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Thoughts and Suggestions on the Coordinated Development of Breeding and Environmental Protection

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Abstract Through investigation and analysis, we point out the main problems existing in the control of livestock and poultry breeding pollution in some places, and put forward four suggestions to do a good job in the treatment of livestock and poultry breeding pollution: first, it is necessary to have a fair and objective understanding of the environmental pollution caused by breeding; second, we should cherish resources, control breeding pollution according to local conditions, and stabilize the existing meat production capacity; third, it is necessary to breed scientifically, protect clear water and blue sky, and build a beautiful home together; fourth, it is necessary to breed and manage according to law, and make environmental protection and breeding promote each other.

Key words Breeding, Environmental Protection, Coordination, Harmony

1 Introduction

Environmental protection is the basic national policy of China country. After the implementation of the "one-vote veto" system of political performance assessment, the environmental protection pressure of party committees and governments at all levels is unprecedentedly huge, and some agricultural and pastoral areas even have a tendency to remove all the breeding farms within their jurisdiction. Breeding is a special industry that provides meat for people, and it is inevitable to produce some wastes in the process of production. If we do not take governance measures in accordance with local conditions, but forcibly remove all farms in an across-the-board manner, then the production capacity of meat will be destroyed and the shortage of meat supply will be inevitable. Recently, we have conducted a survey on the forcible removal of breeding farms and how to achieve the unity of breeding and environmental protection and jointly build a harmonious home, from which we have seen some problems and received some revelations.

The location of our survey is Nanchong City, Sichuan Province. Nanchong City is an important city in northern Sichuan, a major agricultural city in Sichuan Province, and a big pig producer in Sichuan Province. The 9 counties (cities and districts) under its jurisdiction are all major counties providing pigs from Sichuan Province, which have been supported by the state. In recent years, the city has made great efforts to develop modern agriculture, and animal husbandry dominated by pig-raising has developed rapidly, which has laid a foundation for the development of modern animal husbandry. However, with the strengthening of environmental control, some places blame all the environmental pollution in agricultural areas on the livestock and poultry breeding

industry, and various administrative measures such as time-limited removal, on-site supervision and other administrative measures are used to deal with farms, and there is a tendency to remove farms quickly. This approach opposes environmental protection and breeding. Although it has completed the task of environmental protection, it has brought hidden dangers to the development of the industry and ensuring the effective supply of the market. Through the investigation and interview, we found that there are mainly the following problems in the process of removal of the farm. First, the phenomenon of "one size fits all" is serious. Some places do not distinguish between restricted areas, prohibited areas and suitable development areas. Regardless of whether it pollutes the drinking water source or not, regardless of the type of livestock and poultry, as long as it is a large-scale farm, it will be removed. Second, there is one-sided emphasis on environmental protection, weakening the effective supply of the market and the protection of people's daily necessities. The livestock and poultry breeding capacity that has only been developed in recent years has been destroyed due to the removal of a huge livestock and poultry farming capacity, and the new breeding capacity cannot be replaced in time, which will lead to a rapid decline in the number of raised pigs in some places that year. For a period of time in the future, the supply of pork food will be tight, the local meat supply will be more dependent on other places, and meat prices will rise rapidly, thus affecting the life and social tranquillity of ordinary people. Third, there are misunderstandings. First of all, there is an one-sided understanding of the "no-breeding zone", believing that the prohibited area on any scale cannot be run, that no livestock and poultry are allowed to be raised, and that all existing farms must be cleared. This practice is seriously divorced from reality, expecting breeding pollution control work to achieve "overnight" results, and considering suppressing the development of animal husbandry to achieve the goal of environmental control. Second, livestock and poultry manure is regarded as a source of pollution to the rural environment. The farm manure function of live-

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stock and poultry manure is ignored, and it is not allowed to be discharged. The third is to require the fecal treatment of large-scale farms to meet the discharge standards as industrial pollution control. Due to the prominent existence of these problems, the foundation of animal husbandry which has been developed by all means in some places in recent years has been seriously damaged, the development of animal husbandry in some places has been hindered, and the quantity of livestock has a decreasing trend.

According to the operation of national economy in Sichuan in the first half of 2017, released by the Sichuan investigation team of the National Bureau of Statistics, Sichuan kept 43.848 million live pigs in the first half of 2017, a decrease of 427 000, or 1.0%, compared with the same period last year. According to our investigation, the proportion of pig stock reduction caused by the large-scale removal of large-scale farms in some counties is much higher than 1.0%. Sichuan Province is not only a key pig development area planned during the 13th Five-Year Plan, but also a traditional breeding province, which used to be a major province of pork production in the whole country. Breeding is not only an important industry to increase farmers' income, but also an important part of modern agriculture. At present, in the work of getting rid of poverty, livestock and poultry breeding is still the only way for the poor people in some places to get out of poverty. Therefore, in the key pig development areas planned by the state, we should not only protect the environment, but also maintain the sustainable development of the industry, unify environmental protection and breeding development, think of a good method, and adopt a comprehensive strategy, in order to achieve the effect of not only the smell of meat and vegetables, the happiness and well-being of the people, but also the clear waters, green mountains and beautiful homes.

2 Understanding the environmental pollution caused by breeding objectively and impartially

China is not only a big meat consumption country, but also a big breeding country, so the discharge of livestock and poultry breeding sewage is inevitable. At present, it is generally believed that the total amount of pollutants produced by livestock and poultry is much more than that of industrial pollutants, and people one-sidedly believe that the pollutants produced by livestock and poultry breeding are the main pollution sources of the rural environment, and livestock and poultry breeding activities should be banned in an all-round way. However, from the nature of breeding pollution, it is obvious that it cannot be calculated only from the total quantity of pollutants, otherwise, according to this logic, there are obviously more domestic waste and fecal pollution produced by human beings since ancient times, and humans are well-deserved culprit. Before entering the industrial society, have we ever seen the occurrence of large-scale pollution caused by livestock, poultry and human faeces? Therefore, we should treat the breeding pollution objectively, and we should see that livestock and poultry faeces and pollutants are decomposable, transferable and self-purifying, and can realize the green cycle. This is also one of the reasons why the breeding industry goes on and on. In

other words, livestock and poultry manure can be converted into useful plant fertilizer as well as high-calorie fuel. This means that under the modern standard treatment, these "pollutants" can often turn waste into treasure. This kind of treatability is obviously different from the irreversible invasion of industrial pollution and derivative pollution to the environment. Therefore, the methods of controlling breeding pollution should be different from those of controlling industrial pollution.

3 Cherishing resources, controlling breeding pollution according to local conditions and stabilizing the production capacity of existing meat food

In rural areas, most of the pollution farms that need to be treated are developed in the period of ultra-rapid economic development in our country. Some are built as regional competitive or key industries invested by government finance at all levels (including central finance), and a lot of manpower, material and financial resources have been spent on cultivating the breeding capacity. Therefore, when we control the pollution of breeding farms, we should cherish these breeding resources and should not simply take the approach of removing them. We should comprehensively consider protecting the hard-won breeding capacity. First of all, for large-scale livestock and poultry farms in prohibited and restricted areas, it is necessary to strictly control the type and quantity of livestock and poultry, and improve the empty rate. Even in order to repair the environment in a short period of time, forced closure can be taken to reduce the pressure on the environment. This can not only protect the environment, but also protect the ability of livestock and poultry breeding. Second, there is not merely one option of "removal" for farms without environmental protection facilities. Owners can be encouraged to improve pollution control facilities, so that the farm pollution control facilities are complete, to achieve scientific breeding, reduce excessive emissions from farms, and it is necessary to mobilize livestock and poultry breeding owners to consciously participate in the action of environmentally friendly breeding. Third, if it is really necessary to relocate, we should take specific measures of removal and construction to carry out the relocation, so as to protect and stabilize the existing livestock and poultry breeding capacity and ensure the effective supply of the market. Finally, places with large-scale removal or relocation tasks can adopt a step-by-step approach to make plans, remedy in time, and promote steadily, avoiding the "executive order" and "one-size-fits-all" approach. Through measures in accordance with local conditions, it is necessary to steadily promote the pollution control work of livestock and poultry breeding, to not only control the environment, but also effectively protect the existing breeding capacity, so as to ensure the effective supply of meat market.

4 Scientifically breeding, protecting clear water and blue sky and building a beautiful home together

In the future development of animal husbandry, we should pay more attention to environmental protection, achieve the unity

of breeding and environmental protection, protect clear water and blue sky, and jointly build a beautiful China. First of all, it is necessary to make scientific planning and rational layout. Through strict planning and layout, the pollution caused by livestock and poultry breeding can be effectively avoided, and pig and livestock and poultry breeding areas can be actively selected, which is conducive to environmental protection and the development of breeding industry, and striving for the initiative of environmental protection. Second, it is necessary to control scale and quantity. Scale operation is the most common requirement of economic development, especially agricultural production projects, but from the point of view of environmental protection and economic benefits, for a farm or a breeding unit, it is not that the larger the scale and the more the quantity, the better the benefit, but to emphasize the moderate scale operation. In the actual breeding production, the annual production of free-range finishing pigs of farmers should be controlled between 20 and 50, and that of laying hens and shed ducks should be controlled between 500 and 1 000. The number of finishing pigs in small professional family farms should be controlled at 200 – 300 per batch. At the same time, the farming quantity should also take into account the ability of cultivated land to absorb livestock and poultry manure. Generally speaking, one mu of arable land cultivated in four seasons can annually absorb the dung produced by 1 – 3 pigs. In the past, there was the saying of "one pig per mu" in agricultural areas. Large-scale professional breeding farms have to go through site selection, planning and design and comprehensive evaluation of environmental capacity before construction, and the quantity and scale of breeding should fully consider the capacity of the environment and the absorption of pollutants. Third, it is necessary to improve facilities and speed up industrial upgrading. In the breeding of scattered farmers, it is necessary to strengthen the transformation of enclosures and industrial upgrading, so that human settlements and livestock and poultry pens are separately built, and people and livestock and poultry live separately. It is necessary to actively apply new pen construction technology and new scientific methods, vigorously promote household biogas technology, and strive to promote the "one household, one pen and one digester" production mode combining livestock and poultry breeding with biogas. By the construction of biogas digester under the livestock and poultry enclosure, we can not only collect the feces and dirt produced by livestock and poultry immediately, but also produce biogas to solve the fuel needs for people's life, and reduce the direct pollution caused by livestock and poultry dung. In large-scale pig farms, it is necessary to plan, design and build large-scale manure treatment plants, including the installation of dry and wet separation equipment, liquid sewage storage tanks, storage and disposal rooms for diseased livestock and poultry corpses, and so on. The pollutants produced in large-scale farms should be discharged after innocuous treatment to meet the *Pollutant Discharge Standard for Livestock and Poultry Breeding* (GB 18596-2001), so as not to pollute the surrounding environment and affect the peace of people's life. Thus we can realize the virtuous circle development of breeding and environmental protection.

Where there are conditions, biogas power generated can also be used for sale (State Grid), which can not only make livestock and poultry manure become resources, but also enable farmers to have a fixed income. Governments at all levels should incorporate industrial upgrading and improvement of breeding facilities into the important content of beautiful rural construction, take the area as a unit, make overall plans to build collection and clearance points for dead bodies of livestock and poultry, pick up dead bodies of livestock and poultry at any time, so that they are not littered, do not be exposed in the wild, do not pile up, and do not cause disasters, to avoid public health incidents caused by livestock and poultry breeding.

4 Breeding and managing according to law and making environmental protection and breeding promote each other

In recent years, in order to protect the environment and speed up the construction of beautiful villages, our country has revised and improved many laws and regulations. The relevant provisions of these laws and regulations are related to livestock and poultry breeding, the disposal of sick and dead livestock and poultry, environmental protection and responsibility, and provisions have been made on the circumstances of criminal punishment for damaging the environment, which can be described as the most stringent environmental protection laws and regulations in history. Therefore, in livestock and poultry breeding, we should consciously do a good job in environmental protection, strengthen the supervision of law enforcement, breed in accordance with the law, and strictly regulate it in accordance with the law. It is necessary to strengthen the supervision of prohibited and restricted livestock and poultry breeding areas, support the legal breeding behavior of breeding owners, ban and investigate and deal with farms with serious pollution, control livestock and poultry breeding pollution in accordance with laws and regulations, make plans in line with local conditions, and take comprehensive measures to control livestock and poultry pollution. All areas shall not raise the discharge standards of sewage from livestock and poultry farms on their own. All livestock and poultry farming owners must raise their legal awareness, persist in handling affairs in accordance with the law, breed in accordance with the law, conscientiously reduce the pollution caused by livestock and poultry breeding, build and improve pollution control facilities in breeding farms, and urge all kinds of breeding owners to meet the standards for the discharge of manure and waste water, effectively reduce the pollution of breeding to the environment. It is necessary to vigorously popularize the technology of using livestock and poultry manure to produce high-efficiency organic fertilizer, turn breeding pollutants into treasures, incorporate livestock and poultry breeding and pollution control into the state action to reduce the use of chemical fertilizers, coordinate and promote the treatment of breeding pollution, and encourage the planting industry to vigorously use farm manure. This can not only reduce the environmental pollution caused by livestock and poultry manure, but also reduce the use of chemical fertilizer, im-

prove soil fertility, promote the green cycle between planting and breeding, and promote the sustainable development of agriculture.

In short, livestock and poultry breeding and environmental protection are the unity of opposites, the unity of contradictions, it is not the relationship between one and the other, and they must not be separated. We should follow the objective laws of the development of things. We should not abolish the breeding industry just for the environment, nor should we just focus on breeding and forget about environmental protection, especially in key development areas of livestock and poultry planned by the state. It is necessary to study not only the new technology of livestock and poultry breeding and promote the development and upgrading of the industry, but also the popularization and application of new technology of pollution control and environmental protection of livestock and poultry breeding. In the pollution control work of livestock and poultry breeding at the present stage, it is necessary to avoid the practice of setting breeding against environmental protection, and the simple practice of "choking and giving up food" and fantasizing about "achieving overnight" to remove all existing farms is not advisable. We should correctly, objectively and dialectically understand the pollution caused by livestock and poultry breeding, implement pollution control measures according to local conditions, vigorously promote scientific and healthy breeding methods,

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4.3 Improving the construction of the sales system The construction of information network is speeded up, brand promotion is strengthened, direct sales of products and docking of farmers and supermarkets are strengthened to broaden sales channels and expand sales scope. A modern strawberry industry that integrates sightseeing, picking and leisure tourism is developed vigorously, to further improve the visibility, reputation and influence of Zhuanbu strawberry^[16].

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