

Deadstock Disposal Vessel Assessment

Project Summary – March 2019

The Northern Ontario Farm Innovation Alliance is conducting a study to assess the viability of deadstock disposal in Northern Ontario with respect to the rate of decomposition and cost effectiveness. A deadstock disposal vessel is a scavenger-proof, leak-proof container installed under, partially or above ground, into which deadstock are placed to decompose.

Two deadstock disposal vessels were installed on a farmer's property in Thunder Bay. One vessel is a used manure tank and the other is a used underground fuel tank. Vessel location must meet the following restrictions:

30 m away from any Highway
15 m away from any lot line on which the vessel is located
100 m away from any flow path to the top of the bank of the nearest surface water or tile inlet
15 m away from any field drain
100 m away from any lot line of land with an industrial or parkland use
200 m away from any residential, commercial, community or institutional use of land
250 m away from Municipal well
50 m away from a drilled well with depth of at least 15m and watertight casing to depth of at least 6m
100 m away from any other wells
100 m away from livestock housing facility, outdoor confinement area and residential structure (neighbour's house) located on land not part of the land on which the disposal vessel is located
15 m away from another disposal vessel on the same parcel of land

A Go Pro and a FLIR handheld camera are being used to assess temperature, overall rate of decomposition and to keep track of the overall decomposition progress and process. Observations related to scavengers, access issues, water infiltration, vessel capacity and odour are being recorded. Every time an animal is added to the vessel, the date, animal type and weight are recorded to compare rate of addition to the vessel with rate of decomposition.



*Installation of the
deadstock disposal vessel*
Thunder Bay, ON



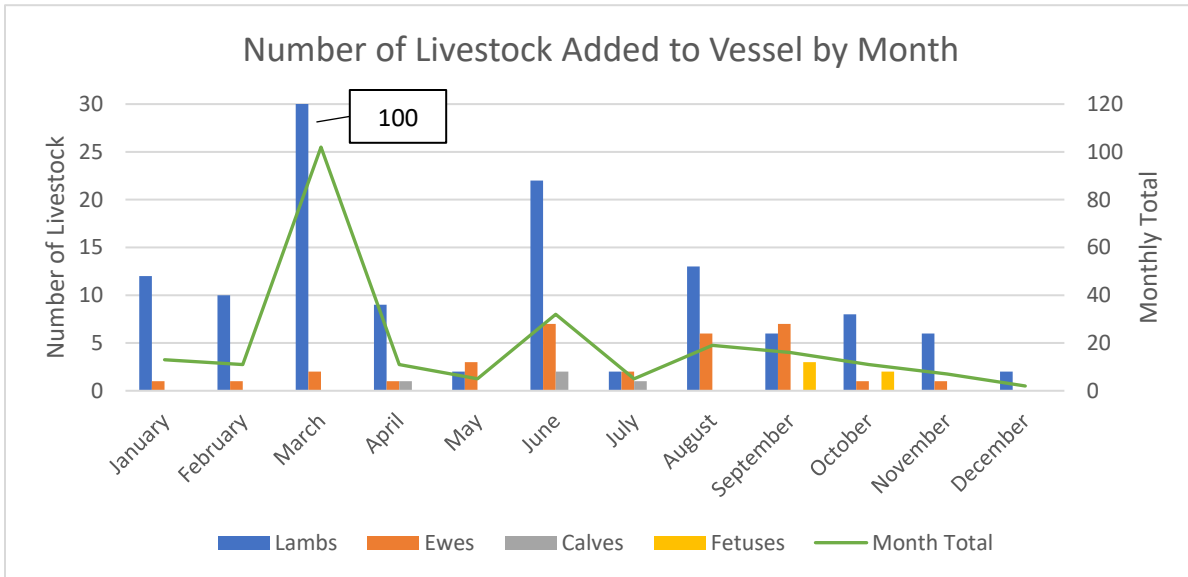


Fig. 1: Number of livestock added to the vessel, divided into species/age and compared to the monthly average.

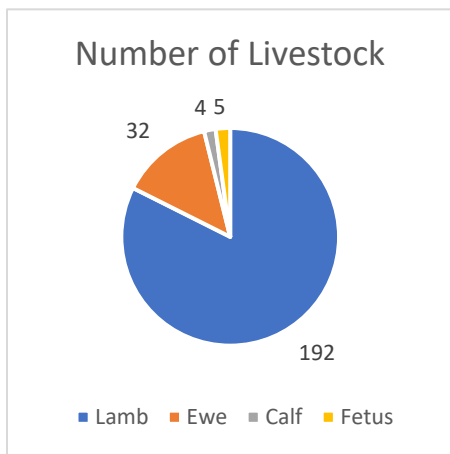


Fig. 2: Number of livestock added to the vessel, split into species type and age.



Fig. 3: Decomposition progress inside the disposal vessel.

One year of monitoring has been completed and data is being analyzed to determine effectiveness. A final report will be released at the end of the project, including an economic analysis of deadstock disposal vessels compared to alternative methods.

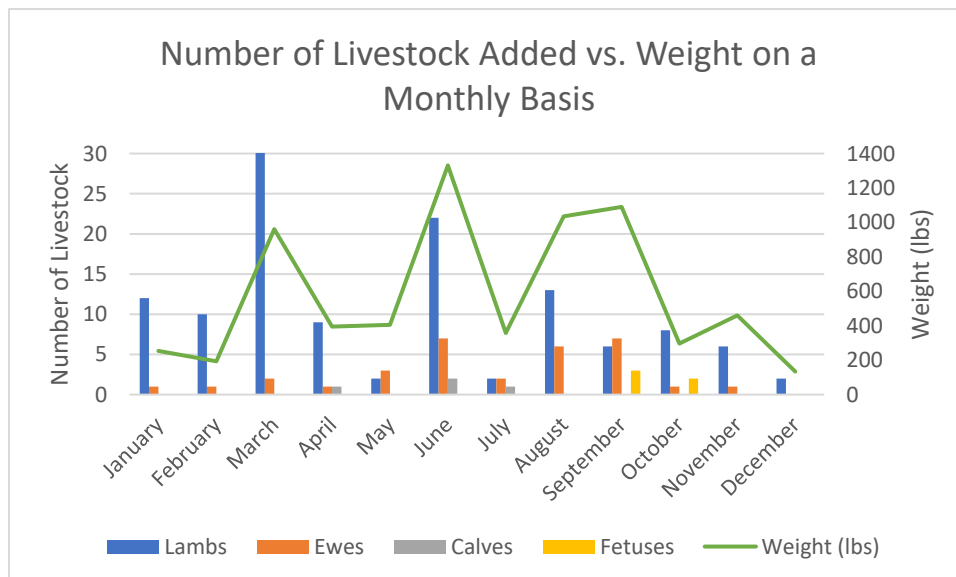


Fig. 2: Number of livestock added to the deadstock disposal vessel contrasted to total weight per month.