Scientific Research Publishing

Chinese Studies, 2026, 15(1), 56-75
https://www.scirp.org/journal/chnstd
ISSN Online: 2168-541X
ISSN Print: 2168-5428

Exploring Research on China's Grand Food Concept (2012 - 2025): Evolution, Hotspots, and Trends

Linmei Wang[1], Man Zhang[1], Longlong Duan[2*]

[1]School of Marxism, Sichuan University, Chengdu, China
[2]School of Economics, Sichuan University, Chengdu, China
Email: dll2007@scu.edu.cn

How to cite this paper: Wang, L. M., Zhang, M., & Duan, L. L. (2026). Exploring Research on China's Grand Food Concept (2012 - 2025): Evolution, Hotspots, and Trends. *Chinese Studies, 15,* 56-75.
https://doi.org/10.4236/chnstd.2026.151004

Received: December 4, 2025
Accepted: January 10, 2026
Published: January 13, 2026

Abstract

Based on the China National Knowledge Infrastructure (CNKI) database, this study employs CiteSpace software to conduct visualization and bibliometric analysis of 756 research papers related to the "Grand Food Concept" published between 2012 and 2025. It systematically examines publication trends, core authors, research institutions, keyword clusters, and the evolution of research hotspots within this field. Findings reveal that publication volume on China's Grand Food Concept has consistently increased, with research predominantly led by agricultural universities and research institutions, though collaboration among authors and institutions remains relatively loose. Further analysis indicates that studies primarily focus on policy interpretation and theoretical development, with core hotspots centered on four themes: the Grand Food Concept and food security, diversified food supply, building an agricultural powerhouse, and rural revitalization. Based on these findings, this paper proposes strengthening systematic thinking, promoting interdisciplinary collaboration, and integrating diverse research methodologies to advance the theoretical depth and practical application of China's new era food system perspective.

Keywords

New Era, Grand Food Concept, Food Security, CiteSpace, Visualization Analysis

1. Introduction

The Grand Food Concept is an overall modern agricultural development strategy that takes ensuring food security as the cornerstone, pursues the comprehensive and multi-channel development of food resources as the pathway, and aims to

build a diversified, high-quality, and sustainable food supply system. "The people cannot live without grain, and governance cannot be stable without agriculture." Food constitutes the most fundamental means of subsistence for the populace and serves as a strategic resource for national security and development. While traditional food security strategies made significant contributions to resolving China's food and clothing shortages, the existing food security paradigm struggles to meet the people's aspirations for a better life amid rising incomes and evolving consumption patterns, necessitating urgent reconstruction. Against this backdrop, the Party and the state, grounded in the new stage of development and deeply insightful into the realities of the new era, have conducted systematic deliberations and innovative deliberations across multiple dimensions—including the sources, variety, supply, consumption, and safeguarding of the people's food—proposing the concept of a comprehensive food perspective. This perspective explores, from a food-centric viewpoint, how to transition from the traditional "grain-centric view" to a modern "food-centric view" in the new era, aiming to enhance the quality and efficiency of food supply and meet people's evolving food consumption demands.

Since the 18th CPC National Congress, the Party and the state have placed increasing emphasis on food security and food-related work, with attention to these issues steadily rising. On March 6, 2022, during a joint session with members of the CPPCC National Committee from the agriculture sector and the social welfare and social security sector, General Secretary Xi Jinping emphasized the need to "establish a broad perspective on food". The 2015 Central Rural Work Conference proposed "establishing a broad perspective on agriculture and food", and the 2016 Central Document No. 1 formally incorporated "establishing a broad perspective on food" as a key component of advancing agricultural supply-side structural reform. In 2017, President Xi Jinping emphasized at the Central Rural Work Conference: "The public's food demands have become more diverse, requiring us to shift our mindset and embrace a comprehensive perspective on agriculture and food. We must draw calories and protein from farmland, grasslands, forests, and oceans, as well as from plants, animals, and microorganisms, developing food resources through comprehensive and multi-channel approaches." The "comprehensive food concept" aims to better meet the people's aspirations for a better life. While ensuring grain supply, it guarantees effective provision of various foods such as meat, vegetables, fruits, and aquatic products, emphasizes balanced dietary nutrition, and shifts from coarse to refined and back to coarse foods, with quantities fluctuating from less to more and back to less. Staple foods are becoming less "staple", while non-staple foods are becoming less "non-staple", marking a transition from "eating enough" to "eating well" and "eating healthily". The "comprehensive food perspective" reflects the continuous improvement in the living standards of the Chinese people and aligns with the evolving trends in their dietary structure. It embodies China's consistent and continuously enriched strategic thinking, progressing from food security and food safety to the broader concept of a "comprehensive food perspective".

2. Materials and Methods

To leverage domestic academic resources for research on the grand food concept, this paper systematically reviews and comparatively analyzes relevant literature in China's grand food concept field using Chinese journal data from the China National Knowledge Infrastructure (CNKI) database and knowledge graph visualization tools. The analysis focuses on publication trends, core authors, research hotspots, and frontier directions of articles on the grand food concept since the new era. By synthesizing domestic research trends and current status, this study offers new perspectives to enrich the theoretical research on the grand food concept and lays the foundation for further in-depth investigations.

2.1. Data Sources

For Chinese literature, relevant Chinese documents from the CNKI database were selected as domestic academic journal samples. Utilizing CNKI's advanced search function, the search was conducted on June 17, 2025, with the theme "Grand Food Concept", employing advanced search parameters and covering the time span from 2012 to 2025. When searching using the keyword "Grand Food Perspective" and limiting journals to "Peking University Core" and "CSSCI", it was found that research on the Grand Food Perspective has been scarce since 2012, with only 181 articles published. To ensure a more comprehensive and objective study, strict limitations on journal sources were removed, and all qualifying journal articles from CNKI were included in the analysis. Therefore, the search was conducted on June 17, 2025, using the advanced search method. The search terms were "subject OR abstract/keywords: Grand Food Concept", with a time span from 2012 to 2025 and source category set to "All Journals". After excluding invalid and duplicate documents, a total of 756 valid documents were obtained.

2.2. Research Methods

2.2.1. Bibliometric Analysis Method

Bibliometric analysis is a quantitative research method grounded in mathematics, statistics, and computer science. It systematically analyzes external characteristics of scholarly literature-such as publication volume, authors, keywords, citations, publication dates, and journal sources-to reveal developmental patterns, research hotspots, academic influence, and evolutionary trends within specific disciplines or fields. External data characteristics of literature, such as citation frequency and keyword co-occurrence, can indirectly reflect the intrinsic connections and developmental dynamics within academic research. This study employs bibliometric analysis to quantitatively examine annual publication volumes, authors, institutions, countries, publications, and keyword frequencies in domestic and international literature related to the concept of the Grand Food Concept. This aims to reveal research trends, hotspots, and network structures within this academic domain.

2.2.2. Knowledge Graph Visualization

Knowledge graph visualization analysis is a technique that presents knowledge graphs through graphical, interactive representations while employing data analysis methods to uncover hidden information. By transforming abstract "relational data" into concrete visualizations, it enables researchers to rapidly identify core connections. By illustrating the research trajectory within a field, it enables researchers to swiftly identify research hotspots and explore new avenues for inquiry. Visualization facilitates rapid recognition of research trends and hotspots, deepens understanding of the Big Food Perspective, and provides intuitive evidence for policy formulation and research.

CiteSpace is a tool for scientific bibliometric analysis and visualization, primarily generating knowledge maps by analyzing academic literature data to help researchers identify research hotspots, trends, and field structures. This study employs CiteSpace 6.3.R1 for text-based measurement analysis with the following parameter settings: time span from January 2012 to June 2025, time slice of 1a,where "1a" indicates that the literature data is divided into annual time slices. This setting allows for a more precise capture of the annual evolution of research hotspots. The node types including co-authors, institutions, and keywords. The clipping method utilizes pathfinding network algorithms combined with comprehensive network clipping strategies to enhance the structural coherence and readability of generated maps. Based on the characteristics of the literature, CiteSpace software was used to generate co-occurrence maps for authors and institutions, keyword co-occurrence, clustering, emergence, and timeline maps. These visualizations intuitively display research progress, hotspots, and future trends in China's food security field. Additionally, classic literature was selected for detailed reading based on the analysis results to further understand the research hotspots and development trends in the food security field from 2012 to 2025.

3. Results and Analysis

3.1. Basic Literature Research Overview

3.1.1. Annual Publication Volume Analysis

The publication trends of research literature help understand the characteristics of publications on a given topic over time. This study selected journal articles related to the concept of a comprehensive food system from the CNKI database to obtain the annual publication patterns in this field.

Domestic publication trends show a gradual increase since 2015, coinciding with the Central Rural Work Conference's inaugural formal proposal at the national level to "establish a broad perspective on agriculture and food". In February 2016, the Ministry of Agriculture proposed: "Based on China's resource endowments and grain supply-demand dynamics, and in response to new trends in consumer upgrading, we must establish a broad food perspective and develop food resources comprehensively through multiple channels. It is hereby formally decided to develop potatoes as a staple food product for industrialization." (Qiao,

2016). Consequently, academic research on the broad food perspective increased, resulting in a minor peak in domestic publications in 2016. Starting in 2021, domestic publications on the topic rose significantly, peaking in 2024. This surge was primarily driven by the Fourth Session of the 13th National People's Congress in 2021, which adopted the resolution on the 14th Five-Year Plan and the Long-Range Objectives Through 2035. For the first time, the implementation of the food security strategy was formally incorporated into the national five-year development plan (Liu & He, 2023). The 20th CPC National Congress in 2022 provided crucial guidance, planning, and requirements for the Grand Food Concept, emphasizing: "Establish a Grand Food Concept, develop facility agriculture, and build a diversified food supply system." During a joint session with CPPCC members from the agriculture sector and the social welfare and social security sector on March 6, 2022, General Secretary Xi Jinping stressed the need to "establish a Grand Food Concept". Driven by this national strategic vision, publication volume in China's Grand Food Concept field has steadily increased. By 2024, annual publications in this field have reached a new peak, making it a hot topic in academic research.

3.1.2. Key Authors and Collaboration Analysis

Figure 1 displays the collaboration network of authors researching the grand food concept in Chinese journals from 2012 to 2025.Analysis of the domestic author network reveals N = 260 nodes, E = 193 edges, and an overall network density of 0.0057. This forms a small-scale collaborative cluster centered around Fan Shenggen, Long Wenjin, Ding Shengjun, and Zhong Yu, while other authors remain relatively dispersed and less closely connected in collaborative research.

Overall, these scholars have developed distinct research directions around the Grand Food Concept theme, building their own collaborative networks within these directions. Some overlap exists between these networks, reflecting both the depth of scholars' research within their respective fields and the clear connections among them. Within China's domestic research landscape, both the collaboration density and node connectivity in the network diagram indicate a generally weak collaborative network effect among scholars. Future efforts should focus on strengthening cross-disciplinary, cross-regional, and cross-institutional collaboration and academic exchange to unlock greater potential for scholarly cooperation.

Regarding internal scholar collaboration dynamics, the top 10 authors by publication volume in New Era Food Security research (as shown in Table 1) occupy central positions in the collaboration network. Among domestic researchers, the top three authors by publication volume are Fan Shenggen (14 papers), Long Wenjin (8 papers), and jointly ranked third by Ding Shengjun (6 papers), Chen Mengshan (6 papers), and Zhong Yu (6 papers) tied for third place. Key topics include: consolidating the foundation of food security on all fronts (Wei et al., 2022), promoting national nutrition, health, and sustainable development (Fan & Zhang, 2023), building a diversified food supply system (Long & Fan, 2023),

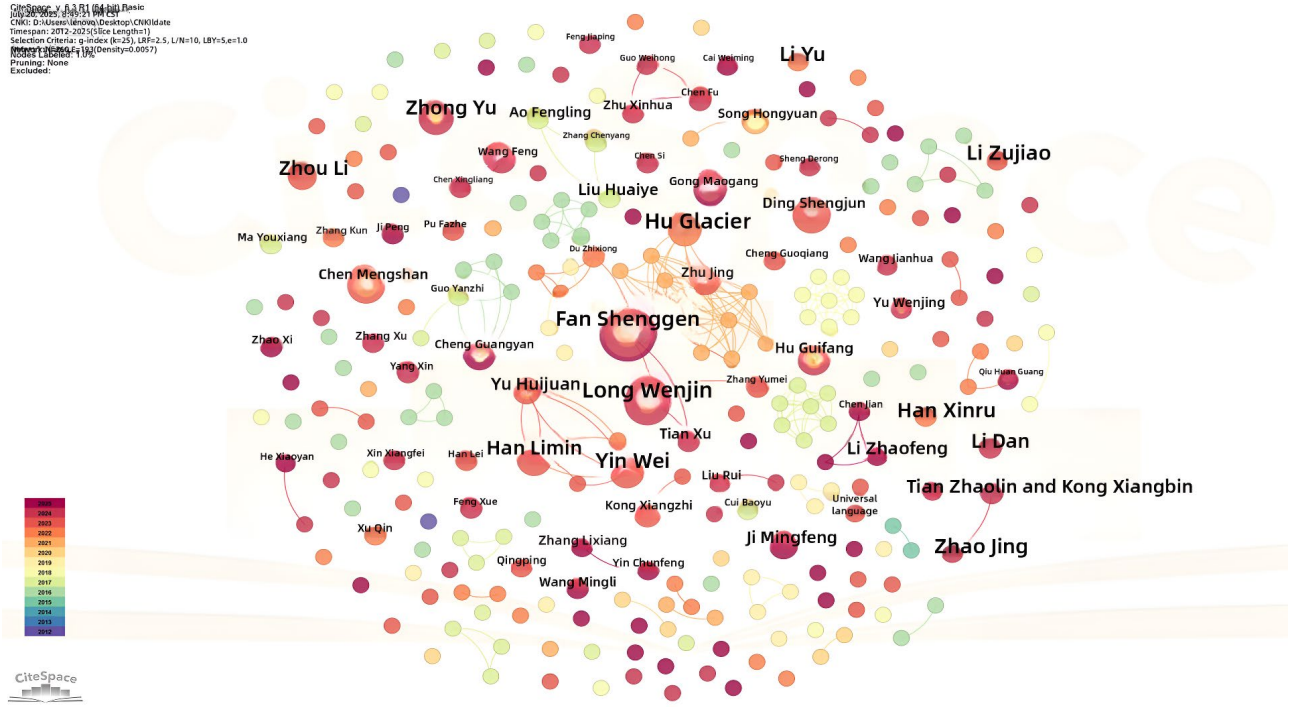

Figure 1. Collaboration network map of domestic research authors, 2012 - 2025.

Table 1. Publication volume and most-cited literature by core authors domestically.

Source	Rank	Author	Publications	Most Cited Publication (Publication Year, Citation Count)
CNKI	1	Fan S	14	Accelerating the Formation of a New Development Pattern and Promoting High-Quality Development in Agriculture and Rural Areas (2022, 158)
	2	Long W	8	Challenges and Improvement Strategies for Agricultural Industrial Chain Resilience Under the Grand Food Concept (2023, 58)
	3	Ding S	6	Objective Basis, Far-Reaching Significance, and Implementation Measures for the Grand Food Concept (2023, 29)
	4	Chen M	6	Putting the Grand Food Concept into Practice: Challenges, Goals, and Pathways for China's Food System Transformation (2023, 36)
	5	Zhong Y	6	From Food Security to the Big Food Perspective: Dilemmas and Pathways (2022, 65)
	6	Han L	5	China's Food and Nutrition Security in the Context of Land-Sea Integration (2022, 22)
	7	Zhu J	4	Agricultural Trade and China's Food Security in the Context of a Broader Food Perspective (2023, 67)
	8	Hu G	4	The Grand Food Perspective: A New Concept Guiding Agricultural Development in the New Era (2022, 4)
	9	Gong M	4	The Grand Food Perspective: Analysis of the Current Status and Issues in R&D Capabilities of China's Seed Enterprises Under Food Security (2023, 28)
	10	Cheng G	4	Implementing the Grand Food Perspective: Challenges, Objectives, and Pathways for China's Food System Transformation (2023, 36)

challenges and enhancement strategies for agricultural industrial chain resilience under the grand food perspective (Zhang, and Long, 2023), the objective basis and

significance of the grand food perspective (Ding, 2023), the transformation of China's agri-food system (Chen et al., 2023), and the grand food perspective and food security (Zhong & Cui, 2022).

3.1.3. Analysis of Key Research Institutions and Collaborations

This study employs CiteSpace software to analyze institutional collaboration networks, assessing the intensity of research collaborations. By combining this with institutional publication counts, it evaluates the contribution levels of domestic institutions to the field of the Big Food Concept. Furthermore, it compiles the publication volumes and rankings of each institution from 2012 to 2025.

The domestic research institution collaboration map is shown in **Figure 2**. With N = 222 nodes and E = 132 edges, the overall network density is Density = 0.0054, indicating numerous research institutions in this field but relatively loose interactions.

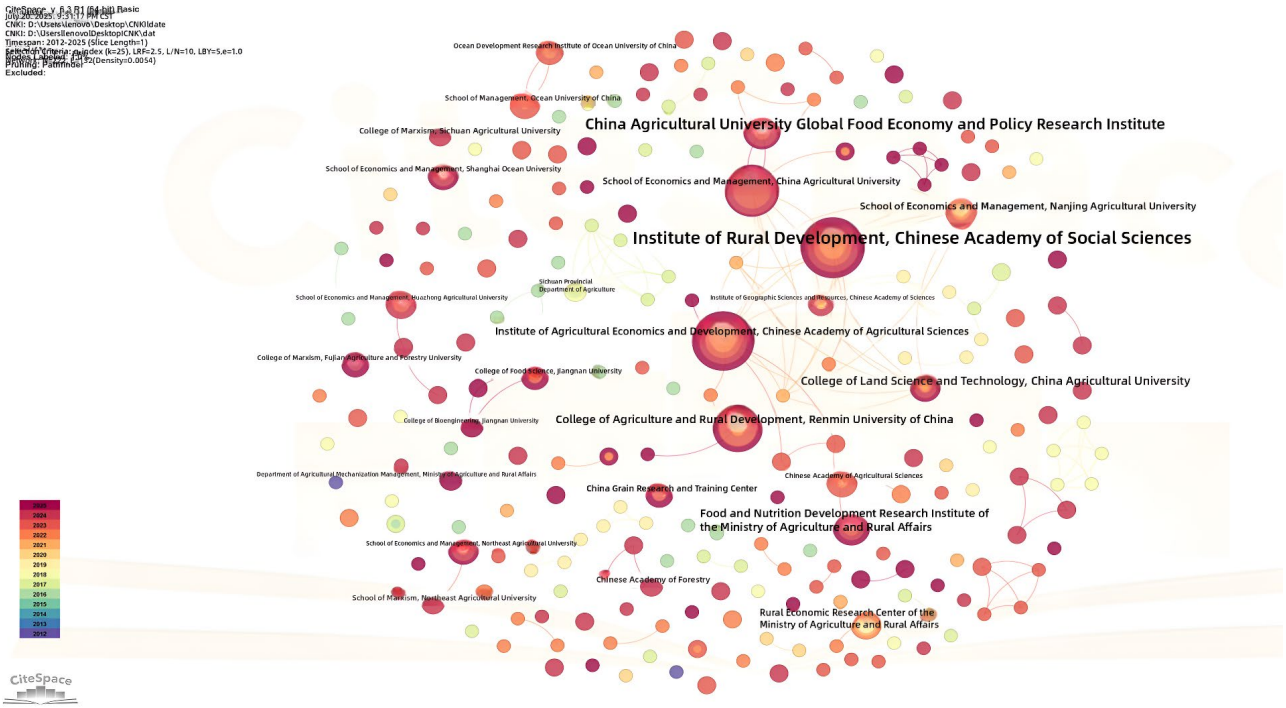

Figure 2. Domestic research institution collaboration network, 2012 - 2025.

Among domestic research institutions, agricultural universities and research institutes dominate the field of the Grand Food Concept. First, in terms of publication volume, the top three institutions are the Institute of Rural Development at the Chinese Academy of Social Sciences (24 papers), the Institute of Agricultural Economics and Development at the Chinese Academy of Agricultural Sciences (20 papers), and the College of Economics and Management at China Agricultural University (16 papers). These form the core cluster of institutions in this field, representing the primary contributors to research and literature on the Grand Food Concept.

The top ten research institutions in terms of domestic paper publications are

listed in Table 2. Regarding centrality, only the Institute of Rural Development at the Chinese Academy of Social Sciences and the Institute of Agricultural Economics and Development at the Chinese Academy of Agricultural Sciences achieved a centrality of 0.01. This indicates sparse collaboration among domestic research institutions, with no close cooperative relationships established between them, resulting in fragmented and independent research efforts. In summary, domestic research institutes are the main research force in the field of the Grand Food Concept. Although university colleges participate in research, they have not formed deep cooperative relationships.

Table 2. Top 10 domestic research institutions by publication volume.

Rank	Domestic Institution Name	Centrality	Publication Frequency	Start Year
1	Institute of Rural Development, Chinese Academy of Social Sciences	0.01	24	2016
2	Institute of Agricultural Economics and Development, Chinese Academy of Agricultural Sciences	0.01	20	2021
3	College of Economics and Management, China Agricultural University	0	16	2021
4	School of Agriculture and Rural Development, Renmin University of China	0	14	2014
5	Global Food Economics and Policy Institute, China Agricultural University	0	8	2022
6	Institute of Food and Nutrition Development, Ministry of Agriculture and Rural Affairs	0	8	2023
7	Ministry of Agriculture and Rural Affairs Rural Economic Research Center	0	5	2018
8	College of Economics and Management, Nanjing Agricultural University	0	5	2020
9	College of Land Science and Technology, China Agricultural University	0	5	2021
10	College of Management, Ocean University of China	0	5	2022

3.1.4. Journal Source Analysis

The top 10 domestic journals in terms of publication volume on the concept of the Grand Food Concept are shown in Table 3.

Table 3. Top 10 domestic journals by publication volume, 2012 - 2025.

Source	Ranking	Journal Name	Publications/Article
CNKI	1	Rural Work Bulletin	37
	2	Heilongjiang Grain	19
	3	Struggle	18
	4	China Fisheries	18
	5	China Grain Economics	17
	6	Agricultural Economic Issues	16
	7	Food Industry	13
	8	China Development Review	12
	9	China Food Industry	12
	10	Chinese Food and Nutrition	11

Based on their disciplinary affiliation and content, most publications fall within the fields of agriculture, food production, and food safety. The literature primarily proposes macro-level solutions tailored to China's current national conditions, focusing on interpreting the concept's essence, its practical significance, and implementation pathways. Among these, the journals Rural Work Bulletin, Heilongjiang Grain, Struggle, and China Fisheries rank high in publication volume.

3.2. Analysis of Research Hotspots Related to China's Grand Food Concept

3.2.1. Keyword Co-Occurrence Analysis

Analyzing keywords in a research field helps identify key research directions and construct a research framework. The font size of keywords in the diagram is proportional to their frequency of occurrence, while the density of connections reflects the frequency of co-occurrence between keywords.

Figure 3 presents the co-occurrence network diagram of keywords in China's Big Food Concept research. The diagram comprises 287 nodes (N = 287) and 342 connections (E = 342), with an overall network density of 0.0083. While domestic research involves numerous keywords, the degree of association among them remains relatively low.

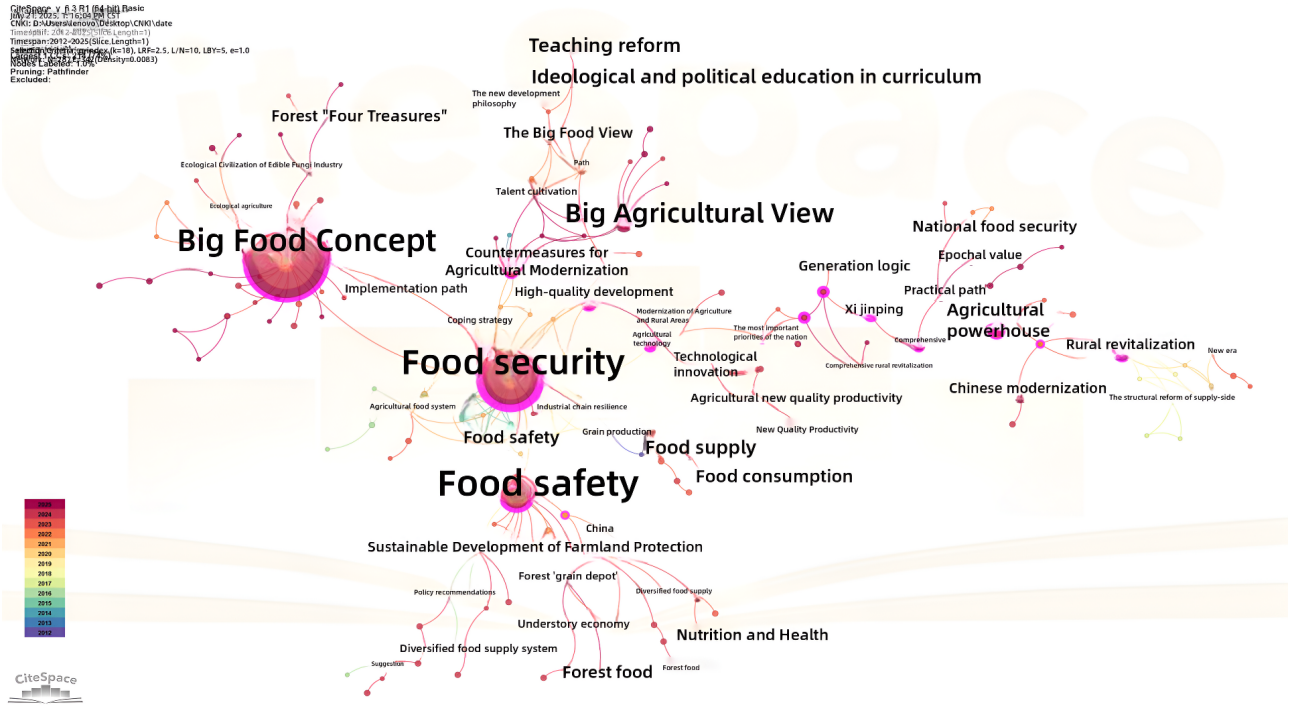

Figure 3. Keyword co-occurrence map of domestic research, 2012 - 2025.

Table 4 presents a comparative analysis of domestic keywords in the Grand Food Perspective field from 2012 to 2025. The analysis reveals that the most frequently occurring keywords in domestic research are, in descending order: "Grand Food Perspective", "Food Security", "Food Safety", "Grand Agriculture

Perspective", and "Rural Revitalization". Intermediary centrality reflects a node's influence within a collaborative network, with higher values indicating greater impact. Among domestic studies, "food security" (0.93) exhibits the highest intermediary centrality, indicating more extensive and in-depth research on this topic.

Table 4. Keywords in domestic research on the grand food perspective, 2012 - 2025.

Rank	CNKI Database		
	Keyword	Intermediary Centrality	Frequency
1	Food System Perspective	0.41	301
2	Food Security	0.93	156
3	Food Safety	0.41	46
4	Comprehensive Agriculture Perspective	0.05	17
5	Rural Revitalization	0.12	16
6	Agricultural Powerhouse	0.18	15
7	High-Quality Development	0.12	15
8	Chinese-Style Modernization	0.01	9
9	Agricultural Modernization	0.16	9
10	Sustainable Development	0.13	8

3.2.2. Keyword Cluster Analysis

Keyword clustering analysis was performed using CiteSpace to generate a keyword cluster map. A smaller cluster number indicates a larger number of keywords within that cluster. The Silhouette value measures the homogeneity of cluster members; a higher value indicates greater similarity among cluster members. The average year can be used to assess the temporal proximity of cited literature within a cluster.

The domestic literature keyword clustering map is shown in **Figure 4**. With Q = 0.8588 (>0.3) and S = 0.9825 (>0.7), the clustering results are reasonable and highly reliable, indicating significant clustering effectiveness. This map can be used to analyze the intrinsic logic and frontier trends of research themes in this field. The clustering results reveal some overlap among keywords, indicating that while distinct, the clusters remain interconnected. The domestic literature ultimately yielded 10 core clusters: "#0 Grand Food Concept", "#1 Food Security", "#2 Food Safety", "#3 Agricultural Modernization", "#4 Forest Foods", "#5 Agricultural Powerhouse", "#6 High-Quality Development", "#7 Central Document No. 1", "#8 Rural Revitalization", and "#9 Grain Production".

3.2.3. Keyword Emergence Map

Emerging keywords are those whose frequency significantly increases relative to other time periods within a short span. These keywords reflect current research hotspots, focal points, or emerging trends. Emergence intensity measures keyword frequency changes; higher intensity indicates greater attention to the keyword during that period and a higher likelihood of it becoming a research frontier.

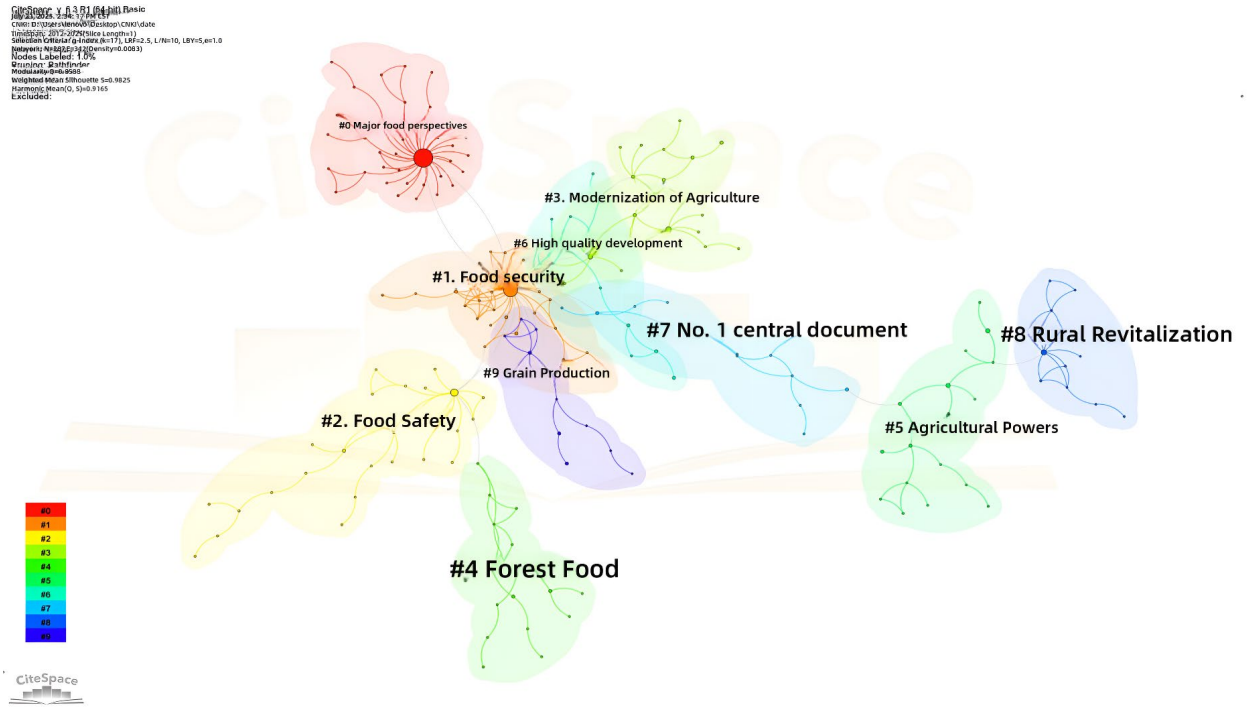

Figure 4. Clustering diagram of keywords in domestic research.

Visually presenting research hotspots for keywords within specific timeframes helps researchers quickly grasp current trends in the field. Analyzing the causes and context behind emergent keywords can predict future research hotspots and directions.

The emergence map of the top 19 keywords in domestic research is shown in Figure 5. Since the advent of the new era, the top three keywords in China's "big food perspective" research with the highest emergence intensity have been "food security",

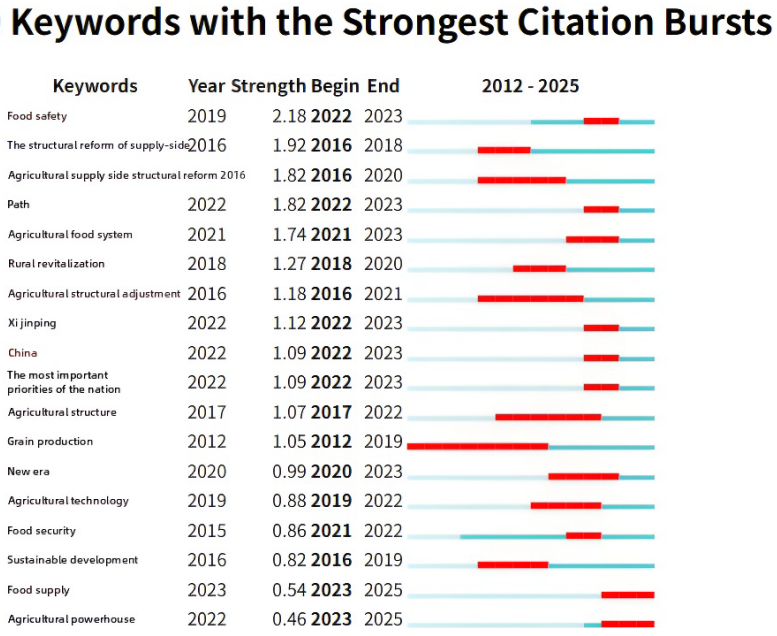

Figure 5. Emergence map of top 19 keywords in domestic research.

"supply-side structural reform", and "agricultural supply-side structural reform". The keywords with the longest sustained emergence duration are "grain production", "agricultural structure", and "agricultural structural adjustment.". As of 2025, the current hot keywords in the "big food perspective" research field are "agricultural powerhouse" and "food supply".

3.2.4. Specific Manifestations of Research Hotspots

Based on high-frequency analysis and clustering results, combined with specific literature under representative tags, each cluster was examined in depth to identify and refine key themes emerging in China's Grand Food Concept research since the new era. Details are as follows:

Domestic research hotspots primarily encompass four major categories: the grand food concept and food security, the grand food concept and diversified food supply, the grand food concept and building an agricultural powerhouse, and the grand food concept and rural revitalization.

1) The Big Food Concept and Food Security

This theme encompasses Cluster #1 (Food Security) and Cluster #9 (Food Production), focusing on keywords such as "industrial chain resilience, institutional design, food security, food production, food consumption, food imports/exports, and the status of grain".

Since the advent of the new era, the Party Central Committee with Comrade Xi Jinping at its core has consistently prioritized food security as the foremost task in state governance. By pursuing both reform and innovation, it has charted a path to food security with Chinese characteristics. The report to the 20th CPC National Congress states: "We must consolidate the foundation of food security in all respects," which requires "establishing a broad perspective on food security, developing facility agriculture, and building a diversified food supply system." Xi Jinping emphasized, "When we talk about food security today, we are actually talking about food security." "The public's food demands have become more diverse, requiring us to shift our mindset and embrace a broad perspective on agriculture and food." Guided by this principle, scholars have explored the transition from traditional food security concepts to a broader food security paradigm, focusing on three main areas. First, research on the evolving nature of food security. Academic studies have deepened the understanding of traditional food security concepts. Ji Zhigeng explicitly proposed the "broad food security concept under the new normal," expanding the boundaries of food security (Ji, 2016). The broader food security concept imbues food security with new meaning (Cai, 2022), anchored in grain as the foundation and guided by nutrition and health. Its core lies in driving the transformation of dietary structures from traditional staple-dominated patterns toward diverse, nutrient-rich models (Chen et al., 2019). This represents an expansion and extension of the traditional food security concept, embodying the strategic shift and historical evolution of the Party Central Committee's food security philosophy (Zhu, 2022). Second, research on China's current food supply and demand status and existing challenges within the broader

food security framework. Current food security faces pressures from water resources, arable land, and labor resources, while also being threatened by global climate change, agricultural nonpoint source pollution, and industrial external pollution. With an unstable foundation for food production, China's medium to long-term food supply exhibits vulnerabilities (Guo, 2020). Chen Yangfen analyzes the impact of the new global landscape on food security, proposing the need to balance international supply chains with domestic production capacity (Chen et al., 2021). He Ke points out that under resource and environmental constraints, food security must consider both "yield" and "ecological carrying capacity" (He and Song, 2021). Third, research on policies and pathways to ensure food security within the framework of the Grand Food Perspective. Different scholars propose distinct approaches: enhancing the resilience of the food industry chain and supply chain to improve risk resistance through policy optimization (Yin et al., 2025); refining institutional designs such as food production support policies, import-export regulation, and consumption guidance mechanisms to ensure the unshakable status of food (Zhong & Wang, 2025); and coordinating domestic production with international trade in the context of globalization to safeguard food security (Wei & Peng, 2025).

2) The Grand Food Perspective and Diversified Food Supply

This theme encompasses Cluster #0 (Grand Food Perspective), Cluster #4 (Forest Foods), and Cluster #2 (Food Security), with keywords including "health, sustainable development, food self-sufficiency rate, recommendations, forest-based economy, forest food reserves", etc.

Expanding from single arable land resources to diverse national resources, the broad food perspective emphasizes multi-pathway development of food resources to build a diversified food supply system. Regarding food sourcing channels, it stresses resource expansion research, advocating the development of non-arable resources like forests, oceans, and grasslands to increase supplies of forest foods (Li et al., 2025a), woody grains and oils (Xu et al., 2016), aquatic products (Yang et al., 2025), and new proteins (Li et al., 2025b). For constructing a diversified pattern, it promotes building forest "food reserves", optimizing Northeast China's forest food industry, and developing forest edible fungi (Ye et al., 2025). Some scholars analyze integrated rice-fish farming in the Yangtze River Economic Belt, advocating for tapping fishery potential to form a three-dimensional supply system (Wu & Wang, 2025). Additionally, under-forest cultivation and aquaculture can achieve ecological and economic win-wins, building "forest granaries" while promoting nutritionally balanced and eco-friendly food consumption to enhance self-sufficiency rates (Lin & Jin, 2024). To establish a diversified food supply system, it is essential to advance technological innovation and industrial support for diverse food provision, thereby reducing external dependence (Zhang et al., 2025).

Regarding source exploration, multiple scholars have conducted research. Efforts have been made to diversify terrestrial sources, such as analyzing the contribution of Fujian's woody crops and oil industries, which are proposed as crucial

supplements to "food supply beyond arable land" (Zeng et al., 2019). Regarding conceptual transformation, some scholars suggest Sichuan shift from "grain security" to "food security", marking the first explicit regional practice direction for diversified supply (Li et al., 2017). Other research proposes that under the concept of "big food", the "grain-centered" approach must be transcended to incorporate non-grain food categories (Cheng et al., 2025). Regarding marine foods, some studies examine technological trends in marine food quality and safety, emphasizing the strategic role of marine fisheries in diversified supply (Lin et al., 2018). Similar literature proposes an "integrated land-sea" perspective, incorporating marine protein into the food supply system (Yin et al., 2023). Other scholars analyze the transformation of urban and rural food consumption, noting that consumption upgrades drive diversified supply and necessitate corresponding adjustments on the production side (Wang et al., 2019). They also stress the importance of the broad food concept for national nutrition and health, proposing that supply must align with "dietary balance" (Qing et al., 2023).

3) The Grand Food Perspective and Building an Agricultural Powerhouse

This theme encompasses Cluster #3 (Agricultural Modernization), Cluster #5 (Agricultural Powerhouse), and Cluster #6 (High-Quality Development). Key terms include "comprehensive agriculture perspective, talent cultivation, pathways, modernization, national food security, technological innovation, and low-carbon agriculture".

Research on the Grand Food Concept and Building an Agricultural Powerhouse primarily explores how the Grand Food Concept can facilitate the construction of an agricultural powerhouse. By reshaping agricultural industrial structures and development models, the Grand Food Concept injects new momentum into high-quality agricultural development, serving as a strategic engine for accelerating the building of an agricultural powerhouse. The comprehensive food perspective emphasizes new-quality productive forces, low-carbon agriculture, and talent cultivation. Some scholars have introduced the concept of "new-quality productive forces in agriculture" (Huang, 2024; Luo & Peng, 2024), highlighting seed industry innovation and smart agriculture as critical to building an agricultural powerhouse. High-quality agricultural development is central to this endeavor, requiring a shift from "yield-first" to "quality and efficiency-first" (Song, 2018). The comprehensive agriculture perspective treats agriculture as an integrated system encompassing the entire industrial chain—from cultivation and breeding to processing (Sui & Li, 2025). Second, the Grand Food Concept advocates exploring smart ecological agriculture, infusing technological substance into the agricultural powerhouse strategy (Gao & Hou, 2025). In technological innovation, biotechnology and smart agriculture enhance new-quality productive forces to safeguard national food security. Research into the ecological logic of "storing grain in the land" promotes synergy between low-carbon agriculture and food security (Chen & Wang, 2025). Vigorous development of low-carbon agriculture advances resource-efficient, environmentally friendly farming practices to drive green transformation (Lan et al., 2024). Talent cultivation focuses on strengthening agricul-

tural science, technology, and management expertise to underpin the agricultural powerhouse initiative (Jiang, 2025).

4) The Grand Food Concept and Rural Revitalization

This theme encompasses Cluster #7 Central Document No. 1 and Cluster #8 Rural Revitalization. Key terms include "agriculture, rural areas, and farmers", "agricultural science and technology", "value implications", "supply-side structural reform", and "structural adjustment".

China's approach has evolved from addressing rural issues to comprehensive rural revitalization. Initially focused on agricultural supply-side reform, the strategy later expanded to include rural revitalization, with recent emphasis on synergizing the Grand Food Concept with rural revitalization. The Grand Food Concept advocates agricultural supply-side structural reform to optimize agricultural structure (Han, 2017), promote coordinated development of grain, cash crops, and fodder (Xu, 2016), and enhance agricultural efficiency. In agricultural technology application, it develops integrated smart agriculture and ecological technologies to elevate the quality of rural industries (Qiao, 2020). The proposal of the Grand Food Concept holds significant importance for rural revitalization, playing a multifaceted role in promoting rural economic, ecological, and social value (Su & Wang, 2023). Additionally, the structural adjustment of residents' food consumption advocated by the Grand Food Concept can adapt to changing dietary demands, develop distinctive industries, and contribute to rural revitalization (Li, 2019).

4. Conclusion

4.1. Key Findings

This study employed CiteSpace software to conduct a visualization analysis of domestic literature on the Grand Food Concept from 2012 to 2025. Through knowledge map visualization and bibliometric analysis across multiple dimensions—including journals, authors, and institutions—the following conclusions were drawn:

1) Publication volume trends show a consistent upward trajectory for both domestic research on the "comprehensive food perspective" and "food system transformation". 2) Top authors include Fan Shenggen and Long Wenjin in first place, followed by Ding Shengjun, Chen Mengshan, and Zhong Yu tied for third. Domestically, agricultural economics dominates as the primary discipline. From the perspective of author co-occurrence, domestic authors exhibit a dispersed distribution overall, and high-output authors rarely collaborate in the field of Chinese edible agricultural product consumption behavior. 3) In terms of institutional distribution, domestic research institutions show a generally low level of collaborative intensity, with agricultural universities and research institutions dominating the domestic Big Food Perspective research field. From the journal source perspective, domestic research focuses on theoretical studies, with most falling under the fields of agriculture, food, and food safety. 4) Research Hotspots: The most frequently occurring keywords in domestic studies are "comprehensive food per-

spective", "food security", "food safety", "comprehensive agriculture perspective", and "rural revitalization". Domestic research on the comprehensive food perspective remains grounded in food security studies. Keyword clustering reveals four primary research dimensions: the comprehensive food perspective and food security; the comprehensive food perspective and diversified food supply systems; the comprehensive food perspective and building an agricultural powerhouse; and the comprehensive food perspective and rural revitalization.

4.2. Limitation

Using CiteSpace to analyze keywords, research institutions, clusters, and other elements related to the "Grand Food Concept" in the CNKI database is subject to limitations arising from reliance on a single data source and the exclusion of non-Chinese literature.

First, sole reliance on the CNKI database results in incomplete literature coverage and insufficient representativeness. While CNKI is a core database for Chinese academic literature, it primarily includes conventional scholarly outputs such as journal articles, dissertations, and conference papers. It lacks critical materials such as government policy documents, industry reports, think tank research, and records of local practical cases. Given that the "Grand Food Concept" is a policy-driven research theme, policy texts constitute a fundamental source for both its theoretical development and practical application. Relying exclusively on academic papers may therefore lead to a relatively narrow analytical perspective.

Second, the absence of non-Chinese literature creates a limited international perspective and precludes cross-contextual comparison. The core of the "Grand Food Concept" concerns diversified food supply and food security assurance. Internationally, this theme aligns with research fields such as "food systems", "food security", and "sustainable agriculture", where substantial theoretical and practical work already exists in regions including Europe, North America, Japan, and South Korea. By not incorporating non-Chinese literature from databases such as SCI and SSCI, this analysis cannot compare and contrast Chinese and international research, resulting in a lack of global perspective and insufficient examination of international cases. Consequently, the findings presented here primarily reflect the focus of the Chinese academic community rather than the global research landscape. The policy context and research paradigm remain distinctly Chinese, with limited international generalizability.

4.3. Outlook

Based on the current state of domestic research on the Grand Food Concept, this section outlines prospects for its development in China's new era, aiming to better achieve national food security in the new era.

First, strengthen systemic thinking to establish an implementation framework for the new era's Grand Food Concept. Current domestic research predominantly focuses on theoretical interpretations of the Grand Food Concept, lacking a sys-

tematic and actionable practical framework. Future efforts should deepen research into the governance system of the Grand Food Concept, examining it through a holistic lens and drawing on international experiences integrating food system transformation into environmental, social, and national development. Amidst global transformations and frequent public health emergencies, priority should be given to exploring how to ensure stable supply and quality safety of edible agricultural products. Research on the relationship between food and health must be deepened, covering topics such as nutrient composition, dietary structure optimization, and health risk assessment. As an emerging interdisciplinary field, the integration of the Grand Food Concept with the Rural Revitalization Strategy urgently requires in-depth exploration of its theoretical implications, practical pathways, and the mechanisms through which it influences residents' food consumption behaviors.

Second, promote interdisciplinary integration and support the coordinated development of diverse disciplines. The findings of this study indicate that the institutions publishing on the Grand Food Concept are predominantly concentrated in China's agricultural research institutes, and there is limited collaboration between these institutes and university departments, governmental agencies, and social organizations. Moreover, the research remains largely confined to the single discipline of agricultural science. Therefore, advancing research on the Grand Food Concept necessitates the establishment of interdisciplinary integration platforms that bridge agricultural science with nutrition, economics, ecological and environmental sciences, sociology, and other relevant fields. This integration is not merely an additive combination of disciplines but rather a synergistic system centered on the "food system". Nutrition focuses on consumer health, agricultural science concentrates on production supply, environmental science addresses systemic ecological impacts, economics examines resource allocation efficiency, and sociology explores dietary culture and policy implementation mechanisms. By drawing on the strengths of each discipline, we can construct a highly inclusive and comprehensive research system to achieve scientific understanding and systematic analysis of issues related to the broader food perspective.

Third, coordinate quantitative and qualitative research methods while advocating for participatory local research. Scholars are encouraged to distill insights from domestic and international agricultural food system transformation practices. By integrating methods such as system modeling, case analysis, and pattern induction, they should focus on the practical foundations and developmental trajectories of agricultural food systems across diverse regions. This approach facilitates the design of transformation plans and development pathways characterized by clarity, feasibility, innovation, and foresight. Concurrently, researchers should be guided to conduct in-depth investigations into region-specific challenges, proposing tailored solutions that align with local contexts.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

Cai, H. (2022). New Trends, New Connotations, and New Patterns in China's Food Security. *People's Forum, No. 19,* 60-63.

Chen, J., & Wang, G. (2025). Advancement Strategies for Developing New Quality Productive Forces in China's Agriculture Under the New Development Paradigm. *Theoretical Exploration, No. 2,* 102-111.

Chen, M., Qin, L., & Cheng, G. (2023). Practicing the Grand Food Perspective: Challenges, Goals, and Pathways for China's Food System Transformation. *Agricultural Economic Issues, No. 5,* 4-10.

Chen, Y., Wang, J., Zhang, F., Liu, Y., Cheng, S., Zhu, J., Si, W. et al. (2021). Globalization and the New Pattern of Food Security. *Acta Scientiae Naturae, 36,* 1362-1380. https://doi.org/10.31497/zrzyxb.20210602

Chen, Z., Bi, J., Nie, F. et al. (2019). A New Vision for China's Nutrition-Oriented Food Security and Policy Recommendations. *Chinese Journal of Agricultural Science, No. 18,* 3097-3107.

Cheng, G., Tang, Z., & Wang, R. (2025). Research on China's Grain Demand Forecast and Security Measures Under a Balanced Diet Model. *Journal of Nanjing Agricultural University (Social Sciences Edition), 25,* 120-131.

Ding, S. (2023). Objective Basis, Far-Reaching Significance, and Implementation Measures for the Grand Food Concept. *Journal of Zhongzhou, No. 5,* 58-66. https://doi.org/10.2307/jj.982970.9

Fan, S., & Zhang, Y. (2023). Practicing the Grand Food Concept: A Strategic Choice for Promoting National Nutrition, Health, and Sustainable Development. *Agricultural Economic Issues, No. 5,* 11-21.

Gao, Q., & Hou, Y. (2025). Scientific Implications, Strategic Framework, and Practical Approaches for Implementing the Grand Agriculture Concept in the New Era. *Journal of Nanjing Tech University (Social Sciences Edition), 24,* 112-126+128.

Guo, L. (2020). Analysis of Vulnerabilities in China's Medium-to-Long-Term Grain Supply and Countermeasures. *Journal of Zhongzhou University, No. 8,* 32-37.

Han, J. (2017). Agricultural Supply-Side Structural Reform as a Key Component of the Rural Revitalization Strategy. *China Economic Report, No. 12,* 15-17.

He, K., & Song, H. (2021). China's Food Security Under Resource and Environmental Constraints: Implications, Challenges, and Policy Orientations. *Journal of Nanjing Agricultural University (Social Sciences Edition), 21,* 45-57.

Huang, J. (2024). New Quality Productivity in Agriculture: Connotation and Extension, Potential and Challenges, and Development Approaches. *China Rural Review, No. 5,* 19-34.

Ji, Z. (2016). Research on Establishing a Broader Food Security Perspective Under the New Normal. *Modern Economic Exploration, No. 5,* 59-62.

Jiang, C. (2025). Key Highlights of the 2025 Central Document No. 1. *Rural Finance Research, No. 2,* 3-18.

Lan, H., Feng, W., & Hu, Y. (2024). Development Strategies and Pathways for Ecological Low-Carbon Agriculture in the Context of Food Security. *Journal of Huazhong Agricultural University, 43,* 39-50.

Li, W. (2019). Henan's Rural Revitalization Sets Sail Again: Focusing on "Agriculture, Rural Areas, and Farmers" Hot Topics at Henan's Two Sessions. *Rural Agriculture Farmers (A Edition), No. 3,* 12-13.

Li, Y., Song, B., Han, B., & Li, H. (2025a). Research on the Optimized Development of the Forest Food Industry in Northeast China from the Perspective of the Grand Food Concept. *Forest Products Industry, 62,* 94-100.

Li, Y., Wei, P., Jiang, X., Chen, G., Wang, Y., Lan, M., & Deng, J. (2017). Accelerating Structural Adjustment in Crop Production: Reflections on Sichuan's Transition from Food Security to Food Safety. *Agricultural Science and Technology Management, 36,* 1-3.

Li, Z.H., Kong, H., Liu, X., & Chen, J. (2025b). Novel Protein Sources: Opportunities and Challenges. *Chinese Journal of Bioengineering, 41,* 1691-1704.

Lin, H., Xu, L., Cao, L., Tan, Z., Cai, Y., Lü, P., Bai, F., & Song, Y. (2018). Reflections on Technological Trends in Marine Food Quality and Safety. *China Fishery Quality and Standards, 8,* 1-6.

Lin, M., & Jin, N. (2024). Research on the Price Formation Mechanism of Key Agricultural Products from the Perspective of the "Grand Food Concept". *China Prices, No. 6,* 5-9+29.

Liu, W., & He, D. (2023). Blueprint for a Great Nation: Advancing Chinese Modernization Through Planning Systems. *Theoretical Exploration, No. 5,* 5-13+30.

Long, W., & Fan, S. (2023). Research on Building a Diversified Food Supply System Based on the Grand Food Concept. *Research on Agricultural Modernization, 44,* 233-243.

Luo, B., & Geng, P. (2024). New Quality Productivity in Agriculture: Theoretical Framework, Core Elements, and Enhancement Pathways. *Agricultural Economic Issues, No. 4,* 13-26.

Qiao, J. (2016). Potato Industry Development Pathway Clarified. *Economic Daily.*

Qiao, L. (2020). Research on AI-Based Smart Ecological Agriculture Development Models. *Grain Science and Economics, 45,* 31-33.

Qing, P., Wang, Y., Li, J., & Min, S. (2023). The Grand Food Perspective and National Nutrition and Health. *Agricultural Economic Issues, No. 5,* 61-73.

Song, H. (2018). Advancing High-Quality Development in Agriculture. *China Development Review, No. 23,* 49-53.

Su, Y., & Wang, F. (2023). The Generative Logic, Implications, and Practical Approaches of the Grand Food Perspective. *Learning and Practice, No. 7,* 44-53.

Sui, F., & Li, B. (2025). The Grand Agricultural Perspective: An Agricultural Philosophy for a New Era. *Journal of Hangzhou Municipal Party School, No. 2,* 77-85.

Wang, H., Chen, Z., & Cao, H. (2019). Transformation of Food Consumption and Its Ecological Footprint Among Urban and Rural Residents in Fujian Province Against the Background of Urbanization. *Jiangsu Agricultural Sciences, 47,* 315-321.

Wei, H., Ye, X., Du, Z., Fan, S., Luo, B., Liu, S., & Huang, C. (2022). Accelerating the Formation of a New Development Pattern and Promoting High-Quality Development in Agriculture and Rural Areas: Authoritative Experts' In-Depth Interpretation of the Spirit of the 20th CPC National Congress. *China Rural Economy, No. 12,* 2-34.

Wei, Y., & Peng, Y. (2025). Strategy Selection for Diversified Food Supply Under the Grand Food Perspective: Importing Grain or Meat? *Agricultural Economics and Management, No. 4,* 21-30.

Wu, H., & Wang, P. (2025). Spatiotemporal Evolution and Advancement Pathways of Rice-Fish Integrated Farming in the Yangtze River Economic Belt under the Grand Food Perspective. *Journal of Agricultural and Forestry Economics and Management, 24,* 321-329.

Xu, L., Hong, Y., & Dong, J. (2016). Contribution and Potential Analysis of Fujian Prov-

ince's Woody Grain and Oil Crops Industry. *Forestry Economic Issues, 36,* 546-550+570.

Xu, W. (2016). Influencing Factors and Policy Recommendations for Coordinated Development of China's Grain-Cash Crops-Fodder Tripartite Planting Structure. *Seed Science and Technology, 34,* 31+33.

Yang, F., Li, T., Wang, M., & Qiao, S. (2025). Research on Expanding Spatial Potential for Livestock and Aquatic Industries Under the Grand Food Perspective. *Chinese Journal of Animal Science, 61,* 391-396.

Ye, X., Liang, P., & Lin, X. (2025). Key Focus and Pathways for Building Forests as "Grain Reserves" Under the Grand Food Perspective. *Forestry Economic Issues, 45,* 29-40.

Yin, C., Zhang, L., & Liu, K. (2025). Research on the Empowerment Mechanism of New Quality Productivity in Ensuring Food Security under the Grand Food Concept. *Journal of Agricultural and Forestry Economics and Management, 24,* 311-320.

Yin, W., Yu, H., Han, L., Zhu, W., & Xun, X. (2023). Food Supply-Demand Balance in China's Coastal Regions from the Perspectives of Variety and Nutrition. *Economic Geography, 43,* 13-22.

Zeng, Y., Du, Q., & Chen, J. (2019). Research on Sustainable Development Strategies for Food Security in the Southeast Coastal Region. *Chinese Journal of Engineering Science, 21,* 45-53. https://doi.org/10.15302/J-SSCAE-2019.05.025

Zhang, Y., & Long, W. (2023). Challenges and Enhancement Strategies for Agricultural Industrial Chain Resilience Under the Grand Food Concept. *Journal of Zhongzhou, No. 4,* 54-61.

Zhang, Z., Yang, Y., Huang, Y., & Cao, F. (2025). Building a Diversified Food Supply System: Challenges, Opportunities, Lessons Learned, and Advancement Pathways. *World Agriculture, No. 10,* 54-65.

Zhong, Y., & Wang, S. (2025). Research on Food Security Governance Pathways Under Chinese Modernization. *Research on Governance Modernization, 40,* 39-50.

Zhong, Y., & Cui, Q. (2022). From Food Security to the Grand Food Perspective: Dilemmas and Pathways. *Journal of Theoretical Studies, No. 6,* 102-109.

Zhu, J. (2022). Establishing a Broad Food Perspective and Building a Diversified Food Supply System. *Agricultural Economics and Management, No. 6,* 11-14.