Comprehensive Analysis and Prevention Measures of Continuous Cropping Obstacles in Protected Vegetables

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Abstract: With the rapid development of the times, China's society and economy have shown a rapid and stable development trend, and people's living standards have become higher and higher. In the development process, China has always attached great importance to agricultural production, and invested a lot of manpower and material resources. Financial resources to develop this industry. Judging from the current development situation, the area of vegetable cultivation in China is continuously expanding and showing a year-on-year growth trend. Based on the original planting technology, China has carried out technological optimization and Perfect. The cultivated area of facility vegetables in China is continuously expanding, and it has become the most dynamic industry in China's agricultural planting, which can promote the rapid development of China's planting industry to a certain extent.

1. Introduction

Due to the continuous advancement of science and technology in China, the area of protected vegetable cultivation is also expanding. In recent years, the growth rate of protected vegetable cultivation area in China has exceeded 50%. At present, the protected vegetable cultivation industry in China has been able to drive the production and development of China's agriculture. The expansion of planting area can promote the rapid development of China's economy to a certain extent, but there are also some problems in the specific development process. In recent years, the types of protected vegetable cultivation in China have been very single, coupled with the lack of scientific and reasonable management, direct As a result, the soil environment is deteriorated, which will reduce the yield of vegetables, and the quality of vegetable cultivation cannot be effectively guaranteed, which seriously affects the sustainable development of protected vegetable production in China.

2. Continuous Cropping and Continuous Cropping Obstacles

2.1 Continuous Cropping

Continuous cropping can be understood from two aspects. The first is broad-based continuous cropping, which mainly refers to the continuous cultivation of the same crop or a crop infected with the same germs.In a narrow sense, it refers to continuous cropping on the same land. Planting the same crop. At present, in the process of development of protected vegetables in China, continuous cropping is easy to occur, which will seriously affect the development of China's protected vegetable industry.

2.2 Continuous Cropping Obstacle

The same crop cannot be continuously planted in the same place, that is, it can be scientifically and effectively cultivated and maintained in the later stage, and the problem of low yield is easy to occur.Because the same crop is planted for a long time, the soil environment will become very bad. The quality of the vegetables produced will also become lower and lower, a condition known as continuous cropping obstacles.

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3. Analysis of the Causes of Setting Vegetable Continuous Cropping Obstacles

There are many factors that cause continuous cropping obstacles in the development of facility vegetables in China. The most important of these is the soil factor. Without scientific and effective treatment of the soil factors, it will be difficult to solve the continuous cropping of facility vegetables. obstacle.

3.1 Physical and Chemical Properties of Soil Are Deteriorating

The imbalance of soil nutrients is the most serious problem. In the process of planting vegetable vegetables, due to the high requirements for refinement, a large amount of fertilizer is required in the cultivation process. The process of planting vegetable vegetables in northern China The amount of fertilizer used in the process is much higher than the amount needed by the crops themselves.In the process of planting, the vegetable farmers' understanding of fertilizers is not comprehensive enough, and they have not fully realized the importance of calcium and micro-fertilizers to the soil. During the process, most of them will not use calcium and micro-fertilizer, which will directly cause some elements in the soil to be high, but trace elements will be very scarce. Over time, it will cause soil nutrients to be uneven, and the soil will be prone to physical and chemical properties. Deteriorating conditions.

The accumulation of soil salts is also a very serious problem.The main reasons for the accumulation of soil salts are two reasons. The first is the large amount of fertilization, and the second is the lack of rainfall. Due to the special environment for planting vegetables in facilities, It is in the shed all year round, and the soil cannot be fully washed by rain for many years, which will directly cause salt to accumulate on the surface of the soil. In addition, some vegetable farmers have not carried out scientific and reasonable fertilization, and blind and large-scale fertilization will increase soil salt accumulation The problem of salt accumulation in the soil will increase the concentration of the soil solution, and some crops will cause dysplasia during the growth process, and the salt concentration of the soil will continue to increase, while the salt concentration is increasing. It will severely restrict the activities of soil microorganisms, which will cause crops to fail to fully absorb nutrients. Most of the vegetables grown will have chlorosis of the branches and leaves. If some vegetables and fruits are planted on the land, the fruits may also be deformed.

There is a big difference between facility soil and ordinary open soil, and there may be no obvious difference between the two at the beginning, but with the increase of planting years, the physical structure of facility soil will change significantly, and the ventilation of facility soil Water permeability is generally poor, making vegetables unable to absorb nutrients from the soil in the process of growth and development, which leads to problems such as poor growth and development.

3.2 Deteriorating Soil Biological Environment

Because a crop is planted on the same soil all year round, the soil will form a special environment, which will inhibit the growth and development of organisms to a certain extent. When the soil's microbial area changes radically, its The natural ecological balance will also be destroyed, which will directly lead to the inability of the fertilizer to effectively decompose during the fertilization process, and the soil germs will continue to spread, which will cause serious damage to the crops. Facility vegetables are very important in the development process. The problem of pests and diseases is prone to occur, and once the problems of pests and diseases are spread in a large area.

Because in the process of planting vegetable facilities, some vegetable farmers have not effectively removed the residues of crops, which will cause the crop products to be decomposed in the soil, but some toxins will be produced during the decomposition process, and these Toxins can affect the cultivation of later crops.

Root exudates are substances released by different parts of the plant during growth. The secreted substances have a great relationship with the nutrients in the soil. If the nutrients in the soil are more comprehensive, it will make the secretions more It is nutritious, which can promote the growth and

development of crops, but if the nutrients in the soil are unevenly distributed and lack some necessary elements, this will directly affect the growth of crops, and then cause crop root secretions and continuous cropping obstacles.

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3.3 Improve Cultivation System and Reasonable Rotation

For scientific and effective prevention and control of continuous cropping obstacles in facilities, crop rotation can be adopted. Relevant personnel need to continuously optimize and improve the current cultivation system. If some existing cultivation systems have disadvantages, they must be changed in a timely manner. Relevant areas can carry out vegetable and grain rotation according to actual conditions.For example, in Heilongjiang and other areas, corn can be planted first, and then some vegetables can be planted according to actual conditions. This way can effectively prevent continuous cropping obstacles. And through rotation, it can also Reduce the impact on the soil during the planting process, because the growth and development of some pathogenic bacteria can be effectively cut off by rotation, because some pathogenic bacteria may only be suitable for growing on some crops, but the pathogenic bacteria can be effectively carried out by changing the planting method This method can continuously increase the yield of crops per unit area, and the quality of crops can be effectively guaranteed.

3.4 Improve Cultivation Management Technology

Judging from the current actual development situation, due to the lack of a perfect cultivation management technology in some areas, it leads to very serious obstacles to sitting. In the face of such problems, it is necessary to optimize and improve the current management technology and improve the management awareness of vegetable farmers. Scientific and reasonable fertilization of current crops. First of all, relevant departments should strengthen publicity and education to make vegetable farmers realize the importance of scientific fertilization, and actively promote some green and pollution-free fertilizers, so that vegetable farmers realize that there are two sides to fertilization. It will affect crops, and it will also affect the soil.It is not that the more fertilizer applied, the better the crop growth. It must be scientifically and reasonably allocated according to the actual situation. At present, some vegetable farmers use a large amount of Nitrogen fertilizer, but in the process of using nitrogen fertilizer, it will cause more serious groundwater pollution. Some cities in China already have obvious problems of excessive nitrogen fertilizer use. If nitrogen fertilizer is not controlled anymore, it will seriously affect people's daily water consumption. Excessive dosage will cause accumulation of nitrate, which is a carcinogenicityStrong substances, if ingested for a long time, will have a very serious impact on people's physical health. According to relevant surveys and studies, 80% of the nitrates in the human body are derived from vegetables, which shows that the quality of vegetables for the human body The health impact requires continuous optimization and improvement of current cultivation management techniques and the scientific and rational use of fertilizers.

In the process of using soap, some organic fertilizers can be appropriately added.This method can also effectively reduce continuous cropping obstacles. In the process of using organic fertilizers, some bacteria can be effectively inhibited to prevent the effects of bacteria on crops. At the same time, it can also ensure that the soil is not severely affected.

In the process of facility vegetable planting, irrigation technology is the most important technology. If the irrigation technology is not reasonable, it will lead to the accumulation of nitrate. Therefore, it is necessary to continuously optimize and improve the current irrigation technology and carry out a large amount of planting land. Watering can fully dilute the salt that accumulates on the soil surface. During the planting process, you can also use the film cover to avoid the accumulation of soil salt. By laying the film, you can reduce the evaporation of water and ensure the planting shed. In order to effectively reduce the accumulation of salt on the soil surface, vegetable farmers should choose a suitable planting period during vegetable planting, try to avoid the high incidence of disease, and avoid planting during high temperature during the planting process. If you must plant during high temperatures, you must take some cooling measures before

the high temperature, so as to ensure the quality of the plants.

Because in the process of planting vegetables in a facility, it is repeatedly planted under the same piece of soil, it is necessary to scientifically and effectively treat the plant residues. Scientific treatment can effectively prevent some infected bodies from spreading to the follow-up In the process of planting crops, planters need to regularly disinfect the soil and timely add some nutrients to the soil to ensure that the nutritional distribution of the soil is balanced, so as to effectively improve planting efficiency and ensure the quality of vegetable cultivation.

3.5 Application of resistant varieties

In the process of selecting planting varieties, some resistant varieties can be selected according to actual conditions. At present, many resistant varieties have appeared at home and abroad. These resistant varieties can effectively prevent the occurrence of some diseases and insect pests. Although they can prevent diseases and insect pests to a certain extent, but It does not mean that 100% is completely disease-free, so in the process of planting, scientific cultivation needs to be carried out at a later stage.

4. Future Outlook

In the future development process, China should continuously optimize and improve the infrastructure. Scientifically and effectively control the environment for vegetable cultivation in our country and continuously improve the level of environmental control, so as to ensure the efficiency of the entire planting. The quality of the vegetables produced can also be effectively guaranteed, and the research on products with low temperature, low light, and high temperature resistance must be strengthened. Once these products are researched, they can effectively increase the planting yield. For the problem of nitrite pollution, In addition to strict monitoring of the environment by the relevant departments, and pollution treatment from the source, China can formulate corresponding laws and regulations to protect the environment according to the actual situation, strictly control the use of nitrogen fertilizer, and strictly control the external environment through strict external control. The problem of nitrate pollution, but if we want to solve it fundamentally, we need continuous efforts.

5. Conclusion

In summary, if you want to solve the obstacles of continuous cropping of vegetables in a scientific and effective way, you must thoroughly understand some of the problems in the current planting process and propose practical solutions to the problems so that the problems can be better solved. Vegetable farmers need Improve your overall quality and ability, fertilize scientifically during the planting process, and introduce some more advanced resistant varieties. Planting by rotation in the planting process can effectively prevent some soil problems, thereby improving planting efficiency and ensuring crops The current quality of vegetable cultivation in facilities has become an important pillar of China's agricultural development, and continuous optimization and improvement of the existing planting model can promote its better development. On this basis, China's agricultural political field can also be more rapid development.

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