Volume 3, Issue 11, November - 2025
ISSN (E): 2938-3781

Web of Agriculture: Journal of Agriculture and Biological Sciences
webofjournals.com/index.php/8

PREVALENCE OF MONIEZIOSIS IN SHEEP

Safarov Kh. A.
Senior Researcher at the Scientific Research Institute of Veterinary,
PhD in Veterinary Sciences

Akramov K. Sh.
Senior Researcher at the Scientific Research Institute of Veterinary,
PhD in Veterinary Sciences

Abstract
This article presents an analysis of data on the prevalence of monieziosis in sheep across various regions and the types of the disease observed.

Keywords: Sheep, helminth, helminthosis, Moniezia, Moniezia benedeni, Moniezia expansa.

Introduction

Helminthoses parasitize various vital organs of livestock, including sheep, negatively affecting the growth and productivity of young lambs and adult sheep, and causing significant economic losses. One of these helminthoses is monieziosis of lambs and sheep, which leads to severe growth retardation, developmental delay, and mortality in lambs, thereby inflicting considerable economic damage to sheep farming.

Monieziosis is a disease caused by cestodes that are widespread mainly among young cattle and small ruminants aged from 1 to 8 months. Adult Moniezia species are among the largest parasitic helminths. Their length can reach up to 10 meters. *Moniezia expansa* can reach up to 1.5 cm in width, while *Moniezia benedeni* may reach up to 2.5 cm. The head (scolex) is approximately 0.8 cm in size and has four suckers.

Moniezia occurs in various regions around the world. In enzootic areas, more than 50% of livestock may be affected. Lambs are particularly susceptible, which can lead to diarrhea and weight loss. However, many studies have not provided precise data on the economic impact of Moniezia on sheep productivity.

According to the authors, the disease affects approximately 59% of lambs under one year of age, 31% of sheep aged one to two years, and about 15% of adult sheep [5].

Disease Prevalence. According to research conducted by Russian scientists, in lambs under one year of age in desert zones, infection with *Moniezia expansa* is first detected in May (19%), reaches a peak in July (57%), then decreases and is almost absent in January (3%). In the same group of lambs, *Moniezia benedeni* infection is first observed in July (3%) and reaches its maximum in March of the following year (32%). In adult sheep, as a rule, infection with *M. benedeni* predominates [5].

Volume 3, Issue 11, November - 2025
ISSN (E): 2938-3781

Web of Agriculture: Journal of Agriculture and Biological Sciences
webofjournals.com/index.php/8

Over a 13-year period, long-term extensive observations revealed infection of small ruminants with *Moniezia expansa* at a rate of 0.63 ± 0.05%. The highest infection rate was recorded in 2010 (0.95%), and the lowest in 2001 (0.03%). During this 13-year period, the prevalence exceeded enzootic thresholds in 2000, 2009, 2010, and 2011. Long-term monitoring indicates an increasing trend in monieziosis infection among small ruminants ($y = 0.0274x + 0.3786$; $R^2 = 0.2312$) [7].

Observations conducted in the Republic of Bashkortostan also showed that *Moniezia expansa* frequently affects lambs born in the current year. *Moniezia benedeni* is widespread everywhere, most often recorded in cattle, adult sheep, and ewes. In the southern regions of the area, monieziosis has been documented as an enzootic epidemic in young lambs during spring and summer [4].

In the territory of the Republic of Belarus, sheep monieziosis caused by *Moniezia expansa* (Rudolphi, 1810) and *Moniezia benedeni* (Moniez, 1879) has been identified. Sheep monieziosis is widespread in Belarus, and according to studies, the prevalence in regional farm households is as follows: Vitebsk region – 2.70–32.00%, Minsk – 15.00–18.51%, Grodno – 6.36%, Brest – 8.18–17.85%. Infection peaks in summer, and the disease is recorded in sheep and ewes of all ages and sexes throughout the year. Monieziosis occurs as a monoinvasion in 11.68% of cases and in 87.32% of cases in association with other helminth or protozoan infections [10].

According to research conducted by Kazakh scientists, the highest prevalence of monieziosis in young lambs was recorded during the summer months, with an infection rate (IE) reaching up to 39.7%. In winter, the prevalence of the invasion (IE) was 8.9%, and in spring, the infection rate (IE) among young lambs increased again to 11.8% [8].

According to research by Azerbaijani scientists, sheep are mainly infected with monieziosis in spring (21.7%) and at the end of autumn (23.0%), with an invasion intensity of 2–8 specimens. In lambs, the highest infection rate was observed in spring (28.5%), with an invasion intensity of 2–10 specimens. Infection of young lambs with monieziosis occurs in lowland areas during May–June, in foothill areas during June–September, and in mountainous areas in August [6]. According to studies by Tajik scientists, in sheep farms of Vakhsh, Dangara, and Timurmolin districts, significant differences were observed in the seasonal dynamics of sheep monieziosis caused by *M. expansa* and *M. benedeni*, as well as in age-related susceptibility to different types of monieziosis, particularly in adult sheep. Lambs become infected with monieziosis (*M. expansa*) in spring and summer, with infections beginning in May and peaking in July. By autumn, the infection rate in lambs decreases, and in winter, *M. expansa* is rarely found. *M. benedeni* is more prevalent in adult sheep. Among young animals, infection with this species occurs in July–August, reaching its highest prevalence in March of the following year. *M. benedeni* survives and parasitizes in young animals for 10–12 months. At the beginning of spring, the eggs of the parasite are excreted into the environment with feces. In adult sheep infected with *M. benedeni*, the infection rate reaches 18–23% in April, decreases to 16–17% by June, and drops to 11.5% in August. From October onwards, the level of invasion in animals increases again, reaching its maximum in November–December [9].

According to research conducted in Uzbekistan, sheep monieziosis (*M. expansa* and *M. benedeni*) prevalence is 1.7% in Tashkent region, 15.6% in Samarkand region, 8.6% in Navoi region, 17.1% in Bukhara region, and 23.5% in Surkhandarya region. Among different types of farms, the highest prevalence of sheep monieziosis was recorded in breeding farms located in desert and semi-desert areas (25.3%), an average prevalence in peasant farms (14.2%), and the lowest prevalence in household subsidiary farms [11].

According to our 2021 research, among 115 sheep and lambs examined in Samarkand region, 6.08% were infected with monieziosis; in Kashkadarya region, 5.7% of 227 examined animals were infected; and in the Republic of Karakalpakstan, 8.2% of 218 examined sheep and lambs were infected [1,2,3].

Conclusions.

1. The conducted research indicates the necessity of planned prophylactic deworming of sheep.
2. Considering the widespread prevalence of this helminthiasis and its significant impact on the growth and development of young lambs, it is necessary to estimate the economic losses caused by the disease.

References

1. Safarov X.A., Djabbarov Sh.A. Qoraqalpog‘iston Respublikasida chorva mollari gelmintozlarining tarqalishi. AGRO ILM, №6. 2021, 70-71 bet.
2. Safarov X.A. Samarqand va Qashqadaryo viloyatlari bo‘yicha chorva mollari gelmintozlarining epizootologik holati. Veterinariya meditsinasi. №10. 2021, 25-27 bet.
3. Safarov X.A., Djabbarov Sh.A. Chorva mollarining asosiy gelmintozlari va ularning tarqalish darajasi. Veterinariya meditsinasi. №12. 2021, 12-14 bet.
4. Доценко О.С., Муллаярова И.Р. МОНИЕЗИОЗ ОВЕЦ В РЕСПУБЛИКЕ БАШКОРТОСТАН. Международный студенческий научный вестник. – 2016. – № 4 (часть 3) – С. 323-324
5. Захаркина Н.И., Пилипчук А.А. ИСПОЛЬЗОВАНИЕ ПРЕМИКСА «КУПРОВИТАМ» ДЛЯ ПРОФИЛАКТИКИ И ЛЕЧЕНИЯ МОНИЕЗИОЗА У ЯГНЯТ. Фундаментальные исследования. – 2014. – № 8 (часть 3) – С. 637-640
6. Исмаилов Г.Д., Фаталиев Г.Г., Азизова А.А. Распространение мониезиозов у жвачных животных Азербайджана, зональное распределение и динамика чиленности орибатидных клещей-промежуточных хозяев Moniezia expansa, M. Benedeni (Cestoda, anoplocephalata). Юг России: экология, развитие. №3, 2011. – С. 69-75
7. Романова Е.М., Индирякова Т.А., Игнаткин Д.С., Баева Т.Г. Экологический мониторинг биобезопастности хозяственно развитых территории (коллективная монография). Ульяновск 2015. – С. 84-85
8. Толыбаева А.Е., Кармалиев Р.С. ИНВАЗИРОВАННОСТЬ ОВЕЦ МОНИЕЗИЯМИ В РАЗНЫЕ СЕЗОНЫ ГОДА В ЗАПАДНО-КАЗАХСТАНСКОЙ ОБЛАСТИ. Конф. Теория и практика борьбы с паразитарными болезнями, 2013. – С. 382-383
9. Шодмонов И.Ш. Особенности эпизоотического процесса при мониезиозе и смешанных гельминтозах у овец в Республике Таджикистан. Российский паразитологический журнал. Том 42, №4. 2017. – С. 368-371

Web of Agriculture: Journal of Agriculture and Biological Sciences
webofjournals.com/index.php/8

Volume 3, Issue 11, November - 2025
ISSN (E): 2938-3781

10. Krishchenko V.G. Epizootological peculiarities of moniesiosis of sheep in farms of the Republic of Belarus with different technologies of production. Current Problems of Intensive Development of Animal Husbandry: collection of scientific works. Volume 15. 2014. - P. 252-257
11. Kurbanov Sh.Kh. Biology, Ecology, Morphology And Epizootological Characteristics Of Sheep Moniesis. The American Journal of Veterinary Sciences and Wildlife Discovery. June 30, 2021. – P. 8-14
12. Xurshid S., Shuxrat D. QO‘YLARNING GELMINTOZLARI VA ULARNING RESPUBLIKAMIZ HUDUDIDA TARQALISHI //Yangi O ‘zbekiston ustozlari. – 2024. – Т. 2. – №. 2. – С. 42-45.
13. Safarov X. A., Sh A. K. QASHQADARYO VA SURXONDARYO VILOYATLARIDA QO ‘YLARIDA GELMINTOZLARNING TARQALISHI //Yangi O ‘zbekiston ustozlari. – 2024. – Т. 2. – №. 29. – С. 258-260.
14. Сафаров Х., Джаббаров Ш. Экономический ущерб от гельминтов мелкого и крупного рогатого скота //Перспективы развития ветеринарной науки и её роль в обеспечении пищевой безопасности. – 2022. – Т. 1. – №. 2. – С. 170-173.
15. Oripov A. O., Jabbarov S. A., Safarov X. A. MAIN HELMINTHIASES OF FARM ANIMALS AND THEIR SPREADING RATE //The American Journal of Veterinary Sciences and Wildlife Discovery. – 2022. – Т. 4. – №. 01. – С. 1-8.
16. Акрамов К., Сафаров Х. Комплексные меры по лечению и профилактике куриных нематодозов //in Library. – 2024. – Т. 2. – №. 2. – С. 90-94.

Web of Agriculture: Journal of Agriculture and Biological Sciences
webofjournals.com/index.php/8