

## ***Mycoplasma ovipneumoniae*: Mitigating the risk of transmission in Yukon**

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**ABSTRACT:** In fall 2018, under the *Animal Health Act*, the Yukon Government announced a 5-year control order, which specifies fencing and testing requirements for farmers keeping domestic sheep or goats in Yukon. The order is intended to protect wild populations of thinhorn sheep and mountain goats from respiratory pathogens, specifically *Mycoplasma ovipneumoniae* (*M.ovi*), carried by domestic small ruminants. Prior to the order coming into effect on January 1, 2020 the Yukon Government provided compensation for farmers to either depopulate herds or attain compliance with the terms of the order. We report the success of the government fencing program, summarizing the containment status of sheep and goat farms. We also report results of testing three monthly nasal swabs for *M. ovi*, including prevalence of *M. ovi* at the individual and herd level. Animals testing positive were removed from the population, and a pilot treatment trial was completed in hopes of providing an alternative to removal. We will share the treatment trial outcome and report trends observed that relate test results with herd dynamics. Annual testing and containment inspections will be ongoing and permits, with conditions, will be required to acquire sheep and goats from outside Yukon. Actions taken under the control order have increased our understanding of the biology of *Mycoplasma ovipneumoniae* in domestic herds and we expect the results from repeat testing in future years to inform control measures.

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**KEY WORDS:** *Mycoplasma ovipneumoniae*, livestock-wildlife interface, regulatory medicine, thinhorn sheep

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