

Article

## Epizootology of Brazot's Disease in Sheep

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**Citation:** Aliyar H. I., Sarsengali uli N. T., and Khaitovich S. I. Epizootology of Brazot's Disease in Sheep. American Journal of Biology and Natural Sciences 2026, 3(5), 103-105.

Received: 19<sup>th</sup> Feb 2026

Revised: 10<sup>th</sup> Mar 2026

Accepted: 20<sup>th</sup> Apr 2026

Published: 16<sup>th</sup> May 2026



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**Abstract:** This article examines the epizootic status of Bradzot disease in sheep, conducted in a number of sheep farms. Several factors affecting the development of Bradzot disease, clinical signs, pathological and anatomical changes, bacteriological examination and laboratory studies on experimental animals are described. was taken into account.

**Keywords:** Anaerobic Bacteria, Bradzot, Sheep, Pathogen, Clinical Signs, Clostridium Sep., Discomfort, Bloody Foam, Gas, Rest, Edema, Prevention

### Introduction

One of the fastest growing sectors of our republic is animal husbandry, and fully satisfying the population's demand for environmentally friendly and safe food products, meat, milk, eggs and other similar products, is one of the current problems of today's state policy.[1] However, in the development of karakul breeding, which is one of the most important areas of animal husbandry, and in the conquest of foreign markets through the industrial production of sheep and their products, karakul skins of various colors, as well as meat and its products, some infectious diseases, including clostridial diseases, are becoming a serious obstacle.[2][3] Therefore, in order to prevent and combat clostridial disease in sheep, it is important to completely eliminate the disease in karakul farms by creating resource-saving, import-substituting and export-oriented medicines. In our country, in sheep farms, farmers and private households of citizens, timely and correct diagnosis of Bradzot disease, which is considered one of the most dangerous infectious diseases for sheep, remains one of the current problems of veterinary specialists.[4] Until now, in many literatures on the pathogenesis of this disease, scientific experts have come to the conclusion that Bradzot disease of sheep develops under the influence of a number of external factors. This disease is widespread in all developed sheep-breeding countries of the world, regardless of geographical region and climate. The fact that Bradzot disease occurs in some cases among sheep leads to a serious problem. Reducing economic losses from the disease plays an important role in the economic development of our country.[5]

## Materials and Methods

To study the epizootic status of sheep brazot disease, first of all, business trips were organized to a number of sheep farms in the Shorchi, Oltinsoy and Kumkurgan districts of Surkhandarya region, and more than 1,800 sheep belonging to the population were clinically examined. In collaboration with veterinary specialists working in the field, the epizootic status and clinical signs of brazot disease were studied in natural conditions. Animals suspected of brazot disease were isolated and placed under constant observation, and measures to combat and prevent the disease were studied.[6][7]

## Results

Clinical observations were conducted on anaerobic diseases of sheep in some districts of Surkhandarya region in unhealthy areas where the disease is prevalent. It was found that Bradzot primarily affects sedentary, fatter sheep, and older sheep are more susceptible to the disease when kept in pastures, while young lambs are more susceptible when kept in pens or in sheepfolds. It was found that the disease occurs in all seasons of the year, but is more common in seasons with lower temperatures (late autumn, early spring). [8] Therefore, it was found during the research that factors such as rapidly changing climatic conditions of nature, the occurrence of various helminths (fasciolas) in biogeocenoses more often than in other regions, grazing sheep in snow, frost and dew, excessive cooling or overheating of the sheep's body, and a lack of protein and mineral substances in the sheep's body contribute to the development of bradzot disease.[9] Usually, under such conditions, the natural resistance of the sheep's body to pathogens decreases, and as a result of mechanical injury of the helminths in the mucous membranes of the stomach and duodenum, anaerobic bacteria multiply. Clostridia bacilli produce strong toxins, which poison the body and cause the animals to die very quickly. [10] Under natural conditions, sheep are infected when grazing on pasture, mainly by eating feed contaminated with the pathogen, soil mixed with grass, or drinking water contaminated with the pathogen, as well as through hay prepared from areas that are unhealthy for bradzot disease. In some sheep, bloody diarrhea and gas accumulation in the abdomen and signs of rest were observed. Swelling was detected between the jaws, neck and chest. Bradzot usually progresses very quickly in sheep and lambs. A clinically healthy animal in the evening will die in the morning. When driven to pasture, a sick sheep that appears healthy from the outside may immediately lie down, shiver, gnash its teeth and die within a few minutes. When it is laid down, the body swells very quickly and begins to decompose. A bloody and foamy mucous fluid is released from its natural openings. Seventeen samples of parenchymal organs were taken from sheep that died of the disease and the samples were examined bacteriologically.[11][12][13]

As a result of the tests, the causative agent of Bradzot disease of sheep, *Cl.septicum*, was isolated from the samples. To determine the pathogenicity of this isolated causative agent, guinea pigs from laboratory experimental animals were infected intramuscularly with 0.5 ml of a one-day culture grown on Kitt-Tarotsii nutrient medium. The infected guinea pigs died after 18-24 hours, showing clinical signs characteristic of Bradzot disease, and the causative agent isolated from the dead sheep was found to be pathogenic.[14][15]

## Conclusion

Thus, the course and clinical signs of sheep's brucellosis were studied in natural conditions in a number of sheep farms in the Shorchi, Altinsoy and Kumkurgan districts of Surkhandarya region, and it was found that this disease is common in these districts. Taking into account all pastures, places, and locations where the disease occurred, animals susceptible to brucellosis in these areas are vaccinated in early spring and autumn with a polyvalent vaccine against brucellosis, enterotoxemia, malignant edema and lamb dysentery (diarrhea) in sheep and goats.

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