Application of Computer Network Technology in Animal Husbandry Development

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Abstract. With the rapid development of information technology, people's production and life are gradually going into the information age. In recent years, information technology and biotechnology integration have brought new impetus to the development of modern animal husbandry. Information technology is widely used in animal husbandry production for the health and speed of rapid development of animal husbandry has helped a lot. The application status of information technology in the development of animal husbandry is analyzed in order to promote the modernization of our country. The prosperous development of animal husbandry provides the theoretical basis.

Keywords: Information technology, biotechnology integration, husbandry production, animal husbandry

Since the 1980s, China's information technology, the rapid development and the widespread use of the technology have been greatly promoted progress in social production in our country. In recent years, information technology and animal husbandry continuous integration of production have effectively promoted the modernization of animal husbandry in China healthy and rapid development. Therefore, in-depth exploration of information technology in animal husbandry and the application in industrial production have become information field and animal husbandry field one of the hot topics in research. Author on information technology in animal husbandry and the application status of development are analyzed in order to promote the development of our country. The prosperity and development of modern animal husbandry provide the theoretical basis.

1. Computer network technology and animal husbandry cross-field research.

1.1. Production evaluation and management countermeasures

Through the use of computer simulation technology and the establishment of mathematical models can...
realize the evaluation of animal production benefit Kumamoto et al [1]. By using computer simulation technology and building a random model, the pair realized that the cattle are managed and netted in different ways during the breeding period assessment of earnings. Using mathematical model and computer simulation technology, can to effectively analyze the structure and breeding scale of livestock and poultry, animal production tube rationale provides the basis for decision making. Liang Lin et al [2]. Using mathematical models and calculations Computer simulation is used to simulate the genetic value of sheep life cycle management analysis of wool production performance.

1.2. Animal genetic evaluation
Information technology can be used to study the genetic characteristics of animals learning evaluation. For example, using the optimal linear unbiased estimation (BLUP) model, a random simulation on a computer can be performed on the male and female of a herd proportion, population size, trait inheritance, etc. The coefficient of genetic progression and population inbreeding changes, thus the process of heredity is promoted [3]. In addition, modern network technology can also be used connect with the computer to share the information and evaluate the genetic traits uniformly.

1.3. Feeding and management
The use of database technology allows access to animals in specific environments carry out information management, also can record and preserve livestock and poultry individual and data on group performance. In actual production, yes by analyzing these data and making a reasonable production plan, realize information system management. By information technology to analyze the problems existing in cow management, DHI can also be used to test the milking performance of cows [4].

| Table 1. Statistical table of sows’ production indexes during the test period |
|----------------|-------------------------------|----------------|
|                | the experimental group was given a formula of grass powder | Control group standard formula |
| The sow numbers | 90                            | 87 |
| Average litter size | 13.7                        | 12.8 |
| Average litter size alive | 12.6                        | 11.8 |
| Mean brood size | 11.0                          | 9.4 |
| Number of estrus in late weaning period | 163                          | 136 |
| Number of elimination in feeding period | 8                            | 21 |

1.4. Assist in animal disease diagnosis
Livestock and poultry can be built by artificial neural network and intelligent reasoning disease diagnosis system. Huang shenghai etc.[5]. Established for cow disease monitoring the knowledge system at MAST, managers can follow DHI the system to analyze the cow population mastitis, for cow’s control of mastitis provides solutions.

1.5. Quality control of animal products
The use of computer image processing techniques can be applied to carcass quality and grades are assessed [6], as well as livestock products and individual animals carry out marking. In addition,
livestock and poultry can be slaughtered through computer networks slaughter, animal products production processing and sales logistics and other links for quality quantity monitoring, so as to achieve efficient management of the whole industry chain.

2. Technology and method of realizing animal husbandry information

2.1. Database technique
Database technology can realize the data of animal husbandry management system mining. This technology is developed in the Web system, which can establish C/S, B/S hybrid application system, but also can be implemented in multiple languages applications, such as Visual, JAVA, C++, Basic, etc. [7].

2.2. Forecasting technique
The spatial model method and geographic information system (GIS) can be used to warn and predict animal outbreaks. By understanding the outbreak to better predict and broadcast outbreaks, it provides scientific basis for the decision-making of animal disease prevention and control department [8].

2.3. Communication technique
Today, with the rapid development of information technology, wireless communication technology is gradually integrated into the development of animal husbandry. Network technology and non-connection the combination of touch video technology can realize close range wireless communication Letter, so the livestock management system in the equipment can be at short distance off-site connection with the wireless network [9]. Zigbee technology is generally at a low-level cost, small equipment to achieve wireless networking.

2.4. Image recognizing technique
Japanese researchers have studied the cow image recognition system, Binary data is used as input according to the image of individual differences of cows input information, use artificial neural network algorithm to process the data, really shows the accurate identification of individual cows. The management system is based on images recognition technology to obtain information about individual cows, instead of traditional milk management method of cattle electronic marking.

2.5. Data sensing technology
Foreign scholars on the changes in the pH value of bovine gastric juice into action condition monitoring (period of 10 s), through the small cattle back wear data logger collects data, transfers out and downloads using PDA device the data in the recorder are the physiology of metabolism in cattle. The study provides an effective method.

3. Conclusion
With the progress and development of information technology in China, animal husbandry letter the degree of reduction has been improved, which has greatly improved the management of livestock production accuracy. The use of information technology in livestock production can be realized. Now the real-time monitoring of animal breeding, livestock production efficiency benefit assessment and
image processing technology can be used to realize animals body identification, quality, and safety of livestock products. Network technology the technique can realize the safety management of the whole industrial chain of animal products production and processing manage and supervise effectively. The wide application of these modern information technologies for promoting the healthy and sustainable development of animal husbandry industry in China has the important sense.

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