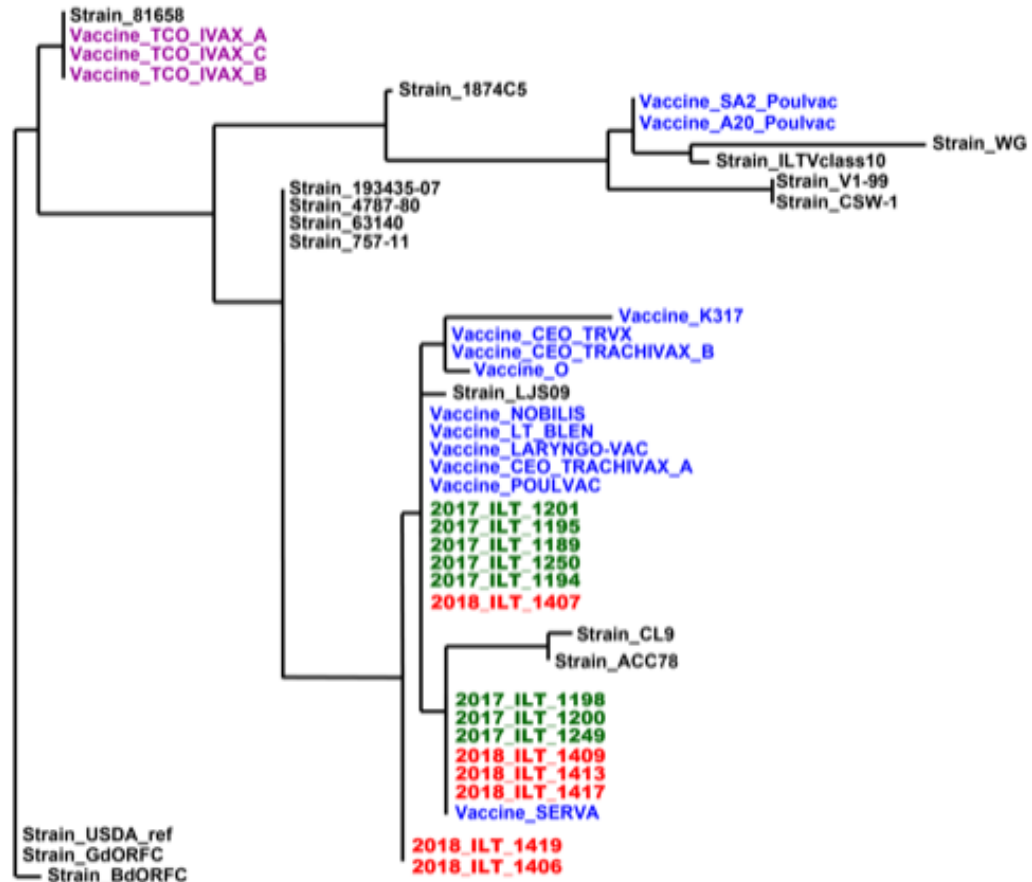


# Avian Diseases

## Control, Elimination, and Monitoring of Infectious Laryngotracheitis in a Multiage Commercial Layer Pullet Farm in Canada --Manuscript Draft--

<b>Manuscript Number:</b>	aviandiseases-D-20-00116R1
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<b>Abstract:</b>	<p>A multiage commercial layer pullet operation with a history of chicken embryo (CEO) modified live infectious laryngotracheitis (ILT) virus vaccination suffered severe ILT breaks in 2017. The initial sequencing revealed that the circulating virus was of vaccine origin. Changes to the timing and dosage of CEO ILT vaccine failed to control the outbreak. The clinical resolution of the outbreak occurred with the transition to a turkey herpesvirus vector vaccine given in hatchery followed by a tissue culture origin (TCO) vaccine given before the onset of symptoms on the farm. The circulating ILT viruses were monitored periodically using next generation sequencing. This site became free of ILT virus within one year after implementing the new vaccination program.</p>

Figure 1: Phylogenetic tree of the ILT virus from the farm at two time points after the end of the outbreak (Font color code: black for reference strains, blue and purple for vaccine strains, green for 2017 farm strains, red for 2018 farm strains).





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