

Pathogen Analysis of NYSDOT Road-killed Deer Carcass Compost Facilities

Field Test of Sentinel Bags

10/12/05

CWMI – Bonhotal, Harrison, Schwarz
Vet School – Buckles

Road killed mature female deer delivered to Cornell Compost site by Tompkins Co Highway dept at 11 AM. Woodchips from NYS DOT delivered by Cornell Farm services. Deer was split. Spiral colon and blind sac removed (caecum). Bed of coarse chips, deer placed on top.



These are the portions containing highest concentrations of bacteria of interest. They weighed 775 g. The contents of the blind sac were mixed within the lining. The blind sac and spiral colon were sliced taking care to slice the spiral colon in a manner that would get a representative sample.

Approximately 60 g (combination of blind sac and spiral colon) was placed into each of 5 nylon mesh bags with long nylon strings. Bags were placed into the deer's body cavity. Deer was covered with wood chips taking care to keep strings in place and exposed.



The contents were very wet.



3 of the five bags were pulled out successfully and were packed and sent to WERL for analysis for fecal coliform/E. coli; salmonella; fecal strep/enterococci. 2 bags were left in to try pulling them out after a few weeks.

We learned that given how wet the material is, we need the finest mesh to make the bags. We learned, that if WERL needs 30 g sample and we expect about 50% reduction thru composting, that we can expect to get about 11 bags out of a deer (this will vary of course).



Thus when we set up the research piles, we will want approximately 6-7 deer to take contents from. We have requested several additional roadkill deer to be delivered at the time of pile building. We can also use these sections of the intestines from a few of the deer to be placed into the research pile in making the sentinel bags if necessary.