Using the Software to Registers of Health Problems and Management in Health Care Herds of Cattle

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Abstract

The registers of the use of veterinary medicines are obliged breeder and veterinarians by Decree 344/2008 Coll. law 378/2007 Coll. In the Czech Republic there are still farms where the registers of used medicaments and performed veterinary care are done by hand in notebooks or in paper form. As a result of the multiple data overwriting thus leads to introducing additional errors and the process information processing is considerably extended. Software for healthcare registers of animals using the same technology as the system of registration of animals Skotsoft. The introduction of the new system would facilitate the whole zootechnical registers and accelerate the entire data processing. In the event, that a customer used the registers of animals and healthcare registers, there is mutually exchanged information between systems. It is not necessary, for example, to enter basic information about the animal (identification number, date of birth, gender, etc.) into each system separately. The advantage of both systems is the same graphical interface and control.

Keywords: software, healthcare registers, zootechnical registers, evidence of medication

1. Introduction

Registers of drugs and treatment are breeders in the Czech Republic obliged to keep under Act no. 378/2007 Coll., on pharmaceuticals and related Decree no. 344/2008 Coll., on the use, prescription and dispensing of medicinal products in veterinary care. Breeders are obliged to keep registers only if they are issued drugs according to § 77 par. 1 point. c), point 8 of the Act no. 378/2007 Coll., on pharmaceuticals, i.e. buying drugs from a distributor or pharmacy prescription, or the approval of a veterinarian (eAGRI, 2016). In each farm are the veterinary surgery with subsequent registers, this is the examination of animals or other veterinary procedures such as surgery mallow, blood tests, difficult births performed by a veterinarian or administration of drugs under the supervision of a veterinarian. All the drugs are written in the book about the use of medicines which is given the name of the product, batch, date of application, type and category of animals, the use of reason, diagnosis, the amount of medicine withdrawal period, and more.

Software for medical registers is dealt with package system modules as Skotsoft. Skotsoft system was created within the NAZV KUS QJ-1210144. It is a comprehensive system of registration of bovines with outlets for livestock management, central register of animals, milk production registers, and economic outcomes. The entire information system is built as a application, so that requires no installation or setup on the customer's computer. Storing, processing and data backup is secured on a secure server. The package modules medical registers can also be operated separately. The user can fully use medical registers without detailed registers of the animals.

In the event that the client used registers of animals, and medical registers are between the two packages modules formed connecting webs,

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by which are bidirectionally exchanged information. Because it is not necessary to enter some data separately such as the animal's identification number, birth date, etc. In the system are all consumed drugs or treatments carried ascribed to the individual animals and stored in a database, including diagnosis, date and amount of the preparation. The data are also used to survey about drug consumption, the treated animals and thanks to them and can perform a selection of animals. Every 1 month is a list of all the medicines sent to veterinarian. If the customer uses both registers, it brings many benefits. For example, in both systems the user logs in with one username and password, another advantage is the same type of graphical user interface and the same control of both applications or automatic exchange of information between the two registers. Software is designed so that it casts a book about the use of medicines and veterinary procedures and registers storage drugs. In the future, is also considering a more elaborate some procedures, such as foot care, or treatment classify and control of reproductive and protocols. The health registers was in 2014 tested outside of production environments. In 2015, it was deployed to the test in real. Further testing and expansion will take place throughout the year 2016. During testing will be continuously corrected deficiencies found and the software will be adjusted based on observations from practice. After testing the system of medical registers will be ready for production setting (Annual report, 2016).

The project aims NAZV KUS QJ-1210144 is to create a module that would simplify the work of both farm workers and veterinarians in connection with entering data used drugs and veterinary products.

2. Materials and methods

Module evidence of drugs and treatment has been tested in the agricultural cooperative Krásna Hora nad Vltavou Inc. Agricultural cooperative breeding 1,446 pieces of dairy cows. The annual milk yield is 8.724 l. The system was tested in breeding in 2015. The program was registered the following information: Mastitis (total number of mastitis, number of treated teats, total number intramammary treatment, and repeated treatment - the number of cows) and foot care (the number of treated hooves total, dermatitis digitalis, Rusterholz´s ulcer, and swelling).

3. Results and discussion

Table 1 shows the treatment of mastitis. The table shows that the total number of mastitis decreased during testing of the system registration of medicines and healing by 40%. Treated teat total was reduced from 60 to 37 (38 %). Significantly reduced the number of mastitis treated cows intramammary, their number decreased by almost half (44%). The situation was similar in cows treated repeatedly, which decreased number of treated by 58%. Of scan results is obvious that after the introduction of registration of medicines and treatment decreased the number of times mainly treated cows, but also the total number of mastitis in breeding.

From Table 2 it is evident that after the introduction of drugs and treatment registers reduce the total number of treated hoof and by almost 70%. Rusterholz´s ulcer incidence was reduced by almost 80% and the incidence of edema by 97%. Even in this case we can say that the use of the system for registration of pharmaceuticals and treatment helped to reduce the frequency of hoof diseases as well as in the incidence of mastitis.

Table 1. Treating of mastitis

	Testing start	**When testing is complete**
Total number of mastitis	85	51
Total number of treated teats	60	37
Number intramammary treated cows	85	47
Repeated treatment - the number of cows	12	5

Table 2. Treatment of hooves

	Testing start	When testing is complete
Total number of treated hooves	201	73
Dermatitis digitalis	10	0
Rusterholz´s ulcer	158	32
Edema	34	1

4. Conclusions

Most of the livestock has undergone in recent years a major transformation. This is mainly due to the development of modern technology, both in crop production and livestock. With increasing animal performance, it is necessary to improve the quality and management of the company. The module allows for customers to register individual treatment drugs, including batch number, expiration date, withdrawal periods, medicine prices etc.

In the treatment customer can define individual diagnoses, treatment plan and system of animals. The program then notifies the user of an identification chip, what actions would, in the day have made. It is because of this possibility to reduce the incidence of both mastitis and hoof diseases. Another equally interesting part is the economic evaluation of the consumption and use of drugs in individual cows.

Acknowledgements

This article was written during realization of the projects NAZV QJ1210144 and NAZV QJ1530058.

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