

# *Animal Epidemic Prevention Management System and Legal Liability in Pig Farms*

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**Abstract:** In recent years, with the rapid development of economy of people, the development of animal husbandry and animal products quality also more and more important, all kinds of livestock and poultry disease more and more, a serious threat to human health, and the weak animal epidemic prevention system in our country, therefore, actively carry out pig farm animal epidemic prevention management system and legal responsibility research is very necessary. The purpose of this paper is to explore the feasibility of the animal epidemic prevention management system in pig farms and the implementation of the corresponding legal liability, and to analyze the problems in the management of pig farms. This paper makes a detailed investigation of the existing animal epidemic prevention management system of pig farms and the relevant laws and regulations, and on the basis of this, puts forward the scientific methods of formulating the relevant epidemic prevention management system, and probes into the relevant legal responsibilities and obligations. The results show that it is feasible to make use of scientific epidemic prevention management system and legal responsibility to effectively manage the pig farm, which not only effectively prevents the occurrence of animal disease, but also reduces the risk of disease by 45% in the breeding industry, promotes the development of the animal product industry, and increases the income of farmers by up to 35%.

## **1. Introduction**

Various epidemics in the animal environment not only cause huge economic losses to the normal production and business activities of livestock farmers in these areas, but also highly likely to directly and seriously endanger the normal life and health of people in other areas, and animals may also contain many animal pathogens and parasites. Accelerating the establishment of a basic agricultural animal disease prevention and health management system at the grass-roots level is the government's guarantees for the prevention of food safety for animal-derived diseases. With the

widespread use of veterinary drugs and animal feed chemical additives in the production process of animal feed in China, which has also seriously affected the normal health of the people. With the gradual improvement of the material quality of life of the grassroots people of our country, only by strengthening the animal epidemic prevention management system and legal responsibilities can we better serve the development of animal husbandry.

A large number of harmful livestock and poultry and their manure from pig farms cannot be converted into atmospheric pollutants without effective purification treatment, causing serious pollution and damage to the local ecological environment. The legal system is not fully implemented in the actual supervision process [1]. Some people ignore the harm caused by livestock and poultry farming due to weak environmental laws [2]. Some livestock and poultry farms do not have waste treatment facilities, or the equipment on pig farms cannot meet the huge feces capacity and cannot reach it [3]. Some pig farms will pile up manure randomly, causing serious pollution to water, soil, and air, destroying the ecological environment, and ultimately jeopardizing the people's right to survive in a safe environment. Disposing of livestock and poultry carcasses at will is a matter of moral corruption. To bear the corresponding legal responsibility [4].

This article is to explore the feasibility of using microscope to observe the changes of athlete's skeletal muscles. Watanabe gave a detailed introduction to the epidemic prevention management system, analyzed the problems in the implementation of the management system, and explained the importance of the management system [5]. Mackenzie put forward the importance of management system in his article, introduced the research significance and research status of pig farm epidemic prevention, and expounded the impact of formulating management system on pig farms, and effectively reduced the mortality rate through the development of epidemic prevention management system [6]. In the article, Mark elaborated on the legal responsibility system for epidemic prevention, and pointed out that responsibility is to individuals, and the legal liability system is used to reduce the incidence of epidemics [7]. Rodriguez proposed the importance of legal responsibility. Through strict laws and regulations, it has promoted the development of the livestock product industry, prospered the economy, and increased people's income [8].

The main research content of this article is the animal epidemic prevention management system and legal responsibility of pig farm. Different from the previous research, this article based on the previous research results on the pig farm epidemic prevention management system and legal responsibility for a new design [9]. A number of innovations: First of all, formulating an epidemic prevention management system, effectively reducing animal mortality and increasing people's economic income. Secondly, in order to design a new system plan, this article took the lead in formulating a management system and legal responsibilities, and analyzed the impact of the management system on the pig farm. In addition, for the first time, it is possible to adopt the method of establishing an epidemic prevention management system and legal responsibility, and more effective measures to fundamentally strengthen the prevention and control and purification of animal and livestock epidemic diseases, improve the safe use of animal and animal husbandry products in China, and protect the life and body of our people and ethnic groups. Health, enhance the development of the international market competitiveness of China's animal and animal products industry, ensure the healthy and sustainable development of China's animal husbandry, and promote the healthy development of the national economy.

## 2. Questions and Suggestions on Epidemic Prevention

### 2.1. Epidemic Prevention in Pig Farms

While the livestock industry directly brought a huge increase in the total sales of livestock and

poultry products and social and economic benefits year-on-year, it also directly brought about the major problems of relatively concentrated feces and urine in the current livestock and poultry market and the difficulty of manure disposal. Due to many natural reasons such as deviations in the ecological and environmental resource protection awareness of livestock and poultry farmers and livestock and poultry farming production enterprises, and inadequate environmental protection management and law enforcement systems, a large number of farming feces cannot be processed in time. Soil and culture water quality may also cause various serious damages [10]. The prevention and control of epidemic production is not paid enough attention, and we believe that as long as we have the anti-disease vaccine, everything will be fine, which will directly affect the actual effect of the prevention and control of epidemic production. Due to the heavy abuse of livestock and poultry drugs in the production process of livestock and poultry, the serious pollution to the residues of various pharmaceutical ingredients in livestock and poultry will cause great health hazards to livestock and other humans [11]. Possibly residual toxic drugs in animal products are mainly used in veterinary drugs, artificial drugs, disinfectants, pesticides and other toxic chemical substances. At present, the problem that is widely concerned by the society is the prohibition of the use of drug residue doses of prohibited [12]. In addition, excessive abuse of antibiotics and androgens, excessive use of vitamins and trace elements drugs may also directly lead to excessive residues of these drugs. Endangering the health of the people, the prevention and control of environmental pollution in livestock production and poultry production continues to improve with the relevant policies, laws and regulations [13]. Due to the strong awareness of small farmers in rural areas in China, farmers are still living at a low level of food and clothing, because they want to rely on the development of the pig breeding industry to reach a well-off level, lack of funds, and have no economic ability to purchase more advanced breeding machinery and equipment on their own. Preventing the invasion of breeding pig viruses, bacteria, and other pig parasites into the breeding environment has created favorable conditions beyond the direct breeding of various pig breeding professional breeding farms, which directly and seriously affects the current health and epidemic prevention of various pig farms in China. The quality of professional breeding technology of various pig products in China has also directly and seriously threatened the safety, sustainability, healthy, harmonious and sustainable development of various professional pig breeding and animal industries in China [14].

China's animal husbandry is developing rapidly and healthily, the number and types of animal breeding stock, poultry and other animal breeding products imported from abroad have increased significantly, and there is a lack of effective epidemic monitoring and monitoring methods and related supporting measures in China. Epidemic diseases will also be introduced when breeding poultry products [15]. Livestock and poultry transactions in major domestic markets are frequent. Now when the intensive livestock and poultry breeding epidemic prevention management model is inexperienced and the technical level of epidemic prevention and sanitation management cannot keep up, new types of new livestock and poultry animal diseases continue to appear in various parts of the world, causing huge economic harm. At present, the response management mechanism of important emergency organizations such as the dispatching of epidemic prevention epidemic prevention command institutions, epidemic prevention and diagnosis, and extinguishment risk control in China is not perfect and perfect. The response mobilized a lot of manpower or financial and material resources, and adopted effective measures for animal emergency epidemic prevention and treatment to quickly and effectively prevent and control animal epidemics in epidemic areas. At present, there is no effective policy information sharing and exchange mechanism and policy organization coordination work mechanism between relevant departments and regions, so joint prevention, joint governance and joint control are difficult to implement effectively.

## 2.2. Regulatory Recommendations and Strategies

Through various methods such as special publicity training, special supervision and inspection, and adopting various forms such as special explanations by law enforcement experts, on-site supervision and inspection, the nation's pig farmers will be more conscious, and the prevention and treatment of pig farms will be equally important, and prevention will be more important than governance. Anti-epidemic awareness, let the pig farm owners know the law, understand the law, and abide by the law. The government and the animal epidemic prevention department, the animal epidemic prevention department and the animal epidemic prevention department sign the target management responsibility letter, and the animal epidemic prevention department and the farm. Sign the notice of animal epidemic prevention responsibility with the farm, clarify that the person in charge of the farm is the first person responsible for epidemic prevention, the owner of the farm is the main body of animal epidemic prevention, and the owner of the pig farm should fulfill the obligation of epidemic prevention, etc. What is really necessary is to implement the supervision in place persons with responsibilities in place. Establish and improve the registration and review system for the registration and management of farms, in accordance with the basic principles of on-site supervision and management of national territories, fully and accurately grasp the actual production and operation scale, animal disease and epidemic prevention equipment conditions of professional pig farms of each origin. Relevant situations such as the inspection and quarantine point of origin, the harmless disinfection and treatment of diseased and dead pork, timely registration of records, and timely update of the dynamic changes in the management of large-scale pig farms, in strict accordance with national laws and regulations on animal disease prevention and epidemic prevention.

The relevant regulations supervise and approve the issuance of "Conditions for Animal Epidemic Prevention Conditions", set up a leading team of epidemic prevention experts to supervise and review, and carry out on-site supervision and review in accordance with relevant requirements in a timely manner, so that whoever signs it seriously and who is responsible is responsible. The actual situation requires scientific planning to set up customs inspection checkpoints for animal origin quarantine origins, implement the procedures of open origin checkpoints and door-to-wall inspection systems, establish rules and regulations for inspectors of farm origin origins, and inform animal quarantine personnel at the origin. How to handle the application and other precautions in advance, strictly implement animal quarantine to the point of origin quarantine, strictly abide by the "six prohibitions" of the ministry of agriculture, and guide the construction of large-scale pig farms in accordance with local conditions. In addition to the deep burial method, the qualified build supporting facilities for harmless disinfection and treatment of diseased and dead pork using incinerators, harmless, biogas digesters, biomass energy degradation, etc. A combination of special on-site inspection and daily on-site inspection mechanisms to ensure that each large pig farm is at least. Has been inspected more than 3 times, and the key special inspections have carried out the implementation of compulsory disinfection and immunization for the prevention and control of major harmful animal infectious diseases in pig farms, the implementation of the disinfection and immunization system, and the monitoring of immune antibody quality. As a core measurement indicator for the national assessment of animal epidemic prevention management, the animal disease epidemic prevention administrative department believes that it should timely implement the acceptance of key projects such as standardized pig farm breeding funds subsidies, insurance claims, and discount loans for large-scale pig enterprises in combination with relevant countries and local international implementations. It is recommended that a special animal health supervision institute at or above the county level send a special staff to participate in the acceptance audit.

### 3. Contents and Methods of Research on Epidemic Prevention Management System and Legal Responsibility

#### 3.1. Experimental Scheme

The awareness of production cleanliness of pig farms above the scale of production pollution awareness and treatment behavior is a broad reference to the cleanliness and awareness of pig farms above the scale in the three stages of production prevention, process pollution control, and end pollution control. And understand the production status and specific governance activities. Cognitive behavior theory believes that cognition is the process by which people recognize external things, it can influence or dominate people's behavior, and the degree of cognition can affect the direction and speed of behavior formation. Therefore, the establishment of large-scale pig farms to truly achieve the prevention of clean and flexible production management behavior, first of all, we must constantly improve the standard and cognitive management level of clean and flexible production, so as to achieve the establishment of large-scale pig farms to clean and flexible production. The implementation of good management practices can be seen from the clean content and growth characteristics of pig farming. Reasonable pig farm construction, equipment configuration and feed ingredients, as well as the quality of high-quality breeding pigs, feed water and veterinary drugs can prevent live pigs to a large extent. Large-scale farming waste generation. Regarding the preventive effect of the four inputs on the production of waste in the production of pig model, in addition to the quality of veterinary drugs, more than 70% of the 300 respondents indicated that they were "very familiar" and "familiar", as shown in Table 1.

*Table 1. Respondents' perceptions of the role of source prevention*

Project	Very familiar	Be familiar with	Familiar with the commonly	Be unfamiliar with
Swine breeds	40.42	41.34	17.65	5.13
Quality of feed water	36.29	45.54	19.32	3.54
Feed ingredients	30.25	44.59	17.40	1.76
Veterinary drug quality	29.41	39.40	24.43	9.12

It can be seen from the table that the breeder is not familiar with the reasonable pig farm construction, equipment configuration and feeding material composition, as well as the quality of high-quality breeding pigs, feeding water and veterinary drugs, which can prevent the generation of pig scale breeding waste to a large extent, so it needs to study hard.

#### 3.2. Experiment Content

Investigate the relevant basic conditions of 10 counties and cities, 5 township offices, 20 animal quarantine officers, 20 village-level animal epidemic prevention officers and some large-scale farmers, understand the basic situation of the animal epidemic prevention system, and understand the investigation Statistical analysis of the situation and put forward corresponding countermeasures and suggestions. The slaughter and quarantine work of 100 live pig slaughterhouses and 50 meat food processing enterprises. The number of annual pig slaughterhouses is about 10,000 fixed pigs. Farms and districts have 10 county-level townships, 10 county-level rural township fairs, and 10 county-level city township farmer's markets for daily pig supervision and slaughter work, and undertake the hourly inspection and control tasks of 5 border animal quarantine inspection stations undertake sampling and testing of inputs such as prohibited drugs. Comprehensive statistical analysis of the current status of animal epidemic prevention systems. Established an office in the animal husbandry department, and at the same time clarified the responsibilities of the government

and various departments, and established a responsibility system and accountability system. The funding for animal epidemic prevention has also been increasing year by year. The staff's labor remuneration is basically in place, but the emergency reserve fund is not in place in individual counties and cities. The government's investment in animal epidemic prevention work is mainly limited to the prevention and control of major animal epidemic diseases, because the responsibility of the government's first responsible person is clearly defined. On this basis, inference analysis is carried out, and further countermeasures and suggestions for improving the management level of the animal disease prevention service system are put forward. According to the content of this research topic, a long-term empirical investigation and research is carried out, on this basis, the research summarizes and proposes some main factors that restrict the technical operation of China's animal disease epidemic prevention management system and other main factors affecting the animal epidemic prevention system technology, and promptly proposes to improve the corresponding technical advice.

### 3.3. The Significance and Principle of the Experiment

Some large-scale pig production enterprises have gradually begun to plan to build large-scale intelligent pig farms that are fully enclosed, air-purifying and filtering, and automated feeding systems. The fresh air that enters such stock farms is often breathed in by negative pressure through an air filter. The air is absorbed by the negative pressure filter and the average particle size is 0.5-1.0 $\mu$ m. The filtration efficiency of the medium is as high as 90%. It can effectively and completely remove all kinds of bacteria, viruses, droplets and other dust in the air environment in the field, cutting off the main way of continuous transmission of human epidemics, greatly reducing the continuous transmission of human infectious diseases and the incidence of livestock diseases. In short, the original Breeding and raising pig farms for the construction of epidemic prevention and control management systems. Biosafety management is undoubtedly one of the most important determinants of the safe growth and development of the original breeding farms. In the production practices of the original breeding farms, the establishment of safe live pigs. The population epidemic prevention management system, the implementation of standardized sanitation and epidemic prevention management systems, and the adherence to the construction of safe and practical new-type agricultural pig farms are all important contents of the three major systems of China's epidemic health prevention and control management system and biological safety management construction.

Workers must properly apply various biological safety management measures in a scientific and standardized manner in order to better provide effective safety guarantee for the healthy production development of animal husbandry in China. Biosafety control measures are currently the most effective epidemic prevention and control measures, and an important prerequisite for the control and prevention of all epidemic diseases. It takes the control of disease and comprehensive disease control as a systematic project. Treat, pay special attention to the entire agricultural production and the organic interconnection of various components in the ecosystem in terms of location and space. National laws and regulations clearly stipulate the management of township governments at all levels and the functions of animal epidemic prevention. The functions of major animal epidemic prevention institutions have all made clear statements and regulations. First, they must make full use of the statistical functions of the central database and the traceability portal website to timely statistics on animal production epidemic prevention and epidemic information; animal production epidemic prevention information monitoring points of large-scale farms of the Ministry of Agriculture. It should be uploaded regularly and accurately. Information such as large-scale breeding information, inventory, and epidemic diseases should provide basic data for superior



decision-making; second, make full use of the network management of animal epidemic prevention and statistical functions of business reports, and release animal epidemic information in a timely manner; third, formulate and revise public administration performance appraisal system. Amending the "Measures for reward and punishment of animal epidemic prevention work" to provide positive incentives for the effective management of major animal epidemic situations at all levels of government and their staff; implement strict accountability for the prevention and control of major animal epidemic diseases. System to completely eliminate the impact of local protectionism.

#### 4. Analysis of Breeders and Quarantine Personnel in Animal Epidemic Prevention Management of Pig Farm

##### 4.1. Analysis on the Status of Breeders in the Animal Epidemic Prevention Management System of Pig Farm

Village-level epidemic prevention workers have a lot of labor, not only immunizing against a disease, but township animal quarantine workers have a lot of labor. Although the reform plan has been introduced, they have not been implemented, but most law enforcement personnel have basically no legal establishment. It is clear that it may not be an ordinary farmer or an industrial worker, and more of it is not a senior cadre. It is not correct to carry out a special administrative inspection to enforce the law. Their specific identity has always been unclear. It is most likely not an ordinary farmer or an ordinary worker. Therefore, most border quarantine workers are not eligible for social pension insurance, and generally only private enterprises. There is social pension and employee unemployment medical insurance. Therefore, quarantine workers often feel that there is no pension security in the future, and they lack the initiative and dedication to work. From the above situation, it can be clearly seen that whether they are border quarantine officers or other quarantine officers, their actual income is unstable and not high, and their worries have not been resolved, because the purpose of this system reform is to include a part of the personnel into the central finance. This means that this part of the personnel will be able to have a stable economic income and a socially secure future. Limited resources and positions will inevitably become an important goal for everyone to compete for. Under the current system, the final result of the reform is very likely to be "reverse elimination": first, animal husbandry and veterinarians who do not have professional anti-epidemic techniques are diverted by insiders, while background veterinarians and laymen have won the iron rice bowl. Moreover, the animal epidemic prevention work is highly professional. Once hired, the layman leading the layman can only make the working environment vicious circle, and the breeder's education level is low, as shown in Table 2.

*Table 2. The education of village animal epidemic prevention officer and primary animal quarantine officer*

Education	Junior high school	Senior high school	Technical secondary school	Junior college
Villa level epidemic prevention personnel	433	305	456	201
Quarantine inspector	55	32	123	156

Among the grass-roots epidemic prevention and quarantine personnel, according to the conditions for the recruitment of village-level epidemic prevention personnel and livestock animal farm quarantine personnel, the recruitment targets of epidemic prevention personnel should be colleges and universities with professional qualifications related to animal husbandry and animal husbandry. Those who have the same education or above or have the same level of education as high school or above.

More males and fewer females to adapt to the difficult post of epidemic prevention requires the village-level epidemic prevention staff to have 800 males and 45 females: 366 quarantine males and 66 females. Female colleagues rarely engage in quarantine work, because epidemic officers and quarantine officers have a large workload and require a lot of labor, and the epidemic officer needs great strength when catching pigs during epidemic prevention. Male adults, and working in the early hours of the night, are very dangerous, which also reflects the characteristics of men who are more suitable for carrying out prevention work. The personnel change is large, and the epidemic prevention team is unstable. A total of 900 village-level animal epidemic prevention personnel and 350 grass-roots animal quarantine personnel have been hired. 435 resigned because they have been working long-term to earn much and do not carry out animal epidemic prevention. The personnel change should be right the improvement of the team's quality is beneficial. Most of the resignations are young and middle-aged. The main destination after resignation is to work in large cities. Most of the technical staff who are mainly engaged in livestock farms are dismissed. The young people who have just entered the animal epidemic prevention industry, cannot be competent for the technical work of animal epidemic prevention, the work carried out without disappointment was dismissed, the specific data is shown in Figure 1.

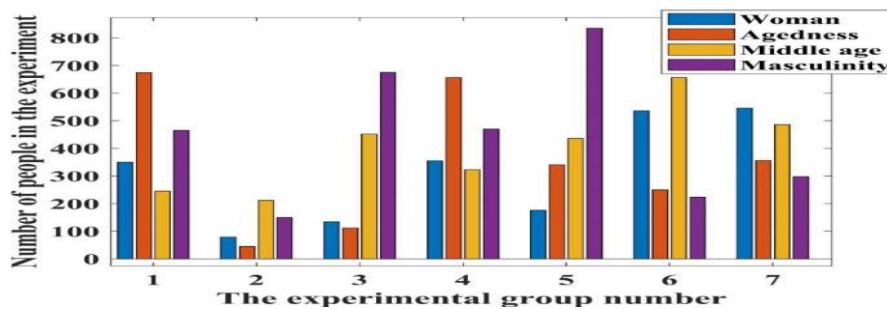


Figure 1. The status of breeders in the animal epidemic prevention management system of pig farms

From the data in Figure 1, it can be seen that due to the heavy workload of the epidemic prevention personnel, the epidemic prevention personnel must be young and laborious, and use young epidemic prevention personnel, and reduce the risk of epidemic diseases in the breeding industry by 45%.

#### 4.2. Analysis of the Income of Quarantine Personnel in the Animal Epidemic Prevention Management System of Pig Farm

The quarantine charge work has been self-receiving and self-supporting for many years. The finance has not invested any money in them. The salaries of personnel and other quarantine work funds are all returned by the government through quarantine charges, but the standards for quarantine charges are very low. Moreover, the work input is large, the cost is high, and the income of the quarantine personnel is very low. The quarantine personnel, who hold the law enforcement certificate issued by the Provincial Agricultural Commission, can enforce the law on behalf of the animal husbandry department. However, most of the personnel are not staffed, and their identity has been unclear. They are neither farmers nor workers, nor are they cadres. They are not correct in carrying out administrative law enforcement. Their identity has been unclear. It may not be an ordinary farmer or an ordinary worker. Therefore, most quarantine personnel do not have pension insurance, and ordinary private enterprises also have pension and unemployment insurance. Therefore, quarantine personnel feel that they will not have Security, lack of motivation and professionalism. It can be seen from the above that both the income of the epidemic prevention



personnel and the quarantine personnel are unstable and not high, and the worries have not been resolved. The treatment problem has become the main factor of the instability of the prevention and inspection team, as shown in Figure 2.

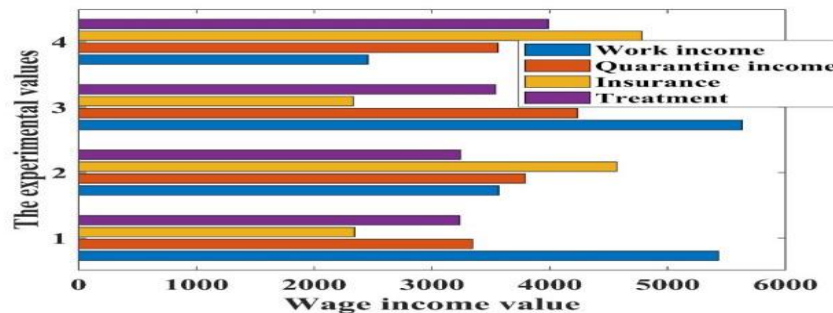


Figure 2. The income of quarantine officers in the animal epidemic prevention management system of pig farms

It can be seen from the data in Figure 2 that income is very important for quarantine officers. Stable income and treatment can promote them to work more seriously, allow more young people to stay, prevent the aging problem, and improve the quality by 38%. It has promoted the development of the livestock product industry and increased the income of farmers by up to 35%.

## 5. Research and Analysis on the Legal Responsibility of Animal Epidemic Prevention and Disinfection and Epidemic Prevention in Pig Farm

### 5.1. Research and Analysis on Legal Responsibility of Animal Epidemic Prevention in Pig Farm

Veterinary drugs and immune biological vaccines used in pig farming animals must strictly comply with the relevant provisions of "Quality Standards for Veterinary Biological Products", and immunization of veterinary organisms should be carried out regularly in accordance with the procedures. The application of veterinary Chinese medicinal materials and Chinese medicinal ingredient preparations should be conducted under the guidance of a veterinarian. Electrolyte supplements, vitamins, and digestive aids should be conducted under the guidance of a veterinarian and comply with the relevant national regulations. Strictly abide by the veterinary drug national regulations for the role, drug use, dosage, course of treatment, and precautions. The veterinary drug national prescribed drug withdrawal period must be strictly implemented, and the therapeutic drugs allowed to be used that do not meet the prescribed drug withdrawal period should strictly abide by the drug withdrawal. For a period of not less than 35 days, it is prohibited to add therapeutic drugs to food and animal feed for a long time, and it is necessary to strictly abide by the norms and standards used by the national veterinary medicine industry. During the drug suspension period, strictly in accordance with the veterinary drugs related to the Announcement No. 176 of the Ministry of Agriculture and Rural Affairs "Catalogue of Drug Varieties Prohibited in Feed and Animal Drinking Water", Announcement No.193 "List of Veterinary Drugs and Other Compounds Prohibited by Food Animals" and other veterinary drugs. The regulations stipulate that the use of prohibited drugs for breeding animals shall be prevented, and detailed records for the use of drugs for breeding animals shall be established and kept. All the materials under detailed records shall be archived and kept for more than 2 years. The farm should establish and maintain records of routine immunization procedures, including the type of vaccine, and the specific data is shown in Figure 3.

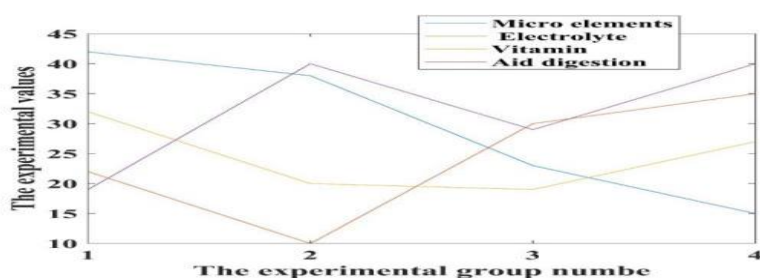


Figure 3. The effect of legal responsibility management of veterinary medicine epidemic prevention management

From the table in Figure 3 for data analysis we can see clearly improve the requirements of the overall rate of epidemic prevention for veterinary medicine feed pigs is do veterinary medicine pig individual overall immune from head to foot, ensure the veterinary drug pig's overall in the short term can reach 100%, improved the perennial pig antibodies to adapt and immune defense ability of the disease.

## 5.2. Analysis of Management System of Animal Disinfection and Anti-epidemic System in Pig Farm

There should be a disinfection gate at the entrance of the living area of the original breeding farm, and a disinfection tank should be arranged for each door in the production area. The disinfection tank water should be replaced at least once a day to maintain the effective concentration of the pool water. Irrelevant personnel are strictly prohibited to enter. When entering, the relevant personnel should enter the gate of the disinfection pool through the elevator, and strictly do the site. The entry and exit sterilization registration records of the relevant staff members. At the beginning of the month, the living area of the original pig farm and its surrounding environmental greening facilities were cleaned to disinfect, kill rodents, and kill mosquitoes and flies. No person or organization is allowed to purchase original breeds of pigs, the closed management of the original pig farm and the living area of the whole farm is implemented. Staff of all types of enterprises at all levels are not allowed to go out casually. Employees of various enterprises return to the farm on leave or new employees must be isolated in the living area of the original breeding farm for 3 days before opening the door to enter the production area of the original breeding farm. Do a good job in the management of the sanitation and environmental greening facilities in the farm, and thoroughly disinfect the area within 5m on both sides of the production and the open space of the pig house every Saturday. Loaders and related vehicles must be thoroughly disinfected when entering the living area of the original pig farm. Vehicle loaders and drivers are not allowed to leave the vehicle's cab at random to contact the staff in the field. The vehicle loaders and unloaders must change clothes and change shoes in the field for thorough disinfect. The living area of the original breeding farm is cleaned and disinfected once a month on the 15th. The specific data is shown in Figure 4.

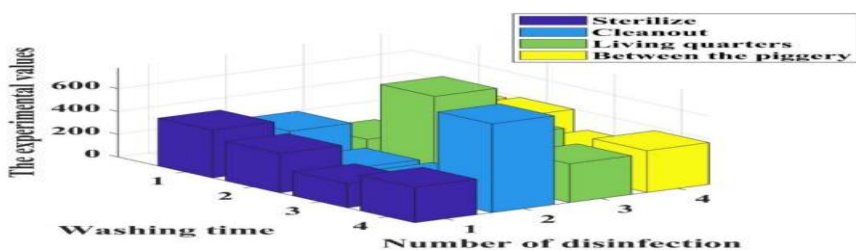


Figure 4. Analysis of cleaning and disinfection

As can be seen from Figure 4, the ultimate goal of cleaning and disinfection of pig breeding is to reduce environmental pollution brought by breeding and increase breeding income at the same time. The two are similar in nature. With the reduction of environmental pollution, pig breeding can obtain a good growing environment and reduce the incidence of disease by 65%.

## 6. Conclusion

(1) The epidemic prevention of pig farms is very important. The establishment and improvement of the epidemic prevention supervision and management system of pig farms above designated size and their legal responsibilities. Scientifically and rationally formulate and plan the epidemic prevention layout, strictly implement the epidemic prevention standardization supervision and management. The important means and measures for the healthy and sustainable development of production in the pig breeding industry. In the end, the good social and economic benefits of the pig breeding industry have been effectively achieved.

(2) An analysis of the feasibility of the management system and legal responsibility of the pig farm's epidemic prevention researched in this paper. The corresponding working principles and theoretical guidance are proposed, and the excellence and uniformity of the implementation of the epidemic prevention management system and legal responsibility are explained. Effective prevention and control measures are a way to effectively block the occurrence and spread of major animal diseases and prevent the occurrence of major animal diseases. Effectively prevent the occurrence of animal diseases, reduce the mortality of pigs, and reduce the risk of diseases in the breeding industry 45 %.

(3) The formulated epidemic prevention management system and legal responsibility have played a very important auxiliary role, reducing the mortality rate, through the research of epidemic prevention management system and legal responsibility. The research results show that the use of epidemic prevention management system and legal responsibility to manage the pig farm model. It is feasible, effectively preventing the occurrence of animal diseases, reducing the disease risk of the breeding industry by 45%, promoting the development of the livestock product industry, prospering the economy, and increasing the income of farmers by 35%.

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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] Chan, K. W., Miller, B. (2015) *Capitalist Pigs: Governmentality, Subjectivities, and the Regulation of Pig Farming in Colonial Hong Kong, 1950-1970*, *Environment and Planning*, 33(6), pp. 1022-1042. <https://doi.org/10.1177/02637758155598154>
- [2] Farouk, A., Alahmadi, A., Ghose, S., & Mashatan, A. (2020) *Blockchain Platform for Industrial*

- Healthcare: Vision and Future Opportunities. *Computer Communications*, 154, 223-235. <https://doi.org/10.1016/j.comcom.2020.02.058>
- [3] Postma, M., Backhans, A., Collineau, L. (2016) *The Biosecurity Status and Its Associations with Production and Management Characteristics in Farrow-to-Finish Pig Herds*, *Animal*, 10(03), pp. 478-489. <https://doi.org/10.1017/S1751731115002487>
- [4] Kim, M. N., Baek, S. H. (2017) *A Study on Ubiquitous Environments Based on the Animal and Plant Management System in Green House*, *Wireless Personal Communications*, 93(1), pp.1-11. <https://doi.org/10.1007/s11277-016-3924-2>
- [5] Watanabe, T., Nakahara, Y., Asakura, S. (2015) *Sociological Factors Influencing the Practice and Attitude Towards Pig Farm Hygiene in Hokkaido Prefecture, Japan*, *Journal of Veterinary Epidemiology*, 19(2), pp.100-107. <https://doi.org/10.2743/jve.19.100>
- [6] Mackenzie, S. G., Leinonen, I., Ferguson, N. (2015) *Accounting for Uncertainty in the Quantification of the Environmental Impacts of Canadian Pig Farming Systems*, *Journal of Animal Science*, 93(6), pp.3130-43. <https://doi.org/10.2527/jas.2014-8403>
- [7] Mark, R., Theobald, a., Alberto Sanz-Cobena a, Antonio Vallejo a. (2015) *Suitability and Uncertainty of two Models for the Simulation of Ammonia Dispersion from a Pig Farm Located in an Area with Frequent Calm Conditions*, *Atmospheric Environment*, 102(167), pp.167-175. <https://doi.org/10.1016/j.atmosenv.2014.11.056>
- [8] Rodriguez-Entrena, M., Salazar-Ordenez, M. (2015) *Assessing the Potential Effects of the European Union Multilevel Approach to the Coexistence Policy*, *European Review*, 23(4), pp.489-500. <https://doi.org/10.1017/S1062798715000332>
- [9] Lipendele, C. P., Lekule, F. P., Mushi, D. E., (2015) *Productivity and Parasitic Infections of Pigs Kept Under Different Management Systems by Smallholder Farmers in Mbeya and Mbozi Districts, Tanzania*, *Tropical Animal Health and Production*, 47(6), pp.1121-1130. <https://doi.org/10.1007/s11250-015-0836-1>
- [10] Surinder, K., Diksha, K., Vandana, K., *Control of Enviornmental Parametrs in A Greenhouse, Fusion: Practice and Applications*, (2020) Vol. 1, No. 1, pp: 14-21 (Doi : <https://doi.org/10.54216/FPA.010102>)
- [11] Sousa, F. A., Campos, A. T., Cecchin, D. (2017) *Thermo-Acoustic Environment of a Pig Farm Facility with Different Superimposed Bed Materials*, *Journal of Animal Behaviour & Biometeorology*, 5(3), pp.78-84. <https://doi.org/10.31893/2318-1265jabb.v5n3p78-84>
- [12] Xiang, X., Li, Q., Khan, S., Khalaf, O.I. (2021) *Urban Water Resource Management for Sustainable Environment Planning Using Artificial Intelligence Techniques*. *Environmental Impact Assessment Review*, 86, 106515 <https://doi.org/10.1016/j.eiar.2020.106515>
- [13] Nevrkla, P., Eva Václavková, Zdeněk Hadaš (2016) *Effect of Farm on Productive and Reproductive Performance in Sows of Prestice Black-pied Pig*, *Acta Universitatis Agriculturae Et Silviculturae Mendelianae Brunensis*, 64(4), pp.1233-1237. <https://doi.org/10.11118/actaun201664041233>
- [14] Croton, G. A. (2018) *It's Always Windy in McCain valley: Vicarious Liability Under the Migratory Bird Treaty Act*, *Hastings Law Journal*, 69(2), pp.647-674.
- [15] Mugeru, A. W., Nyambane, G. G. (2015) *Impact of Debt Structure on Production Efficiency and Financial Performance of Broadacre Farms in Western Australia*, *Australian Journal of Agricultural and Resource Economics*, 59(2), pp.208-224. <https://doi.org/10.1111/1467-8489.12075>