



Folk veterinary medicine of the Odesa region in the second half of the twentieth century

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Abstract. Studying the historical aspect of the development of veterinary medicine in the southern regions of Ukraine at the end of the twentieth century. The purpose of this work was to study the use of folk methods of treatment of productive animals in the southern regions of Ukraine, in particular in the Odesa region, and to analyze their effectiveness from the point of view of traditional and modern veterinary medicine. The information was collected by interviewing animal owners who kept animals at that time, veterinary specialists who had a veterinary practice, and by searching for archival and literature sources in various scientific databases. As a result of the research, it was found that the vast majority of folk methods used in rural areas of Odesa Oblast in the late twentieth century were related to the treatment of the most common diseases of cattle, both adult and young, while the number of methods for other animal species was limited. The therapeutic effect of most of these methods was based on the therapeutic effect obtained from local medicinal plants, which formed their basis. The main areas of application of alternative therapies were to help animals with digestive dysfunction – dyspepsia in young animals and atony of the fore stomach, skin diseases, parasitic diseases and mastitis in cows. The analysis of the methods used to treat animals indicates a deep knowledge of the medicinal effects of the plants and substances used by animal owners. The effectiveness of the treatment methods described in this article is confirmed by their use in the professional practice of veterinary specialists. Thus, the conducted studies indicate a significant influence of folk veterinary medicine at the end of the last century on the treatment of productive animals from private households, which at that time made up the majority of livestock in Ukraine

Keywords: ethnoveterinary medicine; medicinal plants; alternative methods; phytotherapy; households

Introduction

Keeping and breeding of farm animals in private households requires a constant search for methods of treatment of various animal diseases and exchange of this information between owners. Given the lack of veterinary medicine specialists on pastures and in most rural areas, animal treatment was mainly carried out by service personnel and owners, and usually folk methods

and approaches were used for this purpose. Most of the methods developed were designed to treat productive animals such as cows, horses, oxen, and others. But among these animals, a special place was occupied by those species from which products were obtained for the whole family or for sale. Therefore, such animals were called “breadwinners” and were treated with special

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care, and in case of illness, all efforts were made to help them as soon as possible. A similar attitude towards animals is described in the research of T. Lehman (2016) conducted in the Lviv region, which indicates a special, careful attitude towards animals throughout Ukraine, regardless of territorial affiliation.

Traditional veterinary medicine has deep roots, which in the southern regions of Ukraine date back to the Scythians. Nomads, who depended on animals for their livelihoods, both as a source of food and a means of transport, already needed people who could help treat wounds, childbirth, or poisoning. At that time, this work was performed by animal owners and shepherds. Over time, the number of methods and their effectiveness increased, and the most successful combinations of medicines were passed down both between animal owners and between generations. This continued until the 70s of the last century.

The second half of the twentieth century in the history of veterinary medicine in Ukraine, according to the research of N. Romaniuk *et al.* (2023), was characterized by the rapid development of veterinary science, an increase in the number of educational institutions and faculties that trained specialists, and the introduction of advanced methods in animal treatment. In addition to the civil service, graduates of veterinary faculties were mostly sent to work at so-called collective and state farms, where the level of veterinary care for animals was carried out at a high professional level with the use of pharmacological agents and drugs. A similar situation is also indicated by the studies of G. Mattalia *et al.* (2021a), who analysed ethnoveterinary approaches to animal treatment in the neighbouring territories of Romania and Ukraine. They analysed the use of 108 plant species belonging to 45 families for medicinal purposes. At the same time, the number of registered applications of traditional veterinary methods was higher among the population in Romania, while among the Ukrainian population, their number was slightly decreasing every year. In addition, in the work of G. Mattalia *et al.* (2021b), the authors indicate that the vast majority of traditional veterinary practices were related to the treatment of 10 species of domestic animals, and cattle were the most frequently mentioned treatment object in all the study areas in both northern and southern Eastern Europe. The decline in the development of folk veterinary medicine in Ukraine was the result of the integration of standard Soviet elements of animal husbandry with the development of zootechnical and veterinary science, when almost every village had a veterinary specialist. But despite these approaches to developing the scientific basis of animal husbandry in collective agricultural enterprises and private households, the foundations of folk veterinary medicine have been preserved and passed down from generation to generation. Traditionally, folk veterinary medicine in Ukraine and neighbouring countries is characterized by the use of various medicinal herbs.

Thus, in the work of N. Papp *et al.* (2022), the authors documented 180 preparations for the treatment of 45 skin diseases using 112 plants used in certain regions of Transylvania. R. Gruszecki *et al.* (2022) indicate the widespread use of various parts of cabbage in folk medicinal procedures in Poland. Preparations made from leaves, stems, seeds, sauerkraut and its juice were used to treat many diseases of the digestive tract, skin, burns, frostbite, to relieve pain, fight parasites, and other infectious diseases. Among other biologically active substances, the work by V. Mogilyovskyy *et al.* (2024) focuses on the use of clay in the treatment of gastrointestinal diseases in young animals and in the treatment of animal poisoning by pesticides and mycotoxins.

The traditions of Ukrainian folk veterinary medicine were transferred by emigrants to new places of residence. According to S. Burei *et al.* (2022), it took place in the Ukrainian community of Palmital, Paraná, Brazil. The majority of respondents collected information on local plants used for ethnoveterinary practices, mainly for the treatment of cattle and goats, mastitis and parasitic diseases. This behaviour is not observed in other European immigrant communities in Brazil, indicating that Ukrainian culture helps to accumulate knowledge about veterinary medicinal plants in other areas of its residence. Similar traditions of personal farming have also been preserved among representatives of the Ukrainian diaspora in Canada, as indicated by M. Mucz (2022).

Therefore, the purpose of this work was to study the experience of treating productive animals with folk methods in the southern regions of Ukraine and, in particular, in the Odesa region with an analysis of their effectiveness in terms of traditional and modern veterinary medicine.

Materials and Methods

Information on the use of therapeutic approaches in folk veterinary medicine was collected by searching for written references with various recipes for medicines in scientific and periodical literature, archival records, collections of medicinal recipes, databases of various electronic resources and other sources, oral traditions about the use of folk methods in the treatment of animals from their owners and using other historical sources on folk veterinary medicine, while observing the historical aspect of the study. The methodological approaches described in the work of V.I. Abakumova (2014) were used in the study.

The main area of information was a literature search for references to folk methods of treating farm and domestic animals used in the second half of the twentieth century in Ukraine. Firstly, such research was carried out using information available in scientific databases, including: Web of Science, Scopus, Google Academy, databases of the Vernadsky National Library of Ukraine, the National Scientific Agricultural Library of the National Academy of Agrarian Sciences of Ukraine and other electronic resources.



Information on previously used methods and current approaches to animal treatment was collected on the basis of anonymity from residents of 29 settlements, including 9 villages each in Bilhorod-Dnistrovskiy and Odesa districts and 11 villages in Rozdilnyanskyi district of Odesa oblast, in order to expand the geography of the study. In the course of the survey, 28 animal owners who kept animals in the 80s and 90s of the last century and one veterinarian who had practical experience in treating animals with various methods and used folk methods in his practice were identified. All information about the use of various physiotherapeutic procedures, the use of medicinal plants and medicines made from them at home, and the use of other means for therapeutic purposes that are not pharmacological agents was recorded. The information obtained and the results of the survey were compared with the work of other researchers who conducted similar studies in other districts of Odesa and neighbouring regions.

During the analysis, the information on the identified treatments was systematized by dividing it into the following categories: treatments for gastrointestinal diseases, skin diseases, parasitic diseases, and treatments for other body systems. When information about the same treatment method was obtained from different sources, or from several animal owners living in different localities, such methods or techniques were considered to be widely used and were given preference in the review. If information was received about methods that had no logical basis or lacked common sense, they were immediately rejected and not taken into account in further work.

Almost all treatment methods and recipes used to treat animals in folk veterinary medicine were attempted to be justified in terms of modern physiology and pharmacology, which made it possible to understand the feasibility of using these methods in medical practice and the logic of their use. Firstly, preference was given to those therapeutic approaches that were typical for Odesa and neighbouring regions, and only then to other approaches used in Ukraine.

Results

The study collected approaches that were mainly used by the population and livestock owners in villages in a number of districts of Odesa Oblast and other regions of Ukraine in 1980-2000 to treat their animals. For the most part, only those methods that involved the use of plants or substances with medicinal properties were selected for analysis, and information about approaches that had a mystical basis or cases of inadequate use of substances or waste products was ignored. Therefore, the focus was on the use of medicinal plants and various compounds or substances with medicinal effects commonly used in rural communities. All the methods obtained were subsequently analysed in an attempt to identify the therapeutic mechanisms that were entrenched in the

methods of folk veterinary medicine in the Odesa region in the late twentieth century. All the methods that were identified through a survey of the population in rural areas were distributed as follows.

Medicinal products used in diseases of the gastrointestinal tract of animals

The most common type of pathology among animals, both in individual households and in collective farms, was and is digestive disorders in newborn calves. For their treatment in different settlements of the Odesa region, mainly decoctions made from barley and oats were used (Ihor K., Kamianka village, Rozdilnyanskyi district, Victoria S., Doslidne village, Odesa district) and flax seeds (Viktor S., Zelene village, Bilhorod-Dnistrovskiy district, Nina K., Novokonstantinovka village, Rozdilnyanskyi district, Serhii M., Tykhe village, Odesa district). For this purpose, 2-3 doses of milk were replaced with such decoctions in an equivalent volume. The therapeutic effect of such decoctions is associated with their anti-inflammatory and enveloping effect, as indicated by S. Raungrumme *et al.* (2022). According to animal owners, such treatments were effective only in the initial stages of the disease. At later stages of the disease, or in case of the development of diarrhoea caused by pathogenic microorganisms, medicinal teas (decoctions) prepared from the following medicinal plants were used: St. John's wort (Victor M., Kamianka village, Rozdilnyanskyi district), Canadian witch hazel (also known as "zatnyhuzno") (Serhii K., Blahodatne village, Odesa district), chamomile (Serhii K., Blahodatne village, Odesa district, Mariia V., Stepove village, Rozdilnyanskyi district), oak bark (Serhii M., Tykhe village, Odesa district).

The effect of these preparations was mainly associated with the significant antimicrobial and antiviral effect of the substances in their composition, as indicated by such researchers as H. Rao *et al.* (2023), S. Bun & E. Ollivier (2020) and M. El Joumaa & J.M. Borjac (2022). In addition, most plants used to treat digestive disorders in calves also contain astringents that can reduce glandular secretion and slow intestinal motility. An equally effective approach was the use of electrolyte solutions, among which salt was most often used to prepare saline solutions (the most common proportion is 5 teaspoons per 1 litre of water). This solution was the basic solution, which was used to replace both milk and watering throughout the treatment period. In some cases, onion juice (Svitlana V., Kamianka village, Rozdilne district) or vegetable oil (Maria V., Stepove village, Rozdilne district) could be added to the basic solution. Stanislav K., Petrivka village, Odesa district, a veterinary assistant by training, used a sugar-salt solution (2 tablespoons of sugar and 1 teaspoon of salt per 1 litre of water) to reduce the signs of dehydration. Similar methods of using electrolytes in medical practice among animal owners in other regions of Ukraine were described in a paper on a professional website (How to cure..., 2023).

In isolated cases, the use of activated charcoal (Taras V., Vasylivka village, Odesa district) and egg white (Tetiana M., Zelene village, Bilhorod-Dnistrovskiy district) was reported for therapeutic purposes. Such approaches have not found a rational explanation for their effect on the body of sick calves, so they may not have been widely used by animal owners in Odesa and other regions of Ukraine. The next disease that livestock owners in the southern region of Ukraine were actively trying to cure on their own at that time was atony of the fore stomach in animals. This disease was mainly characterized by a lack of appetite in adult cows and a decrease in their milk production. The disease developed gradually and, unlike tympanic fever, did not require emergency treatment. For the treatment of this pathological condition, firstly, medicinal herbs with a bitter taste were used – wormwood (Viktor M., Kamianka village, Rozdilnyanskiy district, Anatolii Y., Dolynivka village, Bilhorod-Dnistrovskiy district), yarrow (Oksana M., Zhuravske village, Rozdilnyanskiy district) and alembic rhizome (Natalka A., Levandivka village, Odesa district). Mostly herbal preparations were used in the form of decoctions or tinctures. However, one of the most effective methods of eliminating scar atony was the use of an alcoholic tincture of hellebore. Most animal owners and veterinarians who were engaged in medical practice at that time mentioned the use of this drug. It is worth noting that the availability of this drug and its rapid therapeutic effect contributed to the widespread use of this remedy among animal owners.

Medicines used for skin diseases

Most of the skin diseases that were treated with folk remedies were mechanical damage to the skin – wounds, ulcers, neoplasms on certain skin areas and cases of calf shingles. A significant number of respondents from different districts of Odesa Oblast (Maria S., Nove village, Bilhorod-Dnistrovskiy district, Natalia S., Oleksiivka village, Bilhorod-Dnistrovskiy district, Victoria S., Doslidne village, Odesa district, and a number of others) treated mechanical injuries in the form of fresh wounds by applying bile obtained from slaughtering farm animals. It was stored in a closed container in the refrigerator, and it was believed that the longer the bile was stored, the better its healing effect. The widespread use of bile in the treatment of skin diseases indicates its high efficiency, which contributed not only to their rapid healing but also prevented further infection by microorganisms. A search for information that could scientifically confirm the rationality of using this substance for medical procedures revealed that bile has been used since ancient times. O.O. Stremoukhov (2016) points out that this product of the body's vital activity, due to the content of a large number of bile acids, has an antimicrobial effect and a significant regenerative effect caused by the antioxidant effect of the bilirubin present. It should be noted that bile has also been used by veterinary specialists in their professional work. According to Stanislav K.,

a veterinary assistant from Petrivka, Odesa district, it was used not only to treat cuts in animals, but also to treat cuts and wounds in humans.

Tinctures of calendula (Ihor K., Kamianka village, Rozdilne district, Natalka A., Levandivka village, Odesa district) and crushed aloe and Kalanchoe leaves (Ivan T., Kalantaivka village, Odesa district, Hryhorii M., Slobidka village, Rozdilne district) were also used to treat wounds that had become infected. These medicinal plants contain a significant amount of flavonoids, tannins, organic acids and enzymes, which, according to L. Nasciminto *et al.* (2023), they have antiseptic and anti-inflammatory properties, and contribute to the rapid cleansing of wounds from necrotic tissues, accelerating their regeneration. A similar property of calendula is also indicated by A. Boscarato *et al.* (2020).

Other skin diseases that were tried to be treated with folk remedies included some types of neoplasms, such as papillomas or warts. Such lesions were treated only if they were localized on the udder skin. The prevalence of this type of pathology was not significant among the cow population in Odesa oblast, as only three animal owners shared methods of wart control. Two of the respondents, namely Taras V., Vasylivka village, Odesa district, and Anatolii Ch., Pasichne village, Bilhorod-Dnistrovskiy district, reported mechanical ligation of the vessels that feed the wart with a regular thread. They put it on the papilloma stem and waited until it fell off by itself. This method was used only if the tumours were located singly and had a clearly defined pedicle. Only the method reported by Yulia T. from Kamianka village, Rozdilnyanskiy district, although it involved the use of a pharmacological drug, namely salicylic paste, could be used in most cases of papillomatosis. The use of this drug, according to S. Yoon *et al.* (2021), is based on the keratolytic and irritant effects of salicylates.

At the end of the twentieth century, a fungal skin disease such as trichophytosis (tinea) was widespread among young cattle. In individual households, the main remedy used with a therapeutic effect was celandine juice, which has a strong fungicidal effect. But, given the short growing season of this plant, in other periods the main treatment was used motor oil (recycling). It was not possible to find out in the literature by what mechanism this agent helped to destroy the fungus on the skin of animals, but according to the feedback from animal owners who used it, it was quite effective.

Folk methods of combating parasitic diseases

Among the folk methods for the treatment of helminthiasis, animal owners in Odesa oblast used: wormwood decoction (Anatolii Y., Dolynivka village, Bilhorod-Dnistrovskiy district, Hryhorii M., Stepove village, Odesa district), tansy (Liubov R., Shyroke village, Bilhorod-Dnistrovskiy district) and walnut (Oleksii S., Mykhailivka village, Rozdilnyanskiy district). Other, less common methods of treating parasitic pathology in animals with alternative



medicines included the use of a water extract from garlic clove gruel by Tetiana N., from Orikhivka village, Bilhorod-Dnistrovskiy district. However, due to the significant amount of plant material, this method was used only for the treatment of ascaridosis in calves.

In addition to treating parasitic diseases of the gastrointestinal tract with folk remedies, animal owners believe that unconventional approaches have shown good results in the treatment of ectoparasites. In addition to cattle, several methods were used for other species of animals, including cats and dogs. The largest number of approaches were identified for the control of fleas and lice. Among the most common were treating the skin and fur of dogs and cats with lemon peel infusion (Hryhorii M., Stepove village, Odesa district), bathing or soaking the fur with vinegar solution (Mariia N., Vasylivka village, Odesa district), and tincture of oregano (Nataliia S, Oleksiivka village, Bilhorod-Dnistrovskiy district), eucalyptus essential oil (Ihor K., Kamianka village, Rozdilnyanskyi district), and a number of other approaches related to the use of wormwood and comfrey as bedding in places where animals rest, which, in combination with animal treatment, allowed getting rid of these insects. In addition, most of these methods were also used as repellents against gadflies and horseflies when grazing cows.

According to most livestock owners, methods of controlling skin mites, also known as scabies, and their larvae were less effective than fleas and lice. Most of the medicines used to control other insects were ineffective (veterinary paramedic Stanislav K., Petrivka village, Odesa district). One of the most effective approaches was to treat the affected areas of the skin of sick animals with chlorophos solution. However, although this remedy was widely used for the treatment of cows and other species of animals in individual households, it cannot be attributed to traditional veterinary medicine, as the drug used is a product of chemical synthesis.

Medicines used to treat other organs and systems of the body

Among the diseases of dairy cows kept in the private sector, inflammation of the mammary gland – mastitis – was the most common. According to the respondents, the disease occurred in most cows, regardless of the area and season of the year. Treatment of mastitis with folk methods was carried out only at the initial stage of the disease, in the first 1-2 days, and was aimed at reducing udder swelling and reducing inflammation symptoms. The most common methods of such treatment approaches were applying a cabbage leaf to the affected part of the gland (Hryhorii M., Slobidka village, Rozdilnyanskyi district, Nataliia S, Oleksiivka village, Bilhorod-Dnistrovskiy district) or applying a mixture of clay and vinegar to clean udder skin (Ivan T., Kalantaivka village, Odesa district and Kateryna A., Vynohradne village, Bilhorod-Dnistrovskiy district). The effect of these remedies was complex and related, on the one hand, to the

rapid evaporation of vinegar, and thus contributed to a decrease in local body temperature, which is one of the symptoms of an inflammatory reaction. Clay, on the other hand, can reduce tissue swelling and has analgesic effects (Mansouri *et al.*, 2024). Cabbage leaves have a similar effect, which is confirmed in studies conducted by R. Lauche *et al.* (2016). Other remedies used during this period included beetroot juice (Oksana M., Zhuravske village, Rozdilnyanskyi district) and onion juice diluted with water in a 1:1 ratio (Hanna M., Stoyanove village, Rozdilnyanskyi district). However, it was not possible to verify the effectiveness of such remedies in the literature.

If the above methods failed to stop the development of the disease, most animal owners turned to veterinarians for treatment with antibiotics, which at that time were considered the best method for eliminating mastitis. However, a number of livestock farmers, despite the possible loss of part of the milk production of their animals, which often happens with mastitis, continued to use folk remedies until the cows recovered completely. For this purpose, they used alcohol tinctures or vodka compresses with honey (Ivan N., Zhuravske village, Rozdilnyanskyi district) or vinegar (Kateryna A., Vynohradne village, Bilhorod-Dnistrovskiy district). Such approaches were used at later stages of the disease, with pronounced changes in milk. The logic behind the use of such alcohol preparations was to increase blood supply to the affected quarter of the udder, which contributed to increased phagocytosis and resorption of inflammatory products.

As for other species of animals, another effective and widely used method in folk veterinary medicine was the use of a mixture of clay and vinegar, as in the case of mastitis in cows, to relieve a number of symptoms of erysipelas in pigs (Kateryna A., Vynohradne village, Bilhorod-Dnistrovskiy district). This mixture was applied to the skin of sick animals to reduce the temperature, which rose to 41-42°C. Of course, it is not possible to cure piglets with this remedy alone, as it requires a course of antibiotic therapy and the use of specific immunological drugs, but it can improve the general condition of a sick animal. This method is quite widespread in folk medicine in other regions of Ukraine and the world, as pointed out in the work by A. Damato *et al.* (2022).

Usually, veterinary specialists were sceptical about folk methods, as they had in their arsenal quite effective antimicrobial, antiparasitic, diagnostic, immunological and prophylactic drugs, thanks to which they provided highly effective care. However, despite this large number of medicines, veterinarians, and paramedics used several traditional approaches in their professional practice. According to veterinary assistant Stanislav K. from Petrivka village, Odesa district, such methods include blowing powdered sugar into the eyes of animals with the initial stage of lens opacification (cataracts), or the use of medicinal teas in the treatment of diarrhoea in calves, which is quite effective. Thus, the vast majority of folk veterinary treatments in the second half of the

twentieth century were related to the treatment of cattle using medicinal plants, as these animals were the ones that yielded the maximum output and, accordingly, the income from their sale.

Discussion

In the second half of the twentieth century, the supply of veterinary specialists to agricultural enterprises was one of the best ever (Romaniuk *et al.*, 2023). During this period, the number of veterinary faculties at higher education institutions that trained veterinarians increased, and the already wide base of secondary specialized institutions that trained veterinary assistants grew. In his work, V.Y. Prysiazhniuk (2023) points out that such professional training allowed each agricultural enterprise to have a whole staff of veterinary specialists, including a chief doctor, a reproduction specialist, and several veterinary assistants, the number of which was determined by the number of animals. However, despite this, the supply of veterinary medicines was insufficient and animals were partially treated with folk remedies. This mainly concerned non-communicable diseases of adult cows and young animals, which were treated with various medicinal herbs and other substances that had nothing to do with pharmacology (Boieva *et al.*, 2021). Therefore, along with traditional veterinary practice, folk veterinary medicine developed in parallel at this time, as indicated by V.I. Dovhan (2011). This medical practice was mainly based on the use of medicinal plants (phytotherapy).

Starting in the 1990s, the number of animals in Ukraine and its individual regions began to decline sharply. Thus, according to the State Statistics Service of Ukraine (2022), from 1990 to 2000, the number of cattle alone decreased by more than 14.5 million heads, which was 57.5%. During this period, some farms abandoned livestock production, which led to a reduction in the number of veterinary specialists in rural areas. An increase in the number of private farms with growing livestock numbers, against the background of a decline in the number of livestock in the public sector, does not contribute to the growth of specialists in villages (Pavlovska, 2024). Therefore, the influence of traditional methods in medical practice is increasing. The next stage in the development of veterinary medicine in Ukraine, and in particular in Odesa region, was the growth in the number of private veterinary pharmacies that sold pharmacological products without prescriptions. This, on the one hand, according to T.V. Kucherenko (2020), could have influenced the introduction of more effective approaches to animal treatment, but due to the lack of knowledge of the effect of most pharmacological drugs and the inability to calculate the effective dose of the drug for animals, and sometimes the sale of counterfeit drugs through a network of such veterinary pharmacies, it allowed not only preserving but also expanding traditional approaches to the treatment of mainly farm animals.

As a result of the research, it was found that the largest part of the collected folk methods concerned the treatment of gastrointestinal disorders with the development of diarrhoea. According to various reports, the proportion of this pathology in modern conditions ranges from 38.5% (Du *et al.*, 2023) to almost 57% (Schinwald *et al.*, 2022) of all newborn animals. The information obtained on the use of different approaches in folk veterinary medicine for the treatment of diarrhoeal syndrome in calves indicates not only the differentiation of methods depending on the stage and intensity of dyspepsia in animals, but also the selection of drugs for complex action to obtain the best effect. Traditional veterinary medicine also used methods that were inherent in traditional approaches to treatment. For example, an important component of antidiarrheal therapy in all scientific approaches to treatment is the use of rehydration solutions, as indicated by P. Constable *et al.* (2021) and G. Bregadioli *et al.* (2023), and among folk methods, these approaches are also quite common in the process of providing medical care. Despite the widespread use of new, highly effective drugs for the diagnosis and treatment of calf diarrhoea of various aetiologies, the use of folk remedies is still observed in a number of villages in Odesa Oblast today. Moreover, they are used both by veterinary specialists, as indicated by the information of the Main Department of the State Service of Ukraine for Food Safety and Consumer Protection in Kherson region, and by animal owners who refuse to use antibiotics in the treatment of their own animals (The use of..., 2019). This allows concluding that they are highly effective.

Diseases of the gastrointestinal tract in modern cattle have changed somewhat due to targeted breeding and changes in housing and feeding conditions. Therefore, it is quite a challenge to verify the effectiveness of most of the collected methods of folk veterinary medicine in Odesa region. However, the effectiveness of folk approaches in stopping the scar could be based on the specific effect of the plants used in the methods, which irritated the receptors of the foregut mucosa and thus provoked the resumption of ruminant activity in cows (Pramod *et al.*, 2024). Equally important is the effect of plant bitters in increasing saliva secretion and thereby restoring the functioning of the digestive system. One of the most dangerous diseases from the point of view of the population was parasitic diseases. They could both cause a decrease in growth and productivity and lead to the death of animals. Of the respondents, the majority (87%) tried to take preventive measures to rid their animals of parasitic objects in one way or another. A number of livestock owners did so in a haphazard manner by periodically adding specific medicinal plants or substances to feed. The majority of respondents consulted veterinarians from the farms in the area where their households were located about the parasitic situation in the region. Given that animals from both farms and private households mostly used the same pastures

for grazing, this was justified. Therefore, in the first case, treatment was carried out at the expense of folk veterinary medicine, and in the other case, using pharmacological products that were used to treat livestock in the farm's herd. The vast majority of medicinal plants used for the treatment of parasitic diseases were confirmed in the literature analysis in the work by F. Khamesipour *et al.* (2021). The anthelmintic effect of these plants is associated with a significant amount of biologically active substances that were part of their composition, which could reduce the mobility of parasitic organisms and inhibit their reproduction. The use of folk methods in the treatment of scabies has been less studied. A search for information on non-traditional approaches to treating this disease revealed only one paper by V.Ya. Prysyazhnyuk & B.V. Gutyj (2021) describing therapeutic approaches in the western regions of Ukraine. This work indicated that in the treatment of scabies, animals were given plants such as aloe, rhubarb and bitter radish inside, and externally, the entire animal was treated with warm ointments, which included sulphur or tar. And left for several days. However, the article did not indicate what therapeutic effect was obtained as a result.

Thus, folk veterinary medicine in the late twentieth century was quite widespread in the Odesa region, and mainly involved approaches to helping cattle, while the number of methods for other animals was limited. The vast majority of folk methods that were widespread in the southern regions of Ukraine were based on the use of local medicinal plants and available substances that were not classified as pharmaceuticals.

■ Conclusions

Summarizing the results obtained by collecting information from animal owners and a literature review on the use of traditional veterinary methods in the treatment of animals in the late twentieth century in the South of Ukraine, several conclusions can be drawn.

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Most of the methods used for therapeutic purposes concerned the main diseases of cattle and to a lesser extent other animal species. This was due to a more careful attitude towards cows, as they provided most of the food and had a significant income. The folk methods used to treat animals in the late twentieth century mainly concerned diseases that had a subacute and chronic course of development, while for diseases with an acute course or that could cause the death of animals, veterinary specialists were consulted. Most folk veterinary methods were based on the action of medicinal plants native to the area and used for therapeutic purposes. In some cases, other substances with a therapeutic effect that had nothing to do with pharmaceuticals were also used, such as vinegar, clay, and others. The most widespread methods in the Odesa region were those that had a high effective therapeutic effect on sick animals, which was observed in the studies. This is confirmed by the information on the use of certain methods of traditional veterinary medicine in the professional practice of specialists, and the absence of identified methods that would not have a logical therapeutic basis.

Given the limited area in which information on ethnoveterinary practices was collected, which were typical for private and individual farms in Odesa region, this study cannot be extrapolated to the entire territory of southern Ukraine. Therefore, in order to more objectively determine the state and impact of traditional veterinary medicine on animal treatment, it is necessary to expand the study to Mykolaiv and Kherson regions, which will be the subject of further research.

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■ Conflict of Interest

None.

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Народна ветеринарія Одещини другої половини ХХ століття

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Анотація. Вивчаючи історичний аспект розвитку ветеринарії в південних районах України в кінці ХХ століття метою цієї роботи стало вивчення народних підходів та їх ефективності в лікуванні тварин громадського сектору в Одеській області в 80-90 роках минулого століття. Метою даної роботи було дослідження використання народних методів лікування продуктивних тварин у південних регіонах України, зокрема в Одеській області, та аналіз їх ефективності з погляду традиційної та сучасної ветеринарної медицини. Збір інформації проводили шляхом опитування власників тварин, які на той час утримували тварин, спеціалістів ветеринарної медицини, які мали ветеринарну практику та шляхом пошуку архівних та літературних джерел в різних наукових базах. В результаті проведених досліджень вдалося виявити, що переважна кількість народних методів, які використовувалися в сільській місцевості Одеської області в кінці ХХ століття, стосувалося лікування найбільш розповсюджених захворювань великої рогатої худоби, як дорослої, так і молодняка, тоді як до інших видів тварин кількість методів була обмеженою. Лікувальна дія більшості цих способів ґрунтувалася на терапевтичному ефекті отриманому від місцевих лікарських рослин, які й склали їх основу. Основними напрямками застосування нетрадиційних методів лікування були надання допомоги тваринам при дисфункції органів травлення – диспепсії молодняка та атонії передшлунків, захворюваннях шкіри, паразитарних хворобах та маститах у корів. Проведений аналіз методів, які застосовували для лікування тварин, вказують на глибокі знання лікарської дії тих рослин та речовин, які використовувалися серед власників тварин. Ефективність зазначених в статті методів лікування підтверджується їх використанням в професійній практиці ветеринарних фахівців. Таким чином, проведені дослідження вказують на значний вплив народної ветеринарії в кінці минулого століття на лікування продуктивних тварин з особистих господарств населення, які в той час становили більшість серед тваринництва України

Ключові слова: етноветеринарія; лікарські рослини; нетрадиційні методи; фітотерапія; господарства населення