



Mustard Agricultural Insurance Product Design in the Context of Common Wealth: Taking Zhejiang Province as An Example

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ABSTRACT:

Capsicum agricultural insurance is a new type of product to protect farmers' income in recent years, food security is vital to the stability of national security, farmers' economy is also a factor that can not be ignored in the sustainable development of China's economy. At this stage, all kinds of agricultural insurance emerges, the heat is rising, but its system, mode, mechanism is still to be improved, only in the embryonic stage. This paper is based on literature research, through the analysis of the existing agricultural insurance law, to further explore its problems, and take mustard as an example, to build a new type of mustard agricultural insurance products. Finally, in order to explore the development path of crop income insurance suitable for China's national conditions, this paper puts forward suggestions from the following seven aspects: clarifying the positioning of agricultural products, grasping the boundaries of agricultural products' adaptation, strengthening the policy support, formulating the standard model, strengthening the construction of infrastructure, perfecting the reinsurance system, and doing a good job in the assessment standard. This study hopes to provide a certain reference for the study of agricultural insurance product design.

Keywords: common wealth; mustard; agricultural insurance

1. Introduction

China is a country prone to natural disasters, all kinds of disasters (drought, flood, wind and hail and freezing, etc.) cause hundreds of billions of dollars of economic losses to the country every year, and the government has to invest huge amounts of money every year for disaster prevention, relief and resistance. On May 29, 2019, the eighth meeting of the Central Committee for Comprehensively Deepening Reforms considered and agreed in principle to the "Guiding Opinions on Accelerating the High-Quality Development of Agricultural Insurance". In 2021, in order to further improve the work of agricultural insurance premium subsidies, enhance the performance of the use of financial funds, and promote the high-quality development of agricultural insurance, combining with the work practice in recent years and the new situation and new requirements, the Measures for the Administration of Premium Subsidies for Agricultural Insurance of the Central Government, which was formulated in 2016, was revised, and a new Measures for the Administration of Premium Subsidies for Agricultural Insurance of the Central Government was formed.

In 2022, the national grain sowing area was 118.33 million hectares, an increase of 0.7 million hectares over 2021, an increase of 0.6% year-on-year; all kinds of natural disasters throughout the year caused 112 million people to be affected by the disaster, the area affected by crops was 120,716,000 hectares, and the direct economic loss was 238.65 billion yuan. The exploration and design of agricultural insurance can, on the one hand, help strengthen the management of agricultural insurance premium subsidy funds and improve the level of agricultural insurance data and information services; on the other hand, it can accelerate the high-quality development of agricultural insurance, improve the agricultural support and protection system, help revitalize the countryside, and serve to guarantee national food security.

As a result of rising global temperatures and recurring unfavorable weather conditions, two thirds of the world's land is experiencing drought stress[1]. The quality of agricultural production has been greatly reduced. As a basic industry in China, agriculture is also a part of the national economy that cannot be ignored, and its development directly affects the stability of the social order as well as the development of the economy[2]. The development of agriculture directly affects the stability of social order and economic development. Under the new normal, our country has been committed to solving the "three rural" problem[3,4]. In the new normal, China has been committed to solving the "three rural" problem and building our society into a sustainable one. 2022 Central Document No. 1 specifically points out two bottom-line tasks, one is to guarantee national food security and not to return to poverty on a large scale, and strive to improve the food self-sufficiency rate, and firmly grasp the food bowl in their own hands; the second is to focus on rural development, and continue to deepen the supply-side structural reform of the countryside, with the central government further tilting its investment to the countryside, and increasing the strength of policies benefiting agriculture, centering on farmers' income increase. Increase income, increase the strength of policies to benefit farmers. According to relevant statistics, China's mustard planting area is about 100hm²[5]. The output of mustard has reached 4500t, and the value of mustard has reached 200 billion RMB[6]. From this, we can see that mustard has a more important position in our people's daily life, at the same time, mustard because of its own characteristics, has become a powerful assistant for the development of agricultural innovation. However,

because China's crop insurance is still in the embryonic stage, the government part of the strong promotion of agricultural development, but for crop insurance is not a clear plan, the development of the system is not clear, crop insurance promotion mode is not mature.[7] The development system is not clear, and the promotion mode of crop insurance is immature. Based on this, this paper firstly reviews the relevant crop insurance literature, and then further analyzes its problems, and then summarizes its difficulties, and finally discusses the design of mustard agricultural insurance and related countermeasures.

2. Literature review

2.1 Significance and Impact of Agricultural Insurance

At this stage, China is in a historical period from the traditional dispersed small farm operation to the transformation of large-scale planting mode, the central government of the past three years, Document No. 1 successively stressed that "improve the rural business management system, strengthen the land transfer and large-scale operation of management services, the number of new large-scale business subjects is developing rapidly, the large-scale business subjects to invest in agriculture costs, highly sensitive to risk, and strong demand for income protection[8-10]. The demand for income protection is strong, so the development of income insurance is in line with the market needs and the national agricultural policy orientation[11]. At present, China's planting insurance is mainly based on crop cost insurance, and the product system is relatively simple, unable to meet the diversified needs of agricultural producers[12]. Although many companies have begun to explore price insurance in recent years, the product design is relatively single, the pilot scope is limited, and it has not been popularised for the time being[13]. Income insurance not only meets the market demand, but also a more advanced form of agricultural insurance products, should be encouraged to explore the pilot, so that China's agricultural insurance product system is becoming more and more perfect, but also this is the meaning of the supply-side structural reform.

In recent years, the state for grain and other important agricultural products for the implementation of the minimum purchase price and temporary storage policy, which promotes agricultural production, farmers increase income has played an important role, but also brought the price and supply and demand relationship is detached from the problem, the role of the market allocation of resources has not been given full play. Crop income insurance is considered abroad as the optimal way to stabilise farmers' income and market prices. Through insurance, a market-based means of agricultural support, so that the agricultural price formation mechanism back to the market, not only can protect the farmers' operating income, but also better play the role of the market in price formation, thus avoiding price distortion caused by policy intervention. Broadening the coverage of agricultural insurance is in line with the national orientation of adjusting and improving the yellow box policy and supporting the expansion of the "green box" policy, so as to achieve both direct agricultural subsidies and agricultural insurance[14].

2.2 Differences in farmers' preferences for insurance products

Farmers have different preferences for agricultural insurance[15]. Farmers prefer agricultural insurance that covers a wide range of risks, including output price declines and input cost risks; farmers who have suffered from plant pests and diseases are willing to pay a higher cost for insurance with high indemnity ratios and a wide range of crops covered; and full-time and large-scale farmers prefer insurance products with low complexity in the claims process[16]. Farmers with less experience and higher incomes preferred "60% full-cost insurance products". Farmers with less specialization and less diversification preferred "full-cost insurance products". In contrast, more educated farmers preferred the "value insurance product". Farmers' use of agricultural insurance is positively correlated with cooperatives, and the main purpose of purchasing agricultural insurance is to reduce production risks. Education level, access to technical assistance, use of management tools, and farm size all positively affect the probability of adopting agricultural insurance. In addition, farmers who produce soybeans or corn are more likely to use agricultural insurance. On the other hand, the higher a farmer's propensity to take risks, the less likely he or she is to use insurance[17].

By interpreting the relevant literature, we find that agricultural insurance has a significant positive impact on agricultural production, as well as influencing farmers' production behavior and promoting farmers' income. The conclusions of most of the literature indicate that agricultural insurance is important for agricultural sustainability. However, most empirical articles study the impact of agricultural insurance on agricultural production from the macro level, and few scholars study specific agricultural insurance implementation methods. There is a lack of understanding of the development and extension mechanisms of agricultural insurance. In addition, few literatures include three different subjects, i.e., the government, insurance companies and all farmers. Therefore, based on the previous literature, this paper combines the background of the current situation, takes Zhejiang Province as an example, analyzes the role of agricultural insurance from multiple perspectives, and puts forward some suggestions for the three different subjects, hoping to contribute to the design of new mustard agricultural insurance.

2.3 Status of Agricultural Insurance in Zhejiang Province

Zhejiang is located on the eastern coast of China. With a lot of rain and rivers, natural disasters are frequent. Typhoons, floods and landslides, mudslides, snowstorms, low-temperature freezes and other disasters have occurred to varying degrees. In Zhejiang the basic principle of the operation of the insurance mechanism is that the premiums paid by the majority of the population are used to compensate the minority of those who have an insured accident. However, not all risks are insurable. Among the conditions for insurable risks, two of them are not met by price risks. Firstly, the losses cannot occur at the same time. If the subject matter of the insurance is damaged at the same time, the function of insurance to apportion the loss is lost. Capsicum price decline, for all farmers is the risk of loss at the same time, insurance can not share the loss. Therefore, caper target price insurance pilot areas are generally

taken "price insurance + futures" approach, that is, the insurance company can not be covered by the price risk through the put option trading transferred to the futures market. Second, the risk cannot be speculative risk. Speculative risk refers to the risk of both the possibility of loss and the opportunity to make a profit. Price risk is speculative risk; when caper prices fall, farmers are damaged; when caper prices rise, farmers benefit. For speculative risk, it is easy to produce the policyholder's adverse selection problem, that is, when the farmers expect the end of the caper price drop when the competition to insure, then all go to claim; but when the expected future caper price rise, there are few people willing to insure or even no one insured, resulting in the insurer of the price of the insurance can not be sustained business.

2.4 Status of insurance for capers

At present, there is insufficient innovation in agricultural insurance products of special characteristics, and agricultural types of insurance are relatively complete, but the categories are scattered and small in scale, and there is a lack of staggered development and product innovation, resulting in the homogenization of agricultural insurance products and the phenomenon of imitation and replication. This has led to problems such as mixed insurance market, incomplete deployment of rural institutions, failure to keep up with services after insurance, and cumbersome procedures for handling and settling claims. With the gradual increase in the number of local insurance companies operating agricultural insurance, it is easy for too many business entities to compete for limited business resources and generate unfair competition. As individual insurance companies do not have a full set of rural institutions and cannot afford to invest more, and lack experience in agricultural insurance, they are unable to keep up with the service after an accident, which damages the image of agricultural insurance and the enthusiasm of farmers. In the traditional sense of special agricultural insurance, most of the offline insurance, processing, claims procedures are cumbersome, there are time-consuming and other issues, coupled with farmers are not familiar with the specialized and complex insurance policies, insurance terms, resulting in low willingness of farmers to participate in the insurance.

3. Necessity and advantages of developing agricultural insurance

Firstly, it plays a complementary role to China's existing agricultural insurance system. In China's agricultural insurance, policy insurance is to protect the minimum conditions of survival of farmers for the purpose of playing the role of "snow in the charcoal"; commercial nature of agricultural insurance is based on the individual wishes of farmers to carry out a pursuit of return on investment behaviour, playing the role of "icing on the cake"; then agricultural mutual insurance flexible and diversified mutual aid mode plays a complementary role. Commercial agricultural insurance is an investment behaviour based on farmers' personal wishes, which plays the role of "icing on the cake"; and the flexible and diversified mutual aid mode of agricultural mutual insurance plays the role of "picking up the pieces". The three together form part of the agricultural insurance system for poverty alleviation.

Secondly, it is flexible and simple to operate. Due to the unbalanced economic development among poor areas, different industries and enterprises can flexibly establish insurance types and claim settlement methods in accordance with the principle of voluntariness. This kind of insurance is undoubtedly more advantageous than the general model of "farmers take out insurance and pay out claims in case of disasters".

Thirdly, agricultural insurance rates are low. China's poverty-stricken areas of agriculture are mostly family-run, small-scale, certainly the family's agricultural income is also low, so to let farmers buy for profit for the purpose of the commercial nature of the agricultural insurance, its premiums are higher, while the agricultural mutual aid insurance to mutual relief for the principle of not needing full-time staff, not for the purpose of making profits, the operation of the management of the cost of low, so its premiums are low, so that more poor agricultural families have the ability to buy mutual aid insurance. ability to purchase mutual insurance.

Fourthly, while improving the ability to cope with agricultural risks, it improves spiritual civilisation and reduces the moral risk and adverse selection behaviour of agricultural mutual insurance. Participants in mutual agricultural insurance are all poor farmers in the same region. Since agricultural production in the same region faces homogeneous risks, farmers actively exchange technology and discuss risk prevention and response measures through mutual assistance and cooperation, which reduces the losses caused by agricultural risks and at the same time improves agricultural technology; farmers in mutual assistance and cooperation are more familiar with each other, and they share the same interests and goals, and the spirit of mutual assistance and cooperation among farmers creates harmony and warmth. The spirit of mutual assistance and cooperation between farmers has created a harmonious and warm atmosphere, and mutual supervision and self-restraint have greatly reduced the occurrence of moral risk and adverse selection behaviour.

Fifth, agricultural insurance can improve insurance coverage for farmers. Mutual agricultural insurance draws on the advantages of commercial and social policy insurance, avoids the shortcomings of both and is highly usable. Most farmers in poor areas of China are resistant to insurance of this nature because they do not know the terms of commercial insurance and because of the shortcomings of this type of agricultural insurance, such as difficulty in settling claims, difficulty in determining losses, and susceptibility to moral hazard. But if farmers have mutual insurance, they can get real democratic rights, and the role of each farmer in agricultural insurance is the policyholder, beneficiary and insured, and farmers feel that the sense of trust and controllability has been greatly enhanced, and this convenient and efficient new model of rural grassroots insurance has improved the recognition of insurance by farmers and increased the agricultural population's insurance. This convenient and efficient new model of rural grass-roots insurance has improved farmers' acceptance of mutual insurance and increased the insurance coverage of the agricultural population.

4. Exploration of development ideas for agricultural insurance

From the previous section, it can be concluded that China's agricultural insurance is in the embryonic stage of development, the future of agricultural insurance planning and development system is not clear, most people do not have a clear understanding of this, and various problems emerge. Based on this situation, this part is based on the in-depth understanding of China's agricultural crop insurance, combined with the local geographic and social environment, to explore the development problems that exist.

4.1 Improvement of agricultural insurance service capacity

Expanding agricultural insurance coverage. Push forward the pilot reform of policy-based agricultural insurance, enhance the intrinsic attractiveness of agricultural insurance products on the basis of the implementation of the strategy for safeguarding important agricultural products, steadily expand the coverage of insurance for large agricultural products that have a bearing on the people's livelihood and national food security, and increase the rate of small farmers taking out agricultural insurance to achieve the full coverage of the willingness to take out insurance. Explore innovative farming insurance models and financial support methods relying on farming enterprises and large-scale farms (households), and improve the enthusiasm of insurance organizations to carry out farming insurance. Encourage localities to carry out insurance for agricultural products with advantageous characteristics according to local conditions, and gradually increase the proportion of such products in agricultural insurance. Adjust and improve the forest and grassland insurance system in due course, and formulate relevant management methods.

Improving the level of agricultural insurance coverage. In conjunction with the structural adjustment of the agricultural industry and changes in production costs, a dynamic adjustment mechanism for the level of agricultural insurance coverage has been established; on the basis of covering the direct physical costs of agricultural production, the pilot scheme of agricultural catastrophe insurance has been expanded, and the level of coverage has been gradually raised. Push forward the pilot projects of full-cost insurance and income insurance for rice, wheat and corn, and promote agricultural insurance to "guarantee price and income", and to guard against the dual risks of natural disasters and market changes. Promote income insurance in a steady and orderly manner, so as to stabilize the income of farmers. Broadening the service area of agricultural insurance.

To meet diversified risk protection needs, explore the construction of an agricultural insurance product system that covers financially subsidized basic insurance, commercial insurance and additional insurance. It has steadily promoted index insurance, regional yield insurance and agriculture-related insurance, explored the development of comprehensive insurance packages, and included agricultural production facilities and equipment such as agricultural machinery sheds and farm warehouses in the scope of coverage. Develop insurance products that meet the needs of new agricultural business entities. Innovate and carry out environmental pollution liability insurance and agricultural product quality insurance. Support the development of short-term accidental injury insurance for farmers. Encourage insurance organizations to provide better insurance services for agricultural foreign cooperation. Incorporate agricultural insurance into the agricultural disaster prevention and relief system, and give full play to the function of insurance in risk prevention beforehand, risk control during the incident, and claims service afterwards.

Implementing measures to facilitate and benefit the people. Implementing the national policy of strengthening and benefiting agriculture and enriching agriculture, effectively safeguarding the interests of insured farmers and agricultural production and management organizations, fully protecting their right to know, and promoting the popularization and standardization of agricultural insurance terms. Insurance organizations should make the "five disclosures" of agricultural policies, underwriting, claims results, service standards, and regulatory requirements, make loss determination to the household, claim settlement to the household, do not hesitate to pay claims, do not delay claims, and effectively improve the efficiency of underwriting and claim settlement, and improve the scientific, accurate, and efficient mechanism for surveying and determination of losses. Localities are encouraged to establish loss-approval committees in accordance with local conditions, and insurance organizations are encouraged to implement a no-claims policy.

4.2 Optimizing the operational mechanism of agricultural insurance

Clarify the boundary between government and market. Local governments at all levels are not involved in the specific operation of agricultural insurance. On the basis of fully respecting the operational autonomy of insurance institutions in product development, actuarial pricing, underwriting and claims handling, they will mobilize the enthusiasm of market players by providing necessary support in the form of premium subsidies, catastrophe payouts, and the provision of information and data. Grass-roots government departments and relevant units may assist in agricultural insurance operations in accordance with the relevant regulations.

Improving the mechanism for dispersing catastrophic risks. Accelerating the establishment of a multi-party, risk-sharing, multi-layer and decentralized mechanism for dispersing catastrophe risks in agricultural insurance with financial support. Implement a catastrophe risk reserve system for agricultural insurance, and enhance the ability of insurance organizations to cope with agricultural catastrophe risks. Increase the supply of agricultural reinsurance, expand the underwriting capacity of agricultural reinsurance, and improve the reinsurance system and reinsurance mechanism. Reasonably define the market positioning of insurance institutions and reinsurance organizations, and clearly delineate the respective responsibilities and obligations of the central and local governments.

Cleaning up and standardizing the agricultural insurance market. The supervision of financial subsidy funds will be strengthened, and insurance organizations that fraudulently obtain financial subsidy funds will be dealt with in accordance with the law, and joint disciplinary measures for breach of trust will be implemented. Further standardize the order of the agricultural insurance market, reduce the operating costs of agricultural insurance, increase

penalties for insurance institutions with unrealistic capital, insufficient arrangements for catastrophic risks, false underwriting, false claims, etc., and resolutely withdraw from the agricultural insurance market in accordance with the law for insurance institutions that fail to meet the basic operating requirements, and those that have committed major violations and major hidden risks.

Encourage the exploration of "agricultural insurance plus". Establish and improve the cooperation mechanism between insurance organizations and disaster forecasting, agriculture and rural areas, forestry and grassland departments, and strengthen the synergistic use of agricultural insurance compensation funds and government disaster relief funds. Promote the linkage of agricultural insurance with credit, guarantee, futures (rights) and other financial instruments, expand the pilot program of "insurance + futures", and explore the pilot program of "order agriculture + insurance + futures (rights)". The establishment of a sound rural credit system, through the credit-enhancing function of agricultural insurance, will improve the credit rating of farmers and alleviate the problem of "difficult and expensive loans" for farmers.

4.3 Strengthening the agricultural insurance infrastructure

Improving the mechanism for formulating insurance terms and rates. It has strengthened research on agricultural insurance risk zoning, constructed risk maps for agricultural production, issued pure risk-loss rates for agricultural insurance, and studied and formulated model terms and conditions for insurance of major crops, major livestock, important varieties of vegetables and grasslands, providing technical support to insurance organizations for product development and rate adjustments. A scientific mechanism for the formulation and dynamic adjustment of insurance premium rates has been established to achieve differentiated pricing based on regional risks and to truly reflect the risk profile of agricultural production.

Strengthen agricultural insurance information sharing. Increase investment and continuously improve the level of agricultural insurance informationization. Gradually integrating agriculture-related data and information from finance, agriculture and rural areas, insurance supervision and management, forestry and grassland departments, and insurance institutions, it has dynamically grasped the situation of insured farmers and agricultural production and management organizations, and has prevented, at the source, such acts as falsification and fraudulent acquisition of financial subsidy funds.

Optimizing the layout of insurance institutions. Support insurance organizations to establish a sound grass-roots service system and effectively improve insurance services. Insurance organizations operating policy-oriented agricultural insurance business should set up branches in county-level areas. Develop a nationally unified bidding method for agricultural insurance and strengthen the standardized management of insurance institutions. Each region shall take into account the actual situation of its own region and establish a bidding and dynamic appraisal system for insurance institutions oriented on service capacity. Insurance organizations such as agricultural mutual insurance established in accordance with the law may carry out agricultural insurance business in accordance with regulations.

Improve the risk prevention mechanism. Reinforcing the main responsibility of insurance institutions to prevent risks, adhering to prudent management, improving risk early warning, identification, control and management capabilities, increasing investment in prevention, and improving risk prevention and emergency response mechanisms. Supervise insurance institutions to strictly abide by financial accounting rules and financial regulatory requirements, strengthen solvency management, and ensure sufficient risk-absorbing capacity. It has strengthened the corporate governance of insurance institutions, refined and improved the internal control system, and effectively prevented and resolved various types of risks.

4.4 Doing a good job of organizing and implementing the work

Strengthening synergy. All regions and relevant departments should attach great importance to accelerating the high-quality development of agricultural insurance, strengthen communication and coordination, and form a synergy of work. The Ministry of Finance, together with the Central Agricultural Office, the Ministry of Agriculture and Rural Development, the China Banking and Insurance Regulatory Commission, the State Forestry and Grassland Administration and other departments have set up a working group on agricultural insurance for the purpose of coordinating the planning and promoting the work of agricultural insurance in a synergistic manner. The relevant ministries need to urgently formulate relevant supporting measures to ensure that the policies are put in place. Party committees and governments at the provincial level should organize and formulate work programmes, set up working groups on agricultural insurance led by the financial sector, with the participation of departments such as agriculture and rural areas, insurance supervision and forestry and grassland, determine the financial support policies and priorities of agricultural insurance in the region, and promote the work of agricultural insurance in a coordinated manner.

Increasing policy support. Optimizing the financial support policy for agricultural insurance, exploring ways to improve agricultural insurance subsidies, and strengthening the integration of agricultural insurance and related financial subsidy policies. The premium subsidies for agricultural insurance from the central government will focus on supporting functional food production zones and important agricultural production reserves, as well as deeply impoverished areas, and will gradually tilt towards safeguarding market risks. For insurance of local advantageous and characteristic agricultural products, the central fiscal authorities will support the implementation of awards in lieu of subsidies. When formulating industry planning and related policies, agriculture, rural areas, forestry and grasslands departments should focus on guiding and supporting the development of agricultural insurance, promoting the innovation of agricultural insurance products by insurance institutions, encouraging and guiding farmers and agricultural production and management organizations to participate in insurance, and helping insurance institutions to effectively identify and prevent agricultural risks.

Create a favorable market environment. Deepen the reform of "release management and service" in the field of agricultural insurance, and improve the system of agricultural insurance regulations and policies. Study the establishment of agricultural insurance publicity, education and training programs.

Give full play to the role of insurance industry associations and other self-regulatory organizations. Increase supervision and inspection in the field of agricultural insurance, establish a regular inspection mechanism, make full use of the resources of the CBIRC's dispatching agencies, strengthen grass-roots insurance supervision, severely investigate and deal with violations of laws and regulations, and strictly hold the relevant departments and personnel accountable for abuse of power, negligence, favoritism and ineffective investigation and handling, and resolutely investigate and hold them criminally responsible for crimes that constitute a violation of the law.

4.5 Improvement of reinsurance and catastrophe risk diversification system

As crop revenue insurance has the dual protection function of compensating for yield losses and price losses, under the objective conditions of not yet having the "risk hedging effect" of the two, crop revenue insurance has a higher degree of risk aggregation and greater difficulty in risk diversification, and once hit by a catastrophe, it is likely to lead to excessive claims, which will affect the stable operation and sustainable development of the entire agricultural insurance market. The stable operation and sustainable development of the entire agricultural insurance market. Therefore, it is necessary to build a perfect agricultural reinsurance and catastrophe risk dispersion system, specifically: first, continue to improve the agricultural reinsurance system, give full play to the main role of China Agricultural Reinsurance Company Limited, and appropriately increase the minimum proportion of reinsurance purchased by insurance institutions; second, establish a national catastrophe risk fund to escort the wide-scale promotion of crop income insurance, and the national catastrophe risk fund should be funded by the financial sector, agricultural sector, and the government. The national catastrophe risk fund should be led and initiated by the financial department, agricultural department, CBIRC, etc. Provincial financial departments and insurance institutions should also inject capital, and it should be managed by a special dispatching agency; third, drawing on the experience of the development of crop income insurance in the United States, actively hedge risks with the help of the futures market, give full play to its price discovery and hedging functions, and transfer the income risk to the futures market for hedging.

4.6 Building a performance evaluation and feedback mechanism for crop revenue insurance

At present, China's crop revenue insurance has not yet constructed a mature institutional system, product model and operational mechanism, and there are still many operational aspects that need to be improved. In this context, provincial agricultural insurance authorities should establish a performance evaluation and feedback mechanism for crop revenue insurance under their jurisdiction as soon as possible, and regularly assess the pilot operation of crop revenue insurance, focusing on the following: first, the scientific and reasonable nature of product design, focusing on solving the problem of deviation in rate setting, with the purpose of timely adjusting the rate of revenue insurance so as to make it more in line with the local agricultural The second is the risk protection ability of the product, which needs to be compared with the traditional cost insurance to examine whether crop revenue insurance has truly realized the leap from "cost insurance" to "income insurance"; the third is the service ability and operation level of the insurance organization, which will be Third, the service capacity and operation level of insurance institutions, taking business compliance, grassroots network construction, professional staffing, and farmers' satisfaction as key assessment indicators; fourth, the participation of government departments at all levels, examining the rate of arrival of premium subsidy funds and the degree of intervention in the agricultural insurance business, and focusing on exposing the "setting up of rents" and "rent-seeking", premiums receivable, and the "risky" and "unprofitable" nature of crop income insurance. Fourth, the participation of government departments at all levels will be examined, as well as the rate of receipt of premium subsidy funds and the degree of intervention in the agricultural insurance business, with a focus on exposing "rent-setting" and "rent-seeking," premium receivables, and illegal and irregular behavior such as settlement of claims by agreement.

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