



October 29, 2020

Alaska Department of Environmental Conservation
Attention: Shannon Miller
555 Cordova Street
Anchorage, AK 99501

Re: Title 18, Chapter 36 of the Alaska Administrative Code, Animal Health; Proposed Changes

To Whom it May Concern:

The American Sheep Industry Association appreciates the opportunity to provide our comment on the Alaska Department of Environmental Conservation (DEC) proposed regulations regarding sheep and goat testing for importation into Alaska, specifically in regard to the addition of a new section that proposes to add *Mycoplasma ovipneumoniae* (*M. ovipneumoniae*) testing requirements for sheep and goats prior to importation into the State of Alaska. Since 1865, ASI has been the national trade organization representing the interests of the over 100,000 sheep producers located throughout the country who produce America's lamb and wool. ASI is a federation of forty-five state sheep associations representing a diverse industry. Our organization works to promote science-based policies that address issues that may affect the greater U.S. sheep industry and the individual sheep producers whose interests we represent.

The Alaska Department of Environmental Conservation (DEC) has proposed changes to its regulations regarding sheep and goat testing for importation into Alaska by adding a new section dealing with *M. ovipneumoniae*. The proposed changes would require that all sheep and goats over 2 months of age be tested and found to be negative for *M. ovipneumoniae* within 60 days of importation. The American Sheep Industry stands opposed to this requirement for several reasons.

To begin with, *M. ovipneumoniae* is not a regulatory disease agent anywhere in the world. It is found at varying prevalence in domestic sheep and goats as well as in multiple wildlife species throughout the world (having been identified in Dall sheep, mountain goats, white tail deer, mule deer, caribou, moose and bighorn sheep, as well as Muskox¹, and Beira antelope²). Not enough is known about the relationship between *M. ovipneumoniae* in wildlife and *M. ovipneumoniae* in domestic sheep and goats to establish a regulatory framework for this opportunistic pathogen.

¹ Handeland K, Tengs T, Kokotovic B, Vikøren T, Ayling RD, et al. (2014) *Mycoplasma ovipneumoniae* - A Primary Cause of Severe Pneumonia Epizootics in the Norwegian Muskox (Ovibos moschatus) Population. PLoS ONE 9(9): e106116. doi:10.1371/journal.pone.0106116, and

Ytrehus, Bjørnar, et al. (Published Online May 12, 2015). Single Causative Factor for Severe Pneumonia Epizootics in Muskoxen? [Letter to the editor]. *EcoHealth* 12, 395–397, 2015 DOI: 10.1007/s10393-015-1033-4

² Gull, Jessica M., et al., "BLOOD VALUES OF CAPTIVE BEIRA ANTELOPE (*DORCATRAGUS MEGALOTIS*) PRIOR TO AND DURING AN OUTBREAK OF FIBRINOUS PLEUROPNEUMONIA SYNDROME (FPPS)," *Journal of Zoo and Wildlife Medicine* 45(4), 735-743, (1 December 2014). doi:http://dx.doi.org/10.1638/2013-0073.1 url: http://www.bioone.org/doi/full/10.1638/2013-0073.1 (last retrieved Oct. 28, 2020)



No Scientific Foundation to require testing for *M. ovipneumoniae*. There is no official, standardized, or validated regulatory diagnostic test for this pathogen.

M. ovipneumoniae testing protocols are known to be fraught with issues. Culture methods have low sensitivity, and it has been shown that infected domestic sheep and goats only intermittently shed this bacterium at a level that is detectable. This means a negative test may be meaningless, which in turn begs the question, how many tests would be enough? False positives can also be an issue and could be very costly to a sheep producer.

Laboratories nationwide use different test protocols for this pathogen and there is disagreement among labs and diagnosticians regarding the effectiveness of these different tests. The only commercially available serological test, which is available at only one state diagnostic laboratory, is not usable for testing the carrier status in an individual sheep as serologically positive animals may repeatedly test negative by nasal swab PCR testing. Furthermore, it does not work in goats.

Polymerase Chain Reaction, also known as PCR, is the recommended test for determination of *M. ovipneumoniae* infection status of individual animals. However, most exporting State laboratories do not offer a PCR test for *M. ovipneumoniae*. In fact, there are only two accredited state labs, Washington Animal Disease Diagnostic Laboratory (WADDL) and Kansas State Veterinary Diagnostic Laboratory (KSVDL) that commercially offer an *M. ovipneumoniae* PCR test.

Without standardized and validated test protocols for *M. ovipneumoniae*, producers are faced with a wide range of potentially meaningless test results that could nonetheless penalize them.

Scientific Data Contradicts Need for this Regulation

ASI does not find a convincing scientific basis for DEC's proposed regulatory changes. In reviewing the website of the DEC State Veterinarian and Animal Health, we found that there is currently no *M. ovipneumoniae* control program for domestic sheep and goats in Alaska, which is also the case throughout the rest of the U.S. Further exploration of the Alaska Fish and Game website revealed that the prevalence rate for *M. ovipneumoniae* in Alaska's domestic sheep and goat population is just under 4%, according to a recent multi-agency study conducted by the Alaska Office of the State Veterinarian and Alaska Department of Fish and Game. Further, we learned that other studies performed by Alaska Fish and Game have shown that *M. ovipneumoniae* is present in multiple wildlife species in Alaska, including Dall sheep, Mountain goats, caribou, and moose.

What surprised us the most, however, was to learn that these studies show that the *M. ovipneumoniae* genotyping (sometimes referred to as "strain typing") conducted on respiratory samples from Alaskan wildlife is **different from** any of the genotypes (or, "strain types") documented in Alaskan domestic sheep and goats. This provides **scientific evidence that there has not been transmission** of *M. ovipneumoniae* between domestic and wild species throughout the history of domestic livestock in Alaska **because the Alaskan wildlife genotypes are unique and different from Alaskan domestic sheep and goats.** Further, it could be said that these wildlife populations may actually have *M. ovipneumoniae* as a natural part of their microbiologic biome (endemic *M. ovipneumoniae*) as has been shown in other wildlife in other areas of the U.S. Therefore, testing domestic sheep and goats for importation into Alaska will do nothing to address the endemic *M. ovipneumoniae* already present in the wildlife.



The proposed regulations do not appear to be science-based and assume risks of pathogen transmission among domestic livestock and wildlife, which has not been proven, or even suggested by current science.

Based on the scientific evidence, risk assessments, and epidemiology, there is no indication that importation testing will have any significant impact on *M. ovipneumoniae* prevalence, distribution, or the risk of transmission between wild and domestic species, especially when this opportunistic pathogen is already present in the wildlife populations in Alaska and other states. On the DEC website, the answer given to the FAQ, "Why require *Mycoplasma ovipneumoniae* testing of sheep and goats older than 2 months of age?", states

"A. Testing at 2 months and older is based on recommendations from Washington Disease Diagnostic Laboratory at Washington State University. Lambs and kids typically remain uninfected [*sic*] with *Mycoplasma ovipneumoniae* for a considerable time after birth. Data shows this is typically about 2 months, although in some herds can be 6 months or longer."

There is no peer-reviewed published data to support either statement for goat kids. Research performed by the USDA-ARS-Animal Disease Research Unit indicates this information is not scientifically supported. The research performed by the USDA-ARS-ADRU has shown goat kids are significantly more likely to shed than are adult goats based on a 2016 pack goat surveillance study (n=571; 83 premises). In this study, only 8.06% were found to be positive for *M. ovipneumoniae*. Of that 8.6%, 90% were less than 1 year of age, 77% less than 6 months of age, and only a few 2-month-old or younger kids that were tested. The USDA-ARS-ADRU data has been publicly presented and all shared multiple times and all USDA-ARS-ADRU data from this study is available upon request. We raise this to show both the low prevalence of *M. ovipneumoniae* in goats and the inaccurate statement that that this policy appears to be based on.

Conclusion

ASI urges the State of Alaska not to adopt these proposed regulatory changes. The changes would have a significant impact on the sheep industry by requiring a costly and potentially logistically challenging testing protocol that is unlikely to be a good indicator of *M. ovipneumoniae* status for animals going into herds of unknown status. An abundance of scientific evidence, risk assessments, and epidemiology reveals that testing imported sheep or goats will have little, if any, impact on *M. ovipneumoniae* prevalence, distribution, or the risk of transmission between wild and domestic species in Alaska. Lastly, the lack of scientific basis for requiring import testing could be considered more of a barrier to trade than a disease mitigation tool. ASI does not support implementation of regulatory actions that will have such a costly and detrimental impact on sheep producers when there is no evidence to show it will have any sort of impact on animal health, domestic or wildlife.

Respiratory disease is a complex problem, typically associated with several different pathogens, environmental stressors, and other factors, so there is no one answer or simple solution. While *M. ovipneumoniae* has been found associated with respiratory illness in some wildlife, there is evidence other factors play a contributing role. ASI believes this attempt to address Alaska's *M. ovipneumoniae* concern with an import test on sheep and goats is not science-based and is misguided. At best, this action will be costly to the state and will not provide a practical solution to the State's concerns. At worst, the proposed action unfairly targets domestic sheep and goats by placing a regulatory burden on



producers without sound scientific support. The action undermines the State of Alaska's credibility and could be considered as a non-tariff trade barrier rather than a mitigation tool to preserve animal health.

We appreciate the opportunity to weigh in on these proposed changes. If you need clarification or further information, please do not hesitate to contact us.

Sincerely,

Peter Orwick
Executive Director