

Present Situation and Development Trend of Agricultural Mechanization in Hubei Province

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Keywords: Agricultural mechanization; Development trend; Hubei province

Abstract. Agricultural mechanization is not only an important symbol of agricultural modernization, but also a pivotal link to realize agricultural modernization. The development level of agricultural mechanization directly affects the level of material equipment and comprehensive production capacity of agriculture, the transfer of rural labor force and the transformation from traditional agriculture to modern agriculture.

Introduction

Agricultural mechanization is not only an important symbol of agricultural modernization, but also a pivotal link to realize agricultural modernization. The development level of agricultural mechanization directly affects the level of material equipment and comprehensive production capacity of agriculture, the transfer of rural labor force and the transformation from traditional agriculture to modern agriculture.

Development of agricultural conditions in Hubei Province is unique, traditional agriculture is famous for a long time, is a major province of national grain production base. Speeding up the development of agricultural mechanization is of great significance in promoting the rapid development of agriculture and rural economy in Hubei Province and realizing the transformation from a large agricultural province to a strong agricultural province.

With the formation and development of agricultural industrialization, the importance of agricultural mechanization in agricultural production is more and more prominent. Without mechanization of agriculture, there can be no modernization of agriculture. The development of agricultural mechanization is an inevitable trend of productivity development. So it is necessary to study the present situation and development trend of agricultural mechanization in Hubei Province and to promote the further development of agriculture.

Summary of Agricultural Mechanization

Definition of Agricultural Mechanization.

Agricultural mechanization is one of the basic contents of agricultural modernization, which refers to the process of using advanced and applicable agricultural machinery to equip agriculture, improve the conditions of agricultural production and management, and continuously improve the level of agricultural production technology, economic benefits and ecological benefits. With the development of agriculture, it has become the trend of agricultural modernization to use all kinds of machinery instead of manual tools to produce. For example, in the planting industry, the use of sown machines, tractors, harvests, motor vehicles, and power irrigation machines for sowing, land tilling, field management, harvesting, irrigation, transportation, and so on, so that the entire production process is not mainly dependent on human resources. Animal power, but rely on mechanical power and electricity to complete.

The Role of Agricultural Mechanization.

(1) Increased grain production

With the rapid development of agricultural mechanization, the sowing area of grain has been stabilized, the yield of grain has been increased, the harvest and seed have been rushed, the agricultural time has been obtained, and the loss has been reduced.

(2) Broadened the channels for increasing farmers' income

The extensive application of agricultural machinery has greatly improved labor productivity and promoted the transfer of rural labor to non-agricultural industries. The scale of socialized service of agricultural machinery is expanding day by day, and the economic benefit of agricultural machinery households is obviously increased.

(3) Promoting the sustainable development of agriculture

Agricultural mechanization is widely used in planting, breeding and processing of agricultural products. It runs through the whole process of pre-production, production and post-natal, and promotes the large-scale, standardized, intensive, industrialized management of agriculture, from traditional agriculture to modern agriculture.

(4) Cultivate a new type of professional farmer

Agricultural mechanization has created a large number of know-how, cultural, management of new-type farmers, operational experts and rich leaders.

Significance of Agricultural Mechanization.

(1) Agricultural Mechanization is the inevitable requirement of constructing Modern Agriculture

From the experience of agricultural development in foreign developed countries, it is necessary to have a high degree of mechanization in order to significantly improve the agricultural output value and benefit. Agricultural mechanization has been widely used in agricultural production in recent 100 years, which led to the fundamental change of agricultural mode of production. The high level of mechanization in developed countries has greatly mobilized the rate of agricultural labor manufacture. Such as Australian wheat autumn, rice, barley, oats, herbage and other crops have been mechanized around 1970, so far maintained a high level of mechanization.

(2) Agricultural Mechanization is beneficial to increase Farmers' income

Agricultural mechanization is one of the important factors in the development of modern agriculture. The vigorous development of agricultural mechanization improves the efficiency of agricultural production makes the per capita output value and benefit of rural areas significantly improved and enhanced the level of agricultural management. In developed countries, the proportion of agricultural population to the total social population has been very low for a long time, but the output of agricultural products ranks first in the world, and many agricultural products are exported every year, mainly because of its high level of mechanization and the existence of all kinds of agricultural machinery. Its labor force can cultivate hundreds of hectares of land. The development of agricultural mechanization liberated the agricultural productive labor force, began to engage in the second and third industries with higher income, expanded the way of employment of farmers, and increased the income of farmers. It is imperative to realize agricultural mechanization from the angle of raising agricultural comprehensive production capacity and increasing farmers' income.

(3) Agricultural Mechanization is the objective requirement of the overall Development of Urban and Rural areas

With the continuous development of the new socialist countryside and the continuous strengthening of the overall development of urban and rural areas, a large number of rural labor forces are transferred, the demand for agricultural machinery is more urgent, and the demand for agricultural machinery grass-roots service organizations is higher. At present, agricultural machinery grass-roots service organizations are still in a loose, small-scale state, affecting the role of agricultural machinery. In view of this situation, we should innovate the concept of agricultural machinery service organization, adhere to the market-oriented approach, and establish a new type of agricultural machinery service organization in accordance with the basic thinking of "setting up measures

according to local conditions, pluralistic establishment, government support, and market operation". The construction of a new agricultural machinery service organization system has been put on the important agenda. On the basis of consolidating and developing the two-level agricultural machinery operation service team and the agricultural machinery professional cooperative, a special service point for the basic level of agricultural machinery has been established in order to promote the marketization, socialization and industrialization of Agricultural Machinery Service, promote agricultural mechanization good and rapid development. The "special service point" is required to do a good job in information service, technical service, maintenance service and operation service, to give full play to the role of publicity and promotion, to demonstrate the role of extension, to coordinate the role of communication, and to make great efforts to promote the healthy development of agricultural mechanization.

(4) Developing Agricultural Mechanization is an important content of Building a New Socialist Countryside

The extensive use of agricultural machinery in agricultural production is not only conducive to saving costs and increasing efficiency, but also conducive to expanding the channels of increasing farmers' income and promoting peasants' well-being. Farmers operating combine harvester, generally 3 years can be recovered investment, the benefit period in more than 5 years. In addition, the development of agricultural mechanization can not only use agricultural machinery to participate in the construction of rural roads, river dredging and other infrastructure construction, effectively promote the clean and tidy village, but also conducive to the promotion of agricultural industrialization. Promote farmers' quality and the degree of organization of agricultural production, promote the civilization of rural style and the democracy of management. At present, many large agricultural machinery households have become rich to build a well-off and new rural leaders.

(5) Developing Agricultural Mechanization is an urgent need to construct Modern Agriculture

Agricultural mechanization is the material basis of modern agriculture and an important symbol to measure the development of modern agriculture. The popularization and application of new technologies such as deep ploughing, deep application of chemical fertilizer, water-saving irrigation, precision sowing, facility agriculture, high-efficiency harvesting technology and so on can be achieved only by using agricultural machinery as the carrier and through the power, accuracy and speed of the machinery. Harvest, drought and waterlogging, large-scale pest control and so on in agricultural production, need to rely on mechanization operation. The use of agricultural machinery can greatly improve the efficiency and quality of agricultural production, and save seeds, water-saving, fertilizer-saving, medicine-saving, saving labor, reducing production costs and reducing pollution. The transplanting efficiency of rice transplanting machine is 20 times that of artificial rice transplanting, the cost is reduced by 30 yuan per mu, the yield is more than 25 kg, and the resistance to diseases and insect pests is good, and the lodging resistance is good. Mechanical fertilization and high performance plant protection spraying can save 40% fertilizer and 35% pesticide respectively. In arid areas, mechanical conservation tillage increased soil water storage by an average of 17% and increased grain yield by 14%. The development experience shows that the realization of agricultural modernization is based on agricultural mechanization, and there is no agricultural modernization without agricultural mechanization. At present, the agricultural foundation of Yicheng is still weak, the means of production and the level of agricultural productivity are still relatively low, and there is an urgent need to develop agricultural mechanization and equip agriculture with modern material conditions. We will further strengthen the comprehensive agricultural production capacity and the ability to prevent and resist disasters in agriculture.

(6) Developing Agricultural Mechanization is the inevitable result of the transfer of Rural Labor Force

With the advancement of industrialization and urbanization, a large number of rural labor forces have been transferred, most of which are young people with a certain culture. In rural areas, some elderly people and women are engaged in agricultural production, and in varying degrees there is a

shortage of manpower in rural work. Leading to the agricultural production of some links are unable to take into account, more extensive management, land productivity, labor productivity can't be effectively improved. With the reduction of the young labor force left in the countryside, it is of great significance to accelerate the promotion of agricultural mechanization to solve the problem of insufficient labor capacity and shortage of agricultural labor force in rural areas.

(7) Developing Agricultural Mechanization is an effective way to build a well-off Society in an all-round way

The difficulties of building a well-off society in an all-round way focus on rural areas. Agricultural mechanization can greatly reduce the labor force of land cultivation, improve the production and living conditions of farmers, and share the achievements of material civilization and spiritual civilization in modern society. At the same time, agricultural mechanization is conducive to promoting agricultural cost-saving and increasing efficiency, widening the way of increasing farmers' income, narrowing the gap between urban and rural areas, workers and farmers, and constantly improving the quality of life and level of farmers.

Analysis of the Causes of Existing problem

The main factors affecting the development of agricultural mechanization include labor force, land resources and so on. In this paper, the influence of these factors on the development of agricultural mechanization will be deeply analyzed.

Factors in the Labor Force.

(1) The small-scale benefit of agricultural production is low, which hinders the development of agricultural mechanization.

Agricultural production has strong seasonality in time and large dispersion in space, which makes its demand for labor force with great instability. As the land area is so limited that the arable land area is limited, the existence of a large number of rural labor forces will inevitably lead to the decentralized management of land, and the scale of land will be smaller and smaller with the increase of population and the increase of farmers. With the development of economy, the level of agricultural productivity is constantly improving, but without the concentration of land, it is impossible to realize the scale benefit of agricultural production. And the cost of small-scale agricultural production will inevitably increase with the improvement of agricultural modernization level. When the marginal labor productivity of farmers is zero or even negative, it will inevitably result in less planting or no planting, even the abandonment of cultivated land, thus affecting grain production and endangering food security, thus hindering the development of agricultural mechanization.

(2) The influence of a large number of surplus Labor Force and the hindrance to the implementation of Agricultural Mechanization

The purpose of agricultural mechanization is to replace human and animal power with mechanical power, to improve agricultural productivity, to release more labor force into the secondary and tertiary industries, and to contribute to the development of the national economy. The premise is that urban enterprises can provide a considerable number of jobs in order to absorb rural surplus labor, or to adapt to the change of population structure, and to promote the development of national economy better.

(3) The low per capita income of farmers affects their input to land and hinders the development of agricultural mechanization.

Farmers' income includes the income of agricultural industry and the wage income of non-agricultural industry, as well as the policy payment of the state to farmers. The benefit of agriculture is low, and the difference between workers and peasants is serious. Combined with the fact that the supply of agricultural products exceeds demand or the supply and demand balance between supply and demand at present, farmers' income growth is slow or even negative, and farmers simply cannot buy the necessary machinery and equipment for agricultural production. However, the comprehensive, decentralized, seasonal and regional nature of agricultural production determines that

it needs a large number of agricultural machinery varieties, so a large amount of funds must be invested in order to realize agricultural mechanization. If farmers lack investment in agricultural production, production will shrink, and a large number of farmers will be stranded in small plots of farmland, unable to smoothly transfer to secondary and tertiary industries, thus seriously hindering the development of agricultural mechanization.

Factors of Land.

Chinese rural household contract operation, small-scale operation. Although the ownership of the land and the right to use it were separated, and the enthusiasm of farmers was greatly mobilized, it played a great role in the prosperity of our country's rural economy. However, it also has great limitations. The average distribution of land according to the population has made the plots too fragmented and modern mechanical farming practices difficult to popularize, thus leading to the maintenance of the original farming practices of small-scale farmers in many places, which has greatly hindered the improvement of agricultural labor productivity. It hinders the application of agricultural machinery in agricultural production and restricts the development of agricultural mechanization.

Suggestions on the Development of Agricultural Mechanization

To Raise the Awareness of the Importance of Agricultural Mechanization and Strengthen the Propaganda Acknowledgement.

Agricultural mechanization is not only a matter for the agricultural machinery department, but must be attached importance to by leaders at all levels and supported by all relevant departments. Agricultural mechanization should be included in the target management of governments at all levels and on the agenda of government work. Governments at all levels should take agricultural mechanization as a strategic measure to develop rural economy, increase peasants' income and build a new socialist countryside. It is necessary to strengthen propaganda and education, stimulate the enthusiasm of the masses of peasants for the use of new agricultural machinery and tools, and enhance their understanding of the new technology.

Strengthening Infrastructure Construction.

It is necessary to focus on the construction and improvement of rural roads, mechanical roads, aqueduct networks, and field-soil reconstruction of Gully Dam, to improve production conditions, to improve the complete coefficient and mobility of agricultural machinery operations, and to give full play to the effectiveness of agricultural machinery. At the same time, it can also greatly improve the ability to resist natural disasters.

Increase Policy Support.

First, the provincial and municipal governments should set up special funds for purchasing subsidies for agricultural machinery, try their best to increase subsidies for purchasing machinery, increase farmers' enthusiasm for purchasing machinery, and support the development of agricultural mechanization. Second, the provincial and municipal finance brings the funds of "training, promotion, safety management" into the annual budget every year, and supports the agricultural machinery management department to do a good job in the integrated management work. Third, through policy preference and support, the financial sector should be encouraged to increase financial support and loan business, to promote support for farmers and agricultural production and operation organizations, to use advanced and applicable agricultural machinery, and to comprehensively improve the level of agricultural mechanization operations.

Agricultural Machinery Management Department Strengthens its Own Construction.

The first is to further change the concept, change the work style, innovate the working mechanism, accurately master and apply the various provisions of the law, and improve the ability and level of administration in accordance with the law. Second, we should standardize the safety supervision mechanism of agricultural machinery, further improve the overall quality of the team and the level of law enforcement, strive to reduce the incidence of agricultural machinery accidents, and ensure the

safety of agricultural machinery production. The third is to further strengthen the agricultural machinery product testing and identification, improve the detection means, further improve the identification and detection ability. Fourth, strengthen the agricultural machinery product quality supervision and management, establish and improve the agricultural machinery product quality complaint supervision system, crack down on fake and inferior agricultural machinery products, strengthen the management of the agricultural machinery maintenance market, and effectively safeguard the legitimate rights and interests of farmers; At the same time, it is necessary to maintain the market order of agricultural machinery operation and create a good development environment for agricultural machinery socialized service.

Acknowledgements

This research was supported by the Research Center of Rural Social Management Innovation in Hubei Province in China (Grant No. HNC2015003).

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