## Ecological Breeding Technology and Development Trend of Pigs Menghan Song

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**Abstract:** This paper analyzes the advantages and technical points of ecological pig breeding, hoping to provide some reference for ecological pig breeding.

**Keywords:** Ecological pig; Breeding technology; Ecological benefit

Ecological pig breeding technology provides pigs with an excellent growth and development environment, reduces the occurrence of epidemic diseases, improves the quality of pork with more scientific and reasonable management and breeding methods, and ensures that pork is safe and harmless.

## 1. Advantages of ecological pig breeding technology

## 1.1 Improve the economic benefits of pig farming

The traditional pig breeding model will consume a lot of resources, and the breeding cost is relatively high. In the process of pig breeding, it will also cause different degrees of ecological and environmental pollution risks, and the breeding risk will follow the expansion of the pig breeding scale. Increase, so that the economic benefits of farmers can not be effectively guaranteed. Compared with the traditional pig breeding model, ecological pig breeding technology can not only improve the economic benefits of farmers, but also coordinate the relationship between pig breeding and ecological environmental protection. The ecological pig breeding technology can scientifically and rationally allocate and reuse various energy sources through the recycling and reuse of various waste resources such as biogas utilization. Resource requirements, biogas slurry can also be put into crop production, bringing other types of value-added benefits to breeders and reducing the economic cost of pig breeding.

#### 1.2 Reduce ecological environment pollution

There are a large number of small and medium-sized pig breeding bases and individual pig breeding bases in our country. Traditional pig breeding will have the risk of ecological environment pollution. Once the problem of ecological environment

pollution occurs, it will increase the cost and workload of environmental governance in various places, thereby increasing the number of breeding personnel. the operational burden of the pig farm. The implementation of ecological pig breeding technology can effectively use pig breeding bases and waste resources generated in the process of pig breeding for environmental protection, reduce waste of resources, and reduce the hidden problems of ecological environment pollution and the phenomenon of pollution. The pig breeding model promotes the sustainable development of animal husbandry and brings long-term and considerable ecological benefits to farmers.

## 1.3 Improve the quality and edible safety of pork food

There is a large demand for pork products in our country. With the improvement of people's living standards and quality, people are particularly concerned about the food safety of pork products. A certain dose of metal elements and antibiotics can enhance the health of live pigs by feeding this type of feed, thereby reducing the risk of pig diseases for farmers, so as to ensure the economic benefits of farmers. However, the long-term feeding of this kind of feed will lead to the deterioration of the meat quality of pork products, which will bring certain hidden risks to people's health. The ecological pig breeding technology can strictly select the feed through the method of ecological breeding, thereby ensuring the quality of pork, and increasing the economic benefits of the farmers while meeting people's needs.

# 2. Application practice and implementation points of ecological pig breeding technology

#### 2.1 Scientific site selection and layout

If farmers want to give full play to the advantages of ecological pig breeding technology, they should first scientifically select the site and lay out the environmental construction of the pig breeding base. The scientific site selection and layout mainly cover three aspects. First, the location of the pig breeding base should be as far away as possible from the living area of the residents. The terrain of the site should be selected in a relatively high place. In order to meet the basic needs of the site selection of the pig breeding base and reduce the possible impact on the

surrounding residents during the pig breeding process. Second, in the construction and layout design of the pig breeding base, the production area and the living area should be clearly divided as much as possible. processing area, etc. The third is to ensure the environmental quality of the pig house in the pig breeding base and ensure a healthy living environment for the pig herd. For example, facilities such as net beds are used to isolate the feces produced by the pig herd, so that the breeding staff can clean up the pig house in time. According to the actual construction of the pig house, a certain number of ventilation facilities and temperature regulators can be installed to ensure that the pigs can grow healthily in a suitable growth environment.

## 2.2 Keep the pig house clean and hygienic

A suitable growth environment can ensure the health of live pigs. Keeping the pig house clean and hygienic is the basic condition for pig breeding. Common swine infectious diseases are often caused by the hygienic conditions of pig houses that do not meet the standards of pig breeding, which in turn causes pigs to suffer. The breeding of a large number of bacteria, viruses and mosquitoes in the house not only increases the risk of disease in pigs, but also creates a good vector for the spread of infectious diseases in pigs. Therefore, when using ecological pig breeding technology for live pig breeding, farmers should establish a regular pig house cleaning and virus disinfection management system to ensure a clean and hygienic pig house environment and eliminate disease and insect eggs that may be contained in pig manure. The regular pig house cleaning and virus disinfection management system should include five routine management contents. One is to lay reasonable litter in the pig house to increase the actual degradation rate of pig manure and urine. Attention should also be paid to the burial of litter, so as to increase the fermentation and decomposition of pig manure in the natural environment, and reduce the emission of ammonia gas generated in the process of manure interpretation. The second is to do the daily ventilation of the pig house and try to keep the pig house as dry as possible. The third is to do a good job of regular virus disinfection in the pig house, and use advanced disinfection equipment as much as possible to spray and disinfect all areas in the pig house. The fourth is to do a good job of feces cleaning on a regular basis to

avoid the accumulation of pig feces. At the same time, after the feces are cleaned, corresponding disinfection work should be carried out to prevent a large number of bacteria from multiplying and affecting the health of live pigs. The fifth is to do a good job in the daily disinfection of breeding staff and vehicles entering the breeding base to avoid viruses, bacteria, etc. Prevent cross-infection that may exist in some diseases.

### 2.3 Strictly control the quality of feed

The composition of the feed is a key factor affecting the quality of pork. The feed used in traditional pig farming often contains a certain dose of antibiotics, metal elements and growth-promoting hormones. The slaughter time of live pigs also affects the quality of pork. In addition, if the breeding staff uses a single ratio of feed for a long time, it will also lead to the problems of malnutrition and weak disease resistance in live pigs, which will affect the quality of pork. Therefore, strictly controlling the quality and ratio of feed is the primary condition to ensure the healthy growth of live pigs. The specific management and control methods can select appropriate diets according to different growth stages of live pigs to meet the nutrition required by live pigs at different growth stages, and at the same time The pig breeding staff must strictly control the dosage ratio of the feed, and choose the appropriate daily feeding amount and daily feeding frequency according to the actual condition of the pig. In addition, farmers should establish a complete organic agricultural production system in the pig breeding base, so as to provide green and natural raw materials for pigs, and at the same time add scientific doses of vitamins to the raw materials of pigs to improve the disease resistance of pigs. Breeding staff should pay special attention to the freshness of the raw materials when choosing green and natural feeding materials, and ensure that the raw materials have no problems such as mildew and fermentation. If farmers cannot feed green and natural raw materials to live pigs due to personal or other reasons, farmers should choose concentrated feeds from regular manufacturers and the feed quality meets the national standards for feeding, so as to ensure the health of live pigs and the quality of pork.

#### 3. The development trend of ecological pig breeding technology

3.1Recycling culture technology. The use of recirculating aquaculture technology can increase the

Utilization rate, pig manure is effectively utilized. For example, the cycle mode of pig-breeding-biogas-fruit in the biogas tank type, the excrement of ecological pigs is fermented in the biogas tank, the biogas produced by the fermentation is used as living energy, the biogas residue can be applied to the farmland as fertilizer, and the fruits and vegetables grown in the farmland can also be eaten by pigs, which not only greatly improves the utilization rate of resources, but also reduces the pollution to the environment. However, the long-term use of biogas residue as fertilizer will cause soil compaction and soil quality to decrease, which is not conducive to crop growth.

- 3.2 Original ecological stocking technology. You can choose to breed in barren mountains or barren fields. Ecological pigs can move freely in the breeding plant and eat freely. Fresh grass, agricultural and sideline products and residues can be used as feed for ecological pigs. The feed is healthy and pollution-free, making the pigs healthier. growth. However, this ecological breeding technology cannot effectively prevent and control the epidemic.
- 3.3 Information farming technology. Combine modern technology with ecological pig breeding technology, use remote monitoring system to monitor the farm environment in real time, conduct statistical analysis on the collected breeding environment data and ecological pig breeding data, and timely discover possible hidden dangers. Dynamic adjustment to avoid the emergence of ecological pig epidemics.

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