

UDC 619

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MODEL FARM IS A VECTOR OF VETERINARY WELLBEING

Abstract

Implementation of model farms equipped with modern livestock equipment, new generation automated technology, intelligent technological processes management system will allow to make a breakthrough in livestock.

Model farms with implemented elements of intellectual system management of technological processes will allow to raise production efficiency and ensure veterinary wellbeing. Veterinary support and model farm management are provided through organizational and economic as well as special business units.

By that the role of a human being comes down to control and production complex management and correction of management decisions.

Keywords: *model farm, veterinary and sanitary, special activities.*

Throughout human history agriculture remained as the most conservative economic industry. Low marginality, high risks, acute dependence on prices fluctuations in feed, fuel, finished products discourage private investments.

Livestock is important agricultural industry. Since this industry of agro-industrial complex is labor demanding, above 50% of all agricultural employees work in livestock. It is this part that accounts for the largest cost.

However, getting the main products required for human being life, i.e. meat, milk and other products, is not possible without livestock.

In recent years in many countries with developed livestock the strategy of livestock development is drastically changing. «Analog» period in agriculture is coming to its end, digital era and mass automation of business processes is starting. Republic of Kazakhstan is not exception, where by initiative and support of the government, model farms organization projects in meat and dairy farming are being implemented.

Model farm under direct coordination and participation of scientists of NPJSC «Zhangir Khan West Kazakhstan Agrarian-Technical University» is working in Kostanay region on the base of a private farm (individual entrepreneur) «Amanbekov». The work is carried out as part of the project No. BR06349534 «Implementation of new high performance technology with creation of a model cattle farm».

Research objective is creation of a model meat farm with intellectual management system aiming to improve productivity and cattle veterinary wellbeing and production profitability.

Materials and methods. Research was carried out by studying and analyzing work experience in ensuring veterinary wellbeing in model farm «Amanbekov» and comparison with traditional cattle farms.

Results and its discussion. Ensuring veterinary wellbeing is an important component in activity of any livestock farm, i.e. prevention of various pathologies in animals. The complex program of antiepidemiological measures, which ensures protection of livestock against emergence and spread of various pathologies, was introduced on the base of the model farm «Amanbekov» with active involvement of the farm head and specialists. The program includes the following units:

1. Organizational and economic activities:

1. Livestock farm fence, which excludes the entry of vehicles, people and animals;
1. Provision of isolated grazing in cultivated pastures, excluding contacts with extraneous animals from adjacent localities and other households by installing electric fences (Figure 1).



Figure 1 - Pasture with electric fence

- strict recording of the whole stock by means of electronic ear tags identification, implementation of automated feed production management system, herd reproduction and veterinarian services;
- equipment of veterinary and sanitary checkpoint, veterinary station with separation and modern multifunctional machine clamp allowing for various veterinary manipulations regardless of season; slaughterhouse; availability of veterinary drags and disinfectants (Figure 2).



Figure 2 - Separator with multifunctional clamp inside of veterinary station

- provision of all farm employees and specialists with work clothes and shoes to exclude the contact of farm animals with other other animals through owners of private farms;
 - organization of conditions for veterinarians to conduct mass and individual manipulations for animals pasture and stall keeping.
2. Veterinary and sanitary activities:
 - arrangement of disinfection barriers and disinfection mats for transport vehicles as well as for the farms employees and visitors at entrance/exit to/from the farm territory and livestock facilities;
 - sanitation and disinfection of livestock and walking yards (Figure 3);



Figure 3 - Walking yards and livestock premises ready for winter stall maintenance

- arrangement of quarantine premises for newly arrived animals;

- stockpiling of disinfectants for sanitation in case of conduction of forced disinfection.
- 3. Special veterinarian activities
- diagnostic tests for tuberculoses;
- diagnostic tests for brucellosis (breeding stock - twice a year in spring and autumn; young animals as of 12 month of age in spring and autumn);
- anthrax vaccination (once a year as of 3 months of age, September; live strain vaccine 55 ВНИИВВ and M against anthrax animals);
- nodulaire dermatitis vaccine «Lumpivac» once in spring);
- emcar vaccination - animals as of 4 months of age twice a year (October and April);
- cattle vaccination against trichophytosis as of 3 months of age;
- In order to prevent and eliminate helminteasis conduct the complex of veterinary and sanitary activities when slaughtering animals as well as deworming of service dogs on a quarterly basis.

Activities algorithm of the model farm «Amanbekov» in this format is paying off today and can be used as experience spreading platform by organizing and conducting seminars, continuing education courses, publications in specialized publications and mass media (Figure 4).



Figure 4 - Theoretical and practical parts of seminar

REFERENCES

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ТҮЙІН

Қазіргі заманғы технологияларды енгізу, мал ұстауға, автоматтандырылған техниканың жаңа ұрпақтың зияткерлік басқару жүйесі технологиялық процестерді жүзеге асыруға мүмкіндік береді серпін мал шаруашылығында құру арқылы үлгілі фермалар. Модельдік фермасының элементтерін ендіру зияткерлік басқару жүйесі бар технологиялық процестерді мүмкіндік береді өндірістің тиімділігін айтарлықтай жоғарылатуға қамтамасыз ету және ветеринарлық амандығы. Ветеринарлық қамтамасыз ету және жұмысын басқару модельді фермаларында ұйымдастыру-шаруашылық және арнайы ветеринарлық шаралар арқылы жүзеге асырылады.

РЕЗЮМЕ

Внедрение современных технологий содержания скота, автоматизированной техники нового поколения, интеллектуальной системы управления технологическими процессами позволит осуществить прорыв в животноводстве путем создания модельных ферм. Модельные фермы с внедрением элементов интеллектуальной системой управления технологическими процессами позволят значительно повысить эффективность производства и обеспечить ветеринарное благополучие. Ветеринарное обеспечение и управление работой модельной фермы осуществляется через ряд организационно-хозяйственных и специальных блоков. При этом роль человека сводится к общему контролю и управлению работой производственного комплекса и корректировки управленческих решений.