

# Theoretical and Practical Exploration on Strengthening Party Building in the New Era to Lead the High-quality Development of Fruit Tree Research; A Case Study of the Changli Institute of Pomology, Hebei Academy of Agriculture and Forestry Sciences

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**Abstract** Taking the Changli Institute of Pomology, Hebei Academy of Agriculture and Forestry Sciences (hereinafter referred to as the Changli Institute of Pomology) as a case study, this paper explores the practical pathways through which Party building leads to the high-quality development of fruit tree research from three dimensions: theoretical convergence points, current development status, and functional mechanisms. It proposes that Party building should focus on its core roles of steering political direction, enhancing team cohesion, and upholding ethical standards. Deep integration of Party building and scientific research should be achieved through concrete platforms, with the effectiveness measured by breakthroughs in critical "bottleneck" technologies and increased income for fruit growers. The study aims to provide a practical reference for integrating Party building with professional work in the agricultural research sector.

**Key words** Party building leadership, Fruit tree research, High-quality development, Theory and practice, Changli Institute of Pomology

## 0 Introduction

The Fourth Plenary Session of the 20<sup>th</sup> Central Committee of the Communist Party of China emphasized strengthening original innovation and R&D in core technologies and deepening the integration of scientific and technological innovation with industrial innovation, while also calling to comprehensively enhance independent innovation capability and seize the high ground in sci-tech development<sup>[1]</sup>. This reaffirms the clear orientation towards integrating Party building with scientific research. The core mission of provincial-level agricultural research institutions is to be guided by Party building, focus on revitalizing agriculture, strengthening the rural areas, and ensuring people's livelihoods, prioritize agricultural technological innovation, achievement transformation, and technical services, solidify the foundations of food security and seed industry security, and empower agricultural industrial upgrading and comprehensive rural revitalization<sup>[2]</sup>.

## 1 Theoretical basis of the inherent convergence between the general requirements for Party building and the high-quality development of fruit tree research

Essentially, leading the high-quality development of fruit tree research through Party building represents the organic unity of the Party's core leadership role and the developmental laws of scientific research. Their inherent points of convergence and theoretical

basis are manifested at three levels<sup>[3]</sup>.

**1.1 Convergence in political direction** President Xi has emphasized that upholding the Party's leadership over sci-tech endeavors is a historical necessity for the rapid development of China's sci-tech cause, as it ensures that technological innovation remains aligned with national needs and objectives<sup>[4]</sup>. The general requirement for Party building in the new era, "upholding and strengthening the Party's overall leadership", highly aligns with the core mission of fruit tree research, which is "serving the national strategy for rural revitalization and ensuring the security of the fruit industry"<sup>[5]</sup>. Fruit tree research involves key areas such as germplasm resource conservation, breakthroughs in core technologies, and industrial upgrading. Only under the Party's leadership, focusing on the major national priorities can the fragmentation and utilitarianism of research directions be avoided, ensuring that scientific efforts concentrate on national strategic needs and address overarching and fundamental issues in the development of the fruit industry<sup>[6]</sup>.

**1.2 Unity in value pursuits** Party building adheres to the fundamental principle of "serving the people wholeheartedly"<sup>[3]</sup>, while the ultimate goal of fruit tree research is to develop superior varieties, promote advanced technologies, increase income for fruit growers, and enhance the quality and efficiency of the fruit industry. The two are highly unified in their "people-centered" value pursuit<sup>[2]</sup>. This unity forms the mass base and driving force for Party building to lead scientific research, propelling research work from the laboratory to the fields, ensuring that the fruits of technological innovation truly benefit people's livelihoods, demonstrating the original aspiration of science and technology for the people, and resonating deeply with the Party's mass line in practice<sup>[7]</sup>.

Received: October 19, 2025 Accepted: December 17, 2025

Supported by Qinhuangdao Social Sciences Development Research Project (2025LX378).

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**1.3 Synergy in development pathways** The general requirements for Party building emphasize "enhancing organizational strength and strengthening mission responsibility"<sup>[3]</sup>, while fruit tree research faces multiple challenges such as interdisciplinary collaboration, long-term technological accumulation, and industry-academia-research integration, which must be supported by strong organizational coordination and team cohesion<sup>[6]</sup>. The leadership, organizational capability, and influence of Party organizations can effectively break down barriers between research teams, coordinate resource allocation, and build collaborative mechanisms for major technological breakthroughs. This highly aligns with the systemic and collaborative requirements essential for the development of scientific research and serves as a crucial organizational guarantee for promoting the high-quality development of fruit tree research<sup>[7]</sup>.

## 2 Analysis of the current situation of Party building and scientific research development in research institutes

**2.1 The organizational setup of Party building is increasingly sound** The Changli Institute of Pomology has established a three-tiered organizational structure comprising the "General Party Branch — Party Branches — Party Groups". It oversees two main Party Branches: one for research and one for administration, which respectively manage 8 and 3 Party Groups. By creating the Party building brand "Changguoqing · Party Flag Red" and adopting the model of establishing Party Groups within research teams, the Institute has achieved full coverage of Party organizations over all research teams.

**2.2 There is a high proportion and prominent role of Party members in research teams** Party members constitute over 70% of the total research staff at the Institute, and this proportion reaches 90% among core research teams and principals of major projects. The Institute implements a "Dual-Leader" cultivation program, selecting Party member experts with high political quality and strong academic capabilities to serve as discipline leaders, Party Branch secretaries, and Party Group leaders. This achieves a two-way empowerment and deep integration of "Party building leaders" and "scientific research leaders".

**2.3 Integration of Party building and research has a practical foundation but room for optimization remains** First, the platforms for integration are not sufficiently diverse, and some Party building activities lack strong relevance to research operations<sup>[6]</sup>. Second, the assessment and evaluation mechanisms are not fully developed, and the linkage between the effectiveness of Party building work and research performance is not tight enough<sup>[7]</sup>. Third, the distinctive characteristics of the industry are not fully highlighted. Given the features of fruit tree research, such as its long cycle, strong regional specificity, and close ties to agricultural production, the precision of Party building services needs enhancement<sup>[8]</sup>.

## 3 A three-dimensional mechanism of Party building in leading the development of fruit tree research

**3.1 Political guidance mechanism: steering research direction and ethical standards** On the one hand, through specialized study of President Xi's important expositions on technological innovation and work related to agriculture, rural areas, and farmers, researchers are guided to keep in mind the mission of "storing grain in technology" and to focus on national strategic needs such as germplasm resource innovation and agricultural product quality and safety in the fruit industry<sup>[2,4,8]</sup>. On the other hand, it strengthens the construction of scientific research ethics by establishing a research integrity commitment system led by Party members, standardizing work processes in areas such as variety registration and achievement transformation, and eliminating academic misconduct.

**3.2 Organizational cohesion mechanism: activating team combat effectiveness and innovation vitality** Using organizational building as a link, Party organizations construct a research ecology characterized by cross-disciplinary collaboration and mentorship across old, middle-aged, and young generations. By establishing "Party Member Task Force Groups", they coordinate Party member researchers from different disciplines to conduct joint research, tackling cross-disciplinary challenges such as cold-resistant breeding and green pest control in fruit trees. By implementing the "Party Member Mentorship System", senior Party member experts guide young researchers, passing on research techniques and the spirit of scientists, thereby accelerating the growth and development of young scientific talent.

**3.3 Conduct safeguard mechanism: consolidating the foundation of research for the people and pragmatism** Focusing on conduct building, Party organizations cultivate a work style among researchers that is grounded in the fields, pragmatic, and innovative. Integrating a "problem-oriented approach" into research topic selection, they have developed a range of fruit tree varieties and cultivation techniques that are highly adaptable and economically beneficial. By promoting the agricultural science spirit of "innovation, hard work, and dedication", they guide researchers to be willing to "sit on a cold bench" and delve deeply into long-term basic research, building momentum for the high-quality development of the fruit industry.

## 4 Practical pathways for strengthening Party building to lead high-quality research development

**4.1 Creating industry-specific integration platforms** Centering on the characteristics of fruit tree research, innovative activity formats such as "Orchard Party Lectures" and "Technology Promotion Theme Party Day" events are developed, moving Party lectures to variety trial fields and the frontline of technology extension. The Changli Institute of Pomology has cumulatively resolved over 8 major technical challenges in industrial development, gen-

