

## International Development Trend of Animal Husbandry and Breeding Industry under the Background of Rural Revitalization

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*Keywords:* Animal Husbandry, Rural Revitalization, Breeding Characteristic Industry, Development Trend

*Abstract:* With the socialism with Chinese characteristics entering a new era, the wealth gap between urban and rural areas is still large, the rural development lags behind, and the development of animal husbandry is insufficient. Therefore, the government must vigorously implement the strategy of Rural Revitalization. Based on the above background, the main purpose of this paper is to analyze the international development trend of animal husbandry and breeding characteristic industry under the background of Rural Revitalization. Based on the development of animal husbandry in this town from 2013 to 2018, this paper analyzes the development status and development trend of animal husbandry in the world, analyzes the macro environment and situation of animal husbandry development in this township, and mainly establishes the evaluation model of ecological animal husbandry by using sustainable environmental assessment method. The experimental results show that: there is little difference between the simulation value and the actual value of the number of livestock products in the township. The maximum error rate between the simulation value and the realized value is 2.7%, the minimum error rate is 0.8%, and the average error is 1.2%. It fully shows that the simulation model of animal husbandry eco-economic development system in the township has a good fitting degree, and describes the actual development of the Township animal husbandry eco-economic system. The international development trend of Township animal husbandry, first of all, we should ensure the new connotation of animal husbandry product safety, that is, quality safety and quantity safety. The Township animal husbandry products should develop in the direction of high-grade, characteristic and flavor. In terms of the regional layout of animal husbandry production, it is planned to divide into three areas: controlled breeding area, moderate breeding area and developmental breeding area.

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#### **1. Introduction**

As an intermediate industry of China's agricultural economy, animal husbandry plays an important role in the development of agricultural economy, and the implementation of livestock and poultry breeding management can better achieve its positive role in promoting the development of agriculture and rural areas. Specifically speaking, on the one hand, vigorously developing aquaculture industrialization is an important link to realize the modernization of aquaculture, which is conducive to the realization of high-quality safety, high-quality ecology and high-yield and efficient animal husbandry. On the other hand, in order to develop China's animal husbandry industrialization can effectively expand the absorptive capacity of rural surplus labor force and realize a large number of rural surplus labor force transfer. At the same time, industrialized management can increase the added value of agricultural products, increase the income of farmers and improve their living standards. Therefore, the main goal of modern animal husbandry development is to continuously and rapidly improve agricultural economy, increase farmers' income, and explore the management mode of animal husbandry industrialization.

Livestock breeding is the main source of agricultural pollution. However, our understanding of the constraints on the geographical distribution of livestock pollutants is still limited. Ganl study estimated the annual pollutant production of eight provincial livestock and poultry in 2005 and 2013 and their growth rate during the study period by using the optimized pollutant generation coefficient; using canonical correlation analysis, the relationship between 8 pollutant indicators as dependent variables and 14 factors (including resource endowment, development level and economic structure factors) as independent variables was discussed [1]. Tao L put forward the following suggestions: Based on the ecological and economic principles, introduce the circular economy of "reduction, reuse and recycling", strive to choose the development mode of circular economy to adapt to the characteristics of local resources, planting and breeding habits; realize the path, pay close attention to the construction of standardized breeding farms, planting organic fertilizer industry, infrastructure construction, environmental law enforcement, and other parts; We should strengthen policy guidance, adjust and optimize the industrial structure, strengthen scientific and technological innovation, promote the industrialization management, promote the stable development of Guangxi characteristic breeding industry with circular economy, and accelerate the process of revitalizing the breeding industry in the province [2]. Elzen B discussed a model for developing a new "holistic sustainable" animal production system and promoting its application in practice [3]. Animal husbandry is the traditional main source of life and income in Qinghai Tibet Plateau. The Qinghai Tibet Plateau is one of the main snow disaster areas in the world. The purpose of Wei y assessment is to identify the vulnerability of livestock industry on a spatial scale and to identify the causes of vulnerability for adaptive planning and mitigation [4].

Based on the development of animal husbandry in this town from 2013 to 2018, this paper analyzes the development status and development trend of animal husbandry in the world, analyzes the macro environment and situation of animal husbandry development in this township, and mainly establishes the evaluation model of ecological animal husbandry by using sustainable environmental assessment method. The results show that: there is little difference between the simulation value and the actual value of the number of livestock products in the township. The maximum error rate between the simulation value and the average error is 1.2% the direction of characteristic and flavor development. In terms of the regional layout of animal husbandry production, it is planned to divide into three areas: controlled breeding area, moderate breeding area and developmental breeding area.

## 2. Analysis of Animal Husbandry Under the Background of Rural Revitalization

## 2.1. Analysis of International Superiority Theory

#### (1) Absolute comparative advantage

The research on comparative advantage in foreign countries started earlier than that in China in the 1960s and 1970s, and the theory was rarely evaluated. You don't want to make it in your own country if other countries produce what they need at a lower cost. You need the money you get from the goods you're best at making to buy cheap goods from other countries, so it's cheaper and more economical. If each country produces according to its absolutely favorable production conditions, through specialized production and then exchanging with each other, the resources of each country can be effectively distributed and reasonably used, thus increasing labor productivity, reducing costs, increasing national wealth and the division of labor will naturally form. Smith compares the cost of the same commodity in different countries. He thinks that the absolute cost of a product is low, which can be called absolute advantage [5]. As long as we have the absolute advantage of this product, we should develop the professional production of this product, and then export it to exchange for our own product which does not have absolute advantage. In this way, both sides of the transaction can benefit from the transaction. In the same way, any region should follow this principle. According to its absolutely advantageous production, it should have the conditions to carry out specialized production, and then carry out regional exchanges, so as to make the most effective use of regional resources, so as to improve regional labor productivity, improve labor productivity and promote regional interests. Only by taking the market demand as the guidance, can we achieve high degree of specialization, low production cost, obtain market competitive advantage in regional trade, and create greater economic benefits [6].

(2) Comparative advantage theory

Comparative advantage theory is developed on the basis of absolute advantage theory [7]. The basis of regional division of labor is not limited to the difference of absolute production costs. As long as there is a region between the differences of relative production costs, each region has a comparative advantage to produce different products, so as to make the regional division of labor. Each region can produce and export products with comparative advantages to other regions, and import products with comparative disadvantages from other regions. Each region can obtain comparative benefits from the division of labor. In other words, "two strengths are most important" and "two weaknesses are least important". In this way, the resources of various regions can be fully and effectively utilized. This kind of thinking has always been regarded as the norm to determine the regional division of labor.

The classic explanation of comparative advantage is the example of down jacket and whisky. Suppose there are only two countries in the world, Germany and Sweden. These two countries use one kind of production factor, that is, labor. The two countries produce two products, down jacket and whisky, respectively. The number of people who need a year's labor force to produce down jacket and whisky in Germany are 80 and 150, respectively, while the number of people who only need one year's labor force in Sweden to produce down jacket and whisky are 70 and 130 respectively. As shown in Table 1:

Country	Down jacket(1 unit)	Whisky(1 unit)
Germany	80	150
Swedish	70	130

Table 1. Germany and Sweden before division of labor

Table 1 shows that it takes 70 working days and 130 days to produce one unit of down jacket and one unit of alcohol in Sweden, while it takes 80 and 150 days in Germany.

Obviously, Germany has no absolute cost advantage in the production of these two products, but it has an absolute cost advantage in the production of down jacket. In contrast, Sweden has absolute cost advantage in the production of these two products, and the advantage of producing whisky is greater. Therefore, for Sweden, they should focus on the production and export of whisky. It is beneficial to replace down jacket. It is beneficial for Germany to produce down jacket and import whisky. The division of labor produces comparative benefits, and the two countries can gain benefits in trade. This is a typical  $2 \times 2 \times 1$  comparative advantage model. These two countries, two products, one factor of production.

The theory of regional division of labor, regional trade and factor endowment (land, labor, capital) are closely related. It is said that the main reason of product cost difference is the proportion of element resources in different regions and the difference of relative wealth of regional production factors, which determines the relative price and labor productivity difference of production factors. The basic viewpoints of the theory are as follows: (1) each country and region has different factors of production endowment. Each country and region should make full use of the regional division of labor and trade system produced by its relatively rich factors, and give full play to its advantageous factors of production. (2) The difference of production factor and production factor is the direct reason for the difference of production factor. (3) The most important result of international division of labor and international trade is that countries can make more effective use of production factors. If the factors of production can flow freely in the world, they can be used effectively.

(3)Factors of production

The theory of endowment difference of production factors was put forward by herxheier [5] and Orin [6]. The theory of regional division of labor, regional trade and factor endowment (land, labor, capital) are closely related. It is said that the main reason of product cost difference is the proportion of element resources in different regions and the difference of relative wealth of regional production factors, which determines the relative price and labor productivity difference of production factors. The basic viewpoints of the theory are as follows: (1) each country and region has different factors of production endowment. Each country and region should make full use of the regional division of labor and trade system produced by its relatively rich factors, and give full play to its advantageous factors of production. (2) The difference of factor endowment is the direct cause of regional division of labor and trade development, which determines the price difference of production factors. (3) the most important result of international division of labor and international trade is that countries can make more effective use of production factors. If the factors of production can flow freely in the world, they can be used effectively.

#### 2.2. Ecological Animal Husbandry

Sustainable development is the concept of economic and social development. Sustainable development is an important development concept in the 20th century. Its definition is to meet the needs of contemporary people and not damage the ability of future generations to meet their needs [7].

#### (1) The concept of sustainable development

The ability of sustainable development is one of the goals that must be realized in building a harmonious well-off society. At the central level, sustainable development is endowed with the following profound connotations. The breakthrough to protect natural resources and environment is to encourage healthy economic development, and the goal is to improve and enhance the quality of human life

1) One theme emphasizes development. Economic growth is not equal to development. The diversity and integrity of society, technology, culture and various environments are phenomena of development. It belongs to the most universal and universal human rights. All countries are equal, inviolable and inalienable right to development;

2) It emphasizes the sustainability of development, that is, human social and economic development must be carried out within the scope of environment and resources;

3) It is the fairness and fairness of interpersonal relationship, that is, when people develop when they consume, they should do their best to make their offspring enjoy the same development opportunities as their own, but under the same circumstances, their development cannot be realized by infringing on the interests of others.

4) The common development of man and nature. From the perspective of nature, man should create new values and moral concepts, respect nature, treat nature kindly, learn from nature, protect nature, and ensure the harmonious coexistence between man and nature. The sustainable development at the top of the Central Committee is based on the concept of harmony and unity, that is, the sustainable development of society, economy and environment is the first priority. Of course, it is necessary to ensure the harmonious coexistence of man and nature, human, resources and society, and that the economy and environment can truly realize sustainable development, which is the basis for the Party Central Committee to guide people to adhere to ecological nature and harmonious development [8].

At present, the representative definition of sustainable development in the theoretical circle is that development not only fully realizes different types of needs of modern people, but also does not damage the ability of future generations to enjoy the same type of needs. Theorists point out that the definition of sustainable development should fully understand the two core elements of the definition: "need" and "need" constraints. These two factors are determined by the following factors: income redistribution, avoiding the forced depletion of all natural resources for the pursuit of short-term survival needs; reducing the vast number of poor people's helplessness for the sharp fall of agricultural and sideline products prices and natural disasters; providing equal health and sustainable development basic conditions for all vulnerable groups, especially providing opportunities for sustainable development for all vulnerable groups[9].

(2) Theory of circular economy

Circular economy itself is a new ecological economic theory to guide social and economic behaviors and activities. Its purpose is to require the production activities to follow the closed-loop, realize the efficient recycling of resources and energy and reduce the emission of harmful substances in the production system of the whole society, so that the ecological environment and social economy can achieve coexistence, symbiosis and win-win results as far as possible [10-11].

The five main aspects of circular economy are re thinking, reduction, reuse, recycling and repair, that is, the five theories of single circular economy of social organizations are reflection, reduction, reuse, recycling and reuse. In other words, before any social organization starts any activity, it must use the ecological concept to guide the follow-up planning. It is required to extend the service life of the product as much as possible through maintenance on the premise of ensuring the basic performance of the product [12].

In real life, circular economy is mainly reflected in the following three levels: enterprise level, regional level and social level. Enterprise level is also called small cycle. From the perspective of the smallest social production organization, small cycle requires enterprises as a basic unit to make full use of the theory of circular economy in the normal production and operation process, so as to achieve the goals of low energy consumption, low emission of harmful substances and material reuse. The regional level is also known as the medium term cycle. The goal of medium cycle is to require enterprise groups to establish regional ecological chain, and realize closed-loop supply of

materials among enterprises in the region, so as to maximize the economic and ecological benefits of the whole region. At the social level, it is also known as the big cycle. In short, the macro cycle is the rationalization of the relationship between economy and ecological environment from the perspective of the whole society. The great cycle requires the development of human society and economy to complete the supply cycle of natural resources continuously.Only by dealing with the relationship between them can we realize the sustainable virtuous circle of three levels. The core essence of circular economy is the efficient recycling of resources, which is the inevitable way and choice to complete the development of environmental protection and low-carbon.

## (3) Ecological animal husbandry

Animal husbandry has gone through the primitive, traditional and industrialized stage, and now it has entered the modern stage. In the stage of modern animal husbandry, ecological animal husbandry is the current mainstream and the later development direction. Under the guidance of the principles of material recovery and environment, ecological animal husbandry, combined with modern technology and the adjustment of animal production, realizes the combination of social benefits, economy and ecology, and establishes a new advanced production mode, which makes the whole system more environmentally friendly and efficient, pollution-free and pollution-free, and makes the production process achieve a virtuous cycle of environmental, ecological and economic, It will make the ecological function more perfect, the ecological structure more reasonable, the environment more beautiful, the resource allocation more reasonable, and realize the sustainable development of animal husbandry.

The characteristics of ecological animal husbandry are as follows: pay attention to the application of science and technology. Make full use of grassland improvement, animal immunity, feed production and other production technologies to improve production efficiency and pay attention to cycle. Animal husbandry, forestry and planting are interrelated, restricted and promoted each other. Problems in a certain link will affect other systems, resulting in system imbalance; the overall function of animal husbandry ecosystem: comprehensive utilization of ecological technology, feeding management, animal breeding, product processing and other links to achieve the coordinated development of related industries; reduce waste and pollution, and produce green products. Ecological animal husbandry is the most reasonable choice and the only way for the development of animal husbandry, which connects industry with the development of material world and the continuation of life to realize sustainable development.

Ecological animal husbandry is a process that must be experienced in the sustainable development of animal husbandry. In the animal husbandry system, animal husbandry is affected by many factors, including economic, social and natural factors. Therefore, in the development of animal husbandry, we should pay attention to the immediate interests and also consider the long-term interests of sustainable development. The sustainable development of animal husbandry should be based on the theory of ecological economics.

Scientific prevention of environmental pollution in the process of breeding, protecting the ecological environment is also one of the benefits of ecological animal husbandry. In addition, agriculture, animal husbandry and other related industries can be linked to form the standard of modern animal husbandry, so as to realize the sustainable development of animal husbandry. The third advantage is to ensure that animal products are pollution-free and provide protection for people's food safety; the fourth advantage is that livestock products can enter the market, improve the commercialization rate and increase the income of breeding. Generally speaking, sustainable development of animal husbandry is the premise of ecological animal husbandry, and ecological animal husbandry is the basic guarantee of industrial sustainable development.

#### 3. Experimental Design

The goal of harmonious development of economy, environment and ecological animal husbandry is to combine the social and economic system of animal husbandry with the economic operation of ecological economic system of animal husbandry.

#### **3.1. Experimental System Design**

The research of system dynamics mainly focuses on the system dynamics of self-feedback mechanism. A system is composed of subsystems and interrelated and interacting elements in the system. Through a certain structure, the relationship between elements can be summarized as causality. It is the interaction of causality that ultimately forms the function and behavior of the system. Considering the operating conditions of each actor in the model, based on the analysis of causal feedback relationship, we constructed a flow chart for the relationship between the development power and benefit of animal husbandry eco-economic system in the township:



Figure 1. Driving force and Benefit of ecological economy development of animal husbandry in towns and villages

#### **3.2. Experimental Steps**

According to the method introduced in this paper, the calculation model and system coordination degree model of ecological animal husbandry subsystem are as follows. The data in the model are from the statistical yearbook and the Yearbook of the township

(1) The calculation model of the subsystem is as follows

Principal component analysis, also known as principal component analysis or matrix data analysis, is a commonly used method in statistical analysis, system evaluation and quality management, and is widely used in development strategy research. Because of the interrelation of the system, only by mastering the state of several main parameters can we master the whole system. Principal component analysis (PCA) is a mathematical progression method to find out the main factors and their relationship in the system, so as to analyze and evaluate the system effectively. The specific calculation method is as follows:

## 1) Dimensionless index

The elements in the system have different dimensions and orders of magnitude, so the

dimensionless processing should be carried out to eliminate the influence of dimension and order of magnitude between data. There are two types of indicators: positive indicators and negative indicators. In dimensionless processing, the calculation methods of these two kinds of indicators are different, and the efficiency coefficient method is used to standardize the data.

Let's say I have N years of index values, M indices in the system. The value of each indicator is marked as  $i_{x,y}$ , indicating the y indicator in the x year (=1,2...). N; = 1, 2,... M), the formula for calculating the efficiency coefficient of each index is as follows:

When  $i_{x,y}$  is a positive indicator, then

$$j_{xy} = \frac{i_{xy}}{\max i_{y}} \tag{1}$$

When  $i_{x,y}$  is the inverse index, then

$$j_{xy} = \frac{\max i_y + \max i_y - i_{xy}}{\max i_y}$$
(2)

In the formula,  $i_{x,y}$  is the original value of the y index in the x year, and  $j_{xy}$  is the value of the y index in the x year after calculation.

2) After dimensionless processing of the collected data, the correlation matrix A of each sample is calculated to obtain the correlation matrix. The correlation matrix A, variance contribution rate, cumulative variance contribution rate and characteristic root of principal component score and eigenvector coefficient matrix B's variance contribution rate is expressed as Vi (I =1,2...)., cumulative variance contribution rate  $\sum \propto x \ge 83\%$  is expressed as (I =1,2... M). 3) Determine the number of principal components K (k < y), calculate the principal component

score, according to the principle of  $\sum x \ge 83\%$ , calculate and select the number of principal components K, and calculate the score of principal components according to F= XB.

4) The K principal components were evaluated and the linear weighted sum was performed:

$$Z = f_1 v_1 + f_2 v_2 + f_3 v_3 + \dots + f_q v_l (q = 1, 2, 3, \dots, k, l = 1, 2, 3, \dots, y)$$
(3)

#### (2) Coordination degree model

The development of animal husbandry is the demand of social progress, but the development of animal husbandry can not be based on environmental damage.

In this paper, the coordination degree function model is used to judge the direct coordination degree between the social economic subsystem of animal husbandry and the environment of animal husbandry:

$$C_x = 1 - T_x / K_x (x = 1, 2, 3, \dots, n)$$
(4)

In the formula,  $C_x, T_x, K_x$  represents the coordination degree, mean value and standard deviation between the social and economic subsystem of animal husbandry and the environment of animal husbandry respectively.

In the coordination function model, the coordination degree of the system is high, which requires the comprehensive development of the two subsystems. Therefore, the greater the coordination degree  $C_x$  between the two subsystems indicates that the development of the two subsystems is comprehensive development. On the contrary, the greater the difference of comprehensive development level between the two subsystems, the greater the coefficient of variation.

#### 4. Analysis of Experimental Results

## 4.1. Analysis on the Development Trend of Livestock Products in the Township

The data of cattle, pigs and chickens of the township from 2013 to 2018 are shown in Figure 2:



Figure 2. Livestock products data of the township from 2013 to 2018

As can be seen from Figure 2, from 2013 to 2018, the output of cattle, pigs, chickens and other livestock products in the township has been increasing with the passage of time. The contradiction between supply and demand of livestock products has reversed, some large livestock products have structural surplus, high-quality livestock products have social demand, and the output value of animal husbandry has decreased first and then increased, and even the phenomenon of increasing production but not increasing income has occurred. The township timely organized the implementation of the three major projects of "one hundred items integration", "science and technology promoting animal husbandry" and "reassuring meat". As a result, regional and large-scale commodity production bases have increased, a number of agricultural and animal husbandry enterprise owners and farmers' entrepreneurs have emerged, a number of processing enterprises have emerged, and a number of relatively concentrated animal husbandry industrial belts have been formed, it has gradually realized regionalization, specialization and characteristics. And gradually began to form animal husbandry industrialization, the Township animal husbandry began to change to the direction of quality and benefit.

# **4.2.** The Average Value of the Development of Social Economic System and Environmental System of Animal Husbandry in the Township

Based on the data collected in this paper, according to the algorithm proposed in this paper, we can get the average value of the development of the socio-economic system and environmental system of animal husbandry in the township, as shown in Table 2:

Year	2013	2014	2015	2016	2017	2018
Average socioeconomic development	-0.298526	0.156856	-0.085621	-0.035686	0.03541	0.081365
Environmental development mean	-1.356895	-0.653654	0.212368	0.356412	0.892365	0.68536
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Table 2. The average value of the development of the socio-economic system and environmental system of the animal husbandry in the township

-Environmental development mean

Figure 3. The average graph of the development of the social economic system and environmental system of the animal husbandry in this town

Average socioeconomic development

As can be seen from Figure 3, the comprehensive development level value of social and economic subsystems of animal husbandry in the township in 2013 was -1.356895, and that in 2018 was 0.68536. In 2018, the comprehensive development level of the social and economic subsystem of animal husbandry in the township was 2.042255 higher than that in 2013, and the proportion increased by 297%. It shows that the animal husbandry of the township has been on a steady upward trend from 2013 to 2018. However, in 2013, the average development value of environmental system of animal husbandry in the township was -0.298526, and the average value of environmental system development in 2018 was 0.081365. Although the average value of the development of the environmental system of animal husbandry in the township showed an upward trend, it reached the peak in 2014, and then decreased to -0.085621. Later, due to the attention of the environment, the average value of the development of the environmental system of animal husbandry in the township increased steadily.

## 4.3. Coordination Degree of Ecological Animal Husbandry System in the Township

Based on the above comprehensive development evaluation value of social economic system and environmental system of the township, the system coordination degree of ecological animal husbandry in the township can be calculated through the formula, as shown in Table 3:

Year	2013	2014	2015	2016	2017	2018
Coordination degree	1.4236589	2.6523697	-0.085621	0.356411	0.365236	0.652136
Average	-0.298526	0.156856	-0.085621	-0.035686	0.03541	0.0813654
socioeconomic						
development						
Environmental	-1.356895	-0.653654	0.212368	0.356412	0.892365	0.685365
development mean						

Table 3. Average value of social economy and environmental system of animal husbandry in HeshiTown, coordination degree of sustainable development system



Figure 4. Average value of social economy and environmental system of animal husbandry in Heshi Town, coordination degree of sustainable development system

As can be seen from Figure 4, from 2013 to 2018, the coordination degree of ecological animal husbandry in the township was unstable and fluctuated greatly. In 2015, it declined rapidly, resulting in the coordination degree value of the township less than zero in the past six years, which was totally disharmonious development. The main reason is that the increase of animal husbandry leads to the increase of pollution emission. Therefore, in 2015, there was a major contradiction between the development of breeding environment and social and economic development, and the coordination degree of ecological animal husbandry development was the lowest. With the introduction and implementation of various pollution prevention and control measures, preferential policies, breeding related technologies and supporting measures, as well as the gradual attention of relevant departments, the contradiction between the development of animal husbandry and the environment began to be alleviated.

#### 4.4. Analysis on the International Development Trend of Animal Husbandry in the Township

Referring to the data of animal husbandry in the town from 2013 to 2018, it is found that the growth of animal husbandry in the town has a medium cyclical change trend. In order to better explore the long-term change trend, we should filter the periodic change trend. At present, filtering is a widely used smoothing method in macroeconomics to obtain the long-term trend component of time series. It can be used to separate the long-term growth trend and short-term fluctuation components in the economic variable sequence. The data obtained by filtering is a stationary sequence. The specific trend is shown in Figure 5:



Figure 5. Comparison of actual and simulated animal husbandry products marketing data in the township

It can be seen from Figure 5 that the simulation results and actual values of the annual consumption expenditure of livestock products and the consumption expenditure of residents' livestock products show that the maximum error rate is 2.7%, the minimum error rate is 0.8%, and the average error rate is 1.2%. This result fully shows that the simulation model of animal husbandry eco-economic development system has a good fitting degree, describes the actual development of the Township animal husbandry eco-economic system, and shows that the structural design and parameter selection of the model are reasonable.

This paper reviews the development of animal husbandry in the township from 2013 to 2018, analyzes the development status and development trend of animal husbandry in the world, and analyzes the overall level, internal structure, problems, constraints and development advantages of animal husbandry development in the township. The macro environment and situation of the development of animal husbandry in the township were analyzed, so as to find out the development orientation of animal husbandry in the township.

The international development trend of Township animal husbandry, first of all, we should ensure the new connotation of animal husbandry product safety, that is, quality safety and quantity safety. The Township animal husbandry products should develop in the direction of high-grade, characteristic and flavor. In terms of the regional layout of animal husbandry production, it is planned to divide into three areas: controlled breeding area, moderate breeding area and developmental breeding area.

#### 5. Conclusion

More and more people pay attention to the development of animal husbandry in China, and the development of ecological animal husbandry has become the focus of attention and research. When we apply western theories, we should pay attention to the differences in national conditions and even regions, seek truth from facts and proceed from reality. Practice is always the sole criterion for testing truth, and its essence is to remove its dross. The advantages can be explored continuously, not immutable. The comparative advantages of different regions will change with time and government policies. Market competition is the competition of advantages and characteristics. To

grasp the market firmly, we must tap our own potential, firmly grasp our own advantages, and constantly develop and strengthen our own advantages through practice. We should constantly find new advantages, support policy advantages, capital advantages and technical advantages, change the situation of "advantages but no potential", and transform the advantages of animal husbandry into benefit advantages and the advantages of animal husbandry resources into economic advantages.

The international development trend of Township animal husbandry, first of all, we should ensure the new connotation of animal husbandry product safety, that is, quality safety and quantity safety. The Township animal husbandry products should develop in the direction of high-grade, characteristic and flavor. In terms of the regional layout of animal husbandry production, it is planned to divide into three areas: controlled breeding area, moderate breeding area and developmental breeding area.

This paper mainly studies the system of ecological animal husbandry, mainly uses the method of sustainable environmental assessment to analyze the characteristic industry of animal husbandry and breeding in the township. The development system of ecological economy of animal husbandry determines the strategic choice of the development direction of ecological economy of animal husbandry. We must follow the strategy of sustainable development. The next research content analyzes the existing internal factors of eco-economic system, and analyzes the relationship between elements.

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#### **Data Availability**

Data sharing is not applicable to this article as no new data were created or analysed in this study.

## **Conflict of Interest**

The author states that this article has no conflict of interest.

#### References

- [1] Gan l, Hu x. The Pollutants from Livestock and Poultry Farming in China—Geographic Distribution and Drivers. Environ, Pollut Res Int, 2016, 23(9):8470-8483. DOI: 10.1007/s11356-016-6075-9
- [2] Tao L. development of circular economy of characteristic breeding industry in Guangxi. Agricultural research in Asia: English version, 2016, 000 (007): p.28-32.
- [3] Gonin m. Adam Smith's Contribution to Business Ethics, Then and Now. Journal of Business Ethics, 2015, 129(1):1-16.
- [4] Jose d j r, Elias i, Ricardo Cruz d, Et Al. Uniform Stable Radial Basis Function Neural Network for the Prediction in Two Mechatronic Processes. Neurocomputing, 2016, 227(Mar.1):122-130. DOI: 10.1016/j.neucom.2016.08.109
- [5] Pedro m. Louren ço, Piersma t. Migration Distance and Breeding Latitude Correlate With the Scheduling of Pre-Alternate Body Moult: a Comparison Among Migratory Waders. Journal of Ornithology, 2016, 156(3):1-9. DOI: 10.1007/s10336-015-1175-8
- [6] Trojak-Goluch a, Laskowska d, Kursa k. Morphological and Chemical Characteristics of

Doubled Haploids of Flue-Cured Tobacco Combining Resistance to Thielaviopsis Basicola And Tswv. Breed, 2016, 66(2):293-299.

- [7] Post t, Fang y, Kopa m. Linear Tests for Decreasing Absolute Risk Aversion Stochastic Dominance. Management Ence, 2015, 61(7): Págs. 1615-1629.
- [8] Khayatzadeh n, Mészáros, g, Utsunomiya y t, Et Al. Effects of Breed Proportion And Components of Heterosis for Semen Traits in a Composite Cattle Breed. Journal of Animal Breeding & Genetics, 2017, 135(1):45-53. DOI: 10.1111/jbg.12304
- [9] Fuerst c, James j w, Slkner j, Et Al. Impact of Dominance and Epistasis on the Genetic Make-Up of Simulated Populations under Selection: a Model Development. Journal of Animal Breeding & Genetics, 2015, 114(1-6):163-175.
- [10] Hill w g, m?Ki-Tanila a. Expected Influence of Linkage Disequilibrium on Genetic Variance Caused By Dominance and Epistasis on Quantitative Traits. Journal of Animal Breeding and Genetics, 2015, 132(2):176-186.
- [11] Gómez, f.a, Ballesteros l e. Evaluation of Coronary Dominance in Pigs; a Comparative Study with Findings in Human Hearts. Arquivo Brasilro De Medicina Veterinária e Zootecnia, 2015, 67(3):783-789.
- [12] Serenius t, Stalder k j, Puonti m. Impact of Dominance Effects on Sow Longevity. Journal of Animal Breeding & Genetics, 2015, 123(6):355-361.