

Research on the current situation and countermeasures of clean agricultural production

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Abstract

The agricultural cleaner production is a new pattern of the 21st century agricultural development, for example farmland pollution is more and more serious, agricultural cleaner production legislation is urgently demanded, the government policy - type encouragement is insufficient, the farmer knows a little about this and so on. This article tries to obtain some facts from the agricultural clean production definition with advanced experience of other country, then to solve these problems in our country agriculture cleaner production and put forward the proposal.

Keywords

Agriculture; Clean Production; Soil; Environment.

1. Introduction

With the increasing population, economic prosperity, and industrial expansion of the world, human beings have brought heavy pressure on natural resources and social ecological environment, living environment has deteriorated, land desertification, soil erosion and other ecological crises have further deepened. More and more ecological problems appear and even affect people's lives. In order to prevent the further deterioration of the ecological environment, protect the environment, pay attention to human health, and ensure the survival and development of human beings, seeking a new and clean development model is the realization of future viability. An important means of sustainable development, trying to shift from the previous end-of-line pollution control to a method of preventing pollution in the production process, that is, clean production, which refers to continuously adopting improved designs, using clean energy and raw materials, and adopting advanced technology and equipment, Improve management, comprehensive utilization and other measures to reduce pollution from the source, increase resource utilization, reduce or avoid the generation and discharge of pollutants during production, service and product use, so as to reduce or eliminate harm to human health and the environment.

Cleaner agricultural production refers to the prevention or reduction of various pollution through the regulation of technology, management and monitoring systems in the entire process of agricultural production of raw materials, production processes and products to achieve environmental health and agricultural product safety. At present, the ecological environment problems in our country are mostly concentrated in rural areas. Due to the deterioration of the ecology, various natural disasters frequently occur, and limited agricultural resources have become more scarce, which not only aggravates the degree of poverty in some rural areas, but also increases the economy. And the pressure of social development[1-2]. Therefore, the necessity of developing clean agricultural production across the country is very prominent.

2. Current status and problems of China's agricultural production

China is a large agricultural country. It has long been solving the unreasonable environmental and ecological behaviors of farmers caused by the supply of basic agricultural products[3]. Agricultural growth relies too much on the input of modern chemical compounds such as fertilizers and pesticides, and has no time to take into account environmental problems, resulting in serious agricultural pollution. , The excessive consumption of resources, the excessive use of chemical fertilizers and pesticides, and the excessive development of land have brought huge development to farmers' income and social economy, and at the same time, it has also brought great threats to the sustainable development of people and nature. Serious resource and environmental problems, agricultural pollution is becoming more and more serious[4]. It is mainly manifested in several aspects such as agricultural fertilizer pollution, pesticide pollution, serious land degradation, and the lack of competitiveness of green food.

3. Related measures for foreign agricultural cleaner production

Developed countries such as Europe and the United States attach great importance to the quality of agricultural environment and the safety of agricultural products, and have implemented a legal guarantee system to ensure the quality and safety of agricultural products earlier. There is a complete and reasonable system from laws and regulations to market regulation. The United States put forward the HACCP (Hazard Analysis and Critical Control Point) system in the 1970s, and subsequently implemented the GMP (Good Manufacturing Practice) model in the production field. The pollution of the production area was regarded as the key object of control to reduce the food quality risk to Minimally. In addition, they have strengthened the monitoring of environmental pollution and the quality of agricultural products in the production area, imposed strict restrictions on the use of fertilizers, pesticides and other agrochemicals, and closely linked the sales and use of major agricultural products to the environment of the production area to ensure that they reached The required quality. The development of projects focusing on the research of greenhouse gas emissions includes the "AgSTAR Program" (AgSTAR Program), "Ruminant Livestock Efficiency Program" and the "Water Purification Action Plan" for the prevention and control of water pollution. , Formed a relatively complete policy to guide agriculture and rural development, thereby promoting the benign development of agriculture[6-8].

European countries have a sound agricultural cleaner production system. Germany and some other EU countries provide subsidies to farmers engaged in organic agriculture, and they can get additional compensation if they participate in cleaner production projects. This greatly stimulated the enthusiasm of farmers to promote cleaner production. In terms of legislation, the core is also to explicitly expand food safety management to the entire process of the food chain, covering all production and business links. The concept of "farm to table" was first proposed by Europeans and clearly embodied. European countries also have relevant legal guarantees for cleaner agricultural production [9-11].

4. Countermeasures and suggestions

Although some countries already have complete policies and measures to ensure cleaner production. However, due to the fact that China has a large population and limited land, poor soil, and large planting areas, it is impossible to directly copy other countries' models, and can only learn from and improve some existing models. Academician Zhao Qiguo pointed out: China's agricultural production goals and content can be summarized as the establishment of

"five systems and one guarantee" [11] In the process of promoting cleaner production, some countermeasures can be drawn accordingly.

4.1. Ensuring clean agricultural production

The realization of cleaner production in agriculture must improve the legal provisions and establish a clear, unified and coordinated management system. On the one hand, it must reflect the binding force of the law, and on the other hand, it must mobilize farmers' enthusiasm for implementation through policies, and the establishment of corresponding measures is of real significance. The Agricultural Association of China scientifically allocates the planting area ratios of various agricultural products, and gives farmers reasonable subsidies for the parts that need adjustment. Second, we should increase policy support for agricultural scientific research, and give full support in terms of credit to provide farmers with a financial basis for cleaner production. Finally, attention should be paid to the establishment and promotion of agricultural product quality brands, so that products obtained through agricultural clean production have higher value.

4.2. Increasing publicity of clean agricultural production

On the one hand, it is necessary to carry out the popularization and publicity of environmental protection knowledge, ecological knowledge and agricultural sustainable development knowledge to farmers, and through publicity, make them realize the importance of environmental protection and the harmfulness of agricultural environmental pollution, and enhance the public's awareness of agricultural clean production. The knowledge and understanding made them clearly realize the huge environmental and economic benefits of clean agricultural production. On the other hand, we must teach them scientific farming methods to reduce input costs while cleaning production, increase economic benefits, and increase farmers' enthusiasm for production. The pollution of the agricultural environment is mostly caused by the improper use of pesticides and fertilizers. Therefore, the promotion of clean agricultural production must solve the scientific use of pesticides and fertilizers. In addition, when using pesticides, chemical fertilizers, and agricultural films, the precision agriculture ideas should be reflected, and appropriate amounts should be used to reduce waste.

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