

## Present Situation and Suggestions of High Standardized Construction in Shaanxi Province

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### Abstract

The CPC Central Committee with Comrade Xi Jinping at its core has always attached great importance to food security since the 18th CPC National Congress, emphasizing the need to strictly abide by the red line of 1.8 billion acres of arable land, ensure national food security, and implement the strategy of "storing grain in the ground and storing grain in technology." The construction of high-standard farmland is a key measure to consolidate and improve food production capacity, ensure national food security and implement the strategy of rural revitalization. The Fifth Plenary Session of the Nineteenth Central Committee stressed 'the need to adhere to the most stringent farmland protection system and implement high-standard farmland construction projects'. The proposal of the Central Committee of the Communist Party of China on the formulation of the 14th five-year plan for national economic and social development and the long-term goal of 2035 put forward that we should vigorously promote the construction of high-standard farmland, provide a solid foundation for ensuring national food security, and ensure that by 2022, 1 billion mu of high-standard farmland will be built nationwide, so as to stabilize and guarantee trillion yuan of grain production capacity.

### Keywords

High Standardized Construction; Food Security; Shaanxi Province.

### 1. Introduction

The north-south span of Shaanxi Province is 878 km, and the region is narrow and long; the terrain is high in the north and south, low in the middle, tilted from west to east, showing a landscape pattern of two mountains and one river. There are great differences in geomorphology. From south to north, it is divided into three major geomorphic areas: Qinba Mountain Area, Guanzhong Plain and Northern Shaanxi Plateau. Due to the differences in geological landforms, the cultivated land area and cultivated land quality in the three regions of Shaanxi Province are significantly different. From the distribution of various types of cultivated land quality grades, the cultivated land quality in Guanzhong area is the best, with an average of 9.68, which is higher than the average of 1.65 cultivated land grades in the whole province. The cultivated land quality in southern Shaanxi is slightly higher than the average level of the whole province, with an average of 11.28; the cultivated land grade in northern Shaanxi is lower than the average level of the province 2.01 grade, the average is 13.34 [1]. And the province's only 0.47 million hm<sup>2</sup> excellent land, distributed in Guanzhong area. Cultivated land protection and national food security are the basic national policies, but there are still many problems. One is to establish a high and stable yield of high standard farmland, to ensure national food security is the country's development strategy, however, the quality of cultivated land evaluation standards are different, farmland construction standards are different, new materials, new technologies, new methods are lacking, the construction plan is not clear, the

construction field is fragmented, the construction mode is solidified, the effect evaluation method is single, etc., resulting in the late farmland back to the original state and so on. The second is the agricultural production mode that is not deep in the integration of the three industries, lacks the cultivation of professional talents, has no mature, can be promoted and implemented in a large area, a wide range and across regions, and only a few regions have small-scale agricultural industrial modes, but its popularization and application have great limitations on the industrial mode of farmland construction. The third is the lack of policy guidance, infrastructure construction and information technology talents for the development of smart agriculture.

## **2. High Standardized Construction Gap is Big, The Task is Arduous, and the Cultivated Land Quality Evaluation Standards are Different, Farmland Construction Standards are Different, New Materials, New Technologies, New Methods are Lacking, The Construction Plan is Not Clear, the Construction Field is Fragmented, The Construction Mode is Solidified, and the Effect Evaluation Method is Single**

At present, there are 59.65 million mu of cultivated land in Shaanxi Province, and the high standard farmland area is 1,400 million mu, accounting for about 23% of the cultivated land. Shaanxi Province is mainly concentrated in Guanzhong area, accounting for 89.64 % of the province ' s higher land area, for 6.155 million hm<sup>2</sup>, no higher land distribution in northern Shaanxi, higher land area in southern Shaanxi is 7.11 million hm<sup>2</sup> ; the middle-level region was the most, which was 8.128 million hm<sup>2</sup>, followed by southern Shaanxi, which was 6.289 million hm<sup>2</sup>, and northern Shaanxi was the least, which was 2.143 million hm<sup>2</sup> ; lowland mainly distributed in northern Shaanxi, accounting for 72.96% of the province's lowland area, 120.30 million hm<sup>2</sup>, Guanzhong and southern Shaanxi lowland area is less, respectively 24.74 million hm<sup>2</sup>, 19.84 million hm<sup>2</sup>. During the '14th Five-Year Plan', the province should build 773 million mu of high-standard farmland, upgrade 179 million mu of high-standard farmland, and supplement 323 million mu during the '13th Five-Year Plan'. At the same time, the design requirements of high-standard farmland construction are different. The construction requirements of different areas in the same region are different, and the feasible design standards are different. High standard farmland construction system is not perfect, lack of equipment late management and protection, lack of infrastructure construction, such as irrigation system into operation, the lack of maintenance measures, resulting in some equipment unattended and maintenance, function gradually weakened. The lack of scientific operation management mode, the whole process is in the stage of continuous exploration, the lack of strict requirements, affecting the process of high standard farmland construction. The construction plan is not clear, and the construction should be carried out in strict accordance with the plan, which can be changed after the discussion on the site emergencies. The construction of land fragmentation is not conducive to large-scale mechanized operations. The construction mode is solidified, the effect evaluation method is single, and there is a lack of diversified farmland construction. The overall construction effect is measured by a single function. At the same time, the utilization of provincial agricultural funds and the construction of high-standard farmland have not formed a joint force, which is relatively dispersed. The improvement of farmland quality and the agricultural industry have not formed a agglomeration effect, and it is difficult to play the purpose of promoting rural revitalization through comprehensive land consolidation [2].

### **3. Speeding up the Depth of Integration of Three Industries, Cultivating Professional Talents, Accelerating the Popularization and Application of High-tech in Agriculture, Cultivating Characteristic Agricultural Products and Their Industrialization, Promoting Rural Economic Development and Promoting Rural Revitalization**

Shaanxi agricultural industrialization started late, but the development speed is fast, in recent years has emerged a large number of large-scale, strong driving ability of leading enterprises. Although these leading enterprises have played a certain role in the development of agricultural industrialization in Shaanxi Province, there is still a big gap with the eastern provinces which started earlier, and there is a big gap in scale, quality and efficiency. First, the leading enterprises of agricultural industrialization in Shaanxi Province have limited driving effect on farmers [3]. Due to the small number of leading enterprises, weak economic strength and small operation scale, their radiation range is limited, and their driving ability to farmers in the radiation range is limited. Second, when the development of intermediary organizations lags behind and the leading enterprises have low radiation driving ability, the development of agricultural intermediary organizations can effectively promote the industrialization of agriculture, connect farmers and leading enterprises, improve the degree of farmers' organization, and promote the development of agricultural industrialization. Third, the concept lags behind, farmers' educational level is limited, the ability to accept new ideas, new knowledge and new technology is weak, and the concept lags behind, such as indifferent market awareness, underdeveloped commodity economy. Fourthly, the depth of the integration of the three industries is insufficient. In order to develop the rural industry well, the most important thing is to establish a good industrial system, extend the industrial chain, and integrate the primary, secondary and tertiary industries. However, despite the concept, there is a lack of innovation in the implementation process, resulting in a low degree of integration and insignificant benefits of industrial development. Fifth, the lack of professional talents, rural industry involves a wide range, but the lack of professional talents, in terms of agricultural new business entities, the local cultivation and support efforts also need to be further strengthened. In addition, there is a lack of integration with the higher education mechanism. The times are changing, and the rural areas are changing. The development of rural areas needs more talent input, which requires universities, enterprises and governments to complete the docking. With regard to the development of agricultural industrialization in Shaanxi Province at the present stage, it is urgent to develop an agricultural industrial model that can be popularized in a large scale to ensure the rapid development of rural economy and promote rural revitalization.

### **4. Conclusion**

The construction of high-standard farmland in Shaanxi Province needs to carry out the construction of theory, technology, products, equipment, overall solutions and experimental demonstration projects to improve the quality of cultivated land from the aspects of farmland standardization construction, farmland construction industry model, intelligent farmland and informatization. It is necessary to innovate the key scientific problems of efficient utilization of agricultural land resources, focus on cultivating high-level talents in related fields, improve the construction of supplementary land discipline system, integrate theoretical and technical research, applied research and farmland construction in an all-round way, and form a circular ecological development model of scientific research + engineering + talent + industry + economy, so as to improve the level of new achievements and new technology application in the industry. Promote scientific and technological progress in the field of high-standard farmland construction.

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