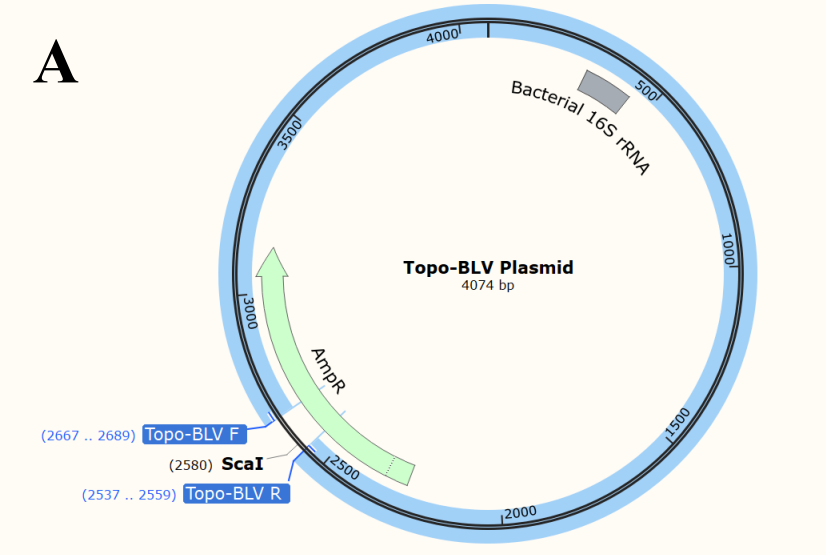
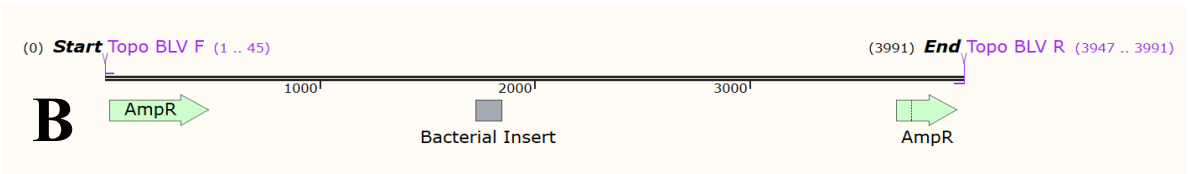
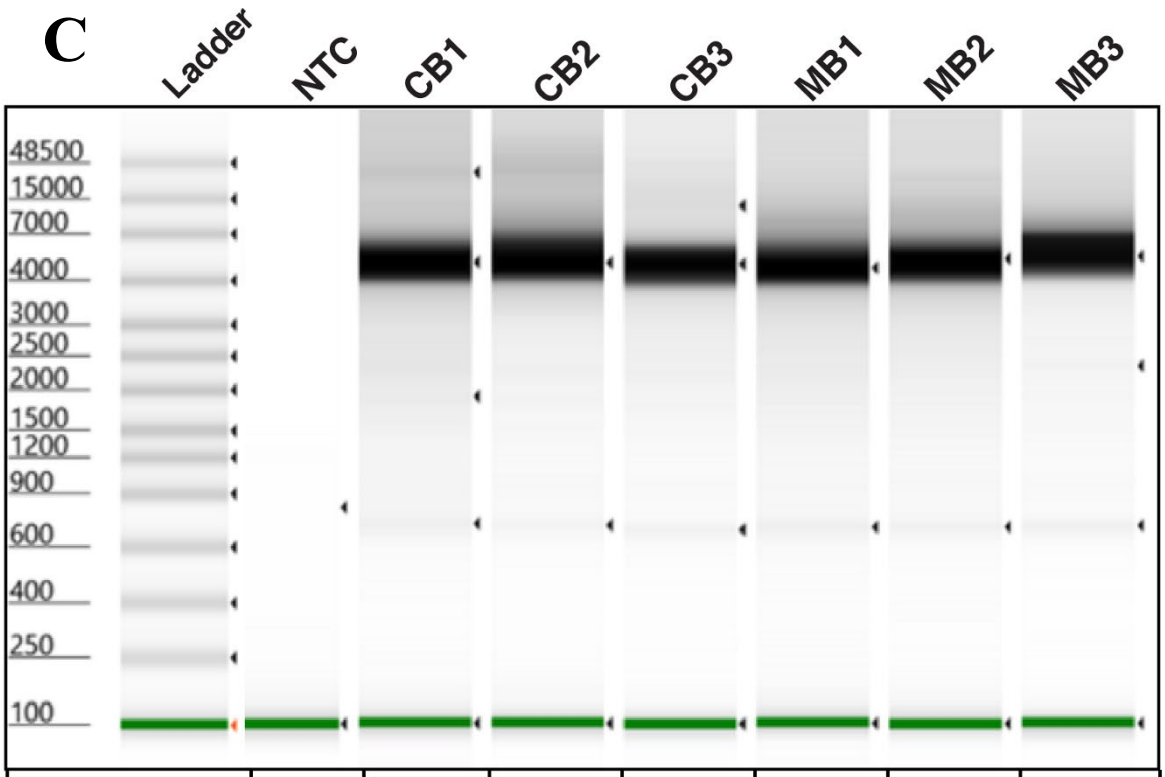
Supplementary Materials:







Number of Trimmed reads	18	14,559	10,266	6386	6089	8089	10,291
Coverage (X)	0.7	4950.8	2995.9	1838.2	1819.6	2759.4	3575.2

Figure S1: (A): Map of the TOPO ® vector used with Corynebacterium bovis and Mycoplasma bovis inserts. (**B)**: Primary amplicon of Table 1. used as a template for controls. Amplicon contains BLV seed sequence for use as a positive control in the BLV PCR. (**C)**: Electrophoretogram showing the amplification, size, and integrity of TOPO ® plasmids encoding the 16s rDNA gene and Thioredoxin gene from two different pathogens, respectively, used for Oxford Nanopore Sequencing. These amplicons were generated using the BLV_CS primers before sequencing. (CB: Corynebacterium bovis; MB- Mycoplasma bovis; NTC: Non-Template Control). NTC: Non-template Control.

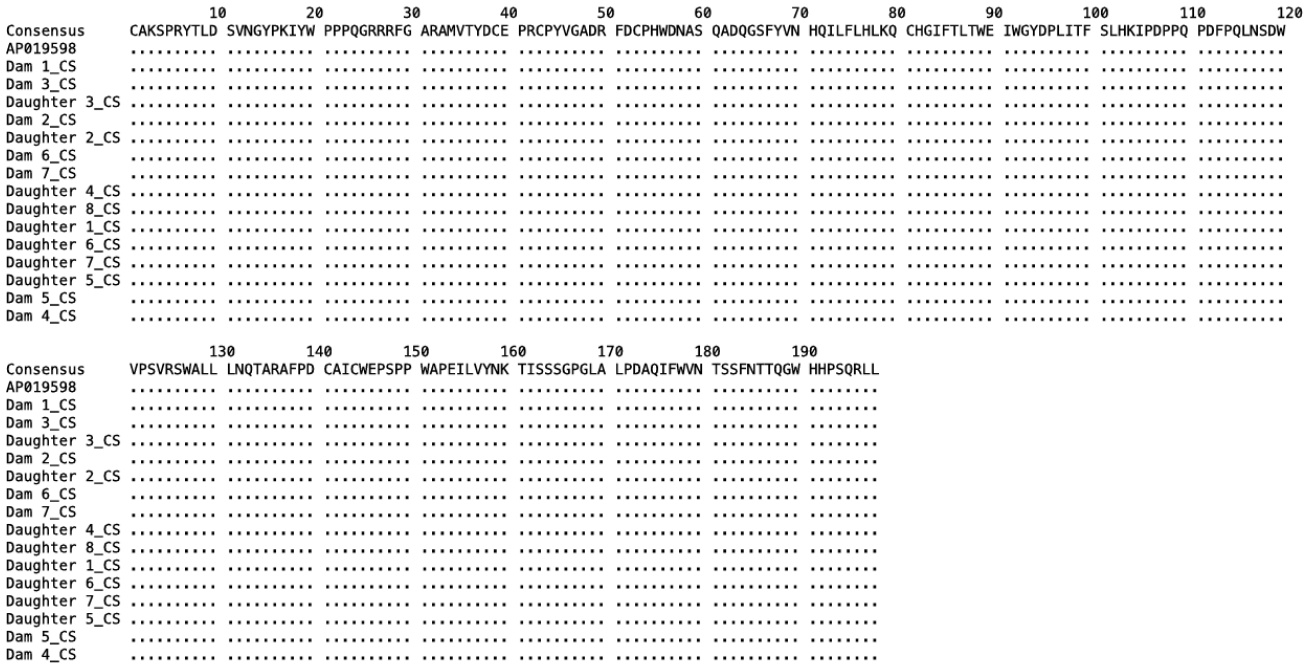


Figure S2. Amino acid alignment of the ENV protein showing 100% identity between the animals studied. Only sequences derived from BLV amplicons generated by CentralStar Laboratories were used for this analysis. AP019598 is the Genbank accession number of the reference genome used for comparison.