变量选取及说明	128
6.2.3 模型结果	129
6.3 本章小结	133
第七章 农户生产决策对农产品价格波动的影响	135
7.1 农户对农产品价格波动的影响机理分析	136

7.2 影响蔬菜价格波动因素的理论分析	139
7.2.1 需求因素	140
7.2.2 供给因素	140
7.2.3 其他因素	144
7.3 农户蔬菜供给对蔬菜价格波动影响的实证分析 ...	146
7.3.1 模型设定	146
7.3.2 变量选取	147
7.3.3 模型结果分析	149
7.4 本章小结	152
第八章 研究结论与政策建议	155
8.1 研究结论	156
8.1.1 农户果类蔬菜生产基本情况总结	156
8.1.2 农户生产决策行为特点	156
8.1.3 影响农户生产决策行为的因素	158
8.1.4 农产品价格波动机制及因素	160
8.2 政策建议	162
8.2.1 强化农产品市场信息服务, 加强对农户合理 利用价格信息的引导	162
8.2.2 积极发展农业保险, 规避农业经营风险	163
8.2.3 提高农户自身素质, 增强农户决策能力	164
8.2.4 发挥农村中介组织作用, 为农户与市场提供 良好纽带	165
8.3 有待进一步研究的问题	166
参考文献	168
附录	180