

March 14, 2014

Paul Cross
GreenScene Agritek Inc.
40874 Yale Rd.
Chilliwack, BC
V2R 4J2

Dear Paul Cross:

Subject: FECAL Coliforms as an Indicator Organism

With respect to monitoring your sterilization process for horse bedding for bacterial contamination, I would like to offer the following technical justification for using Fecal Coliform bacteria as an indicator organism for testing the end product. To be an effective indicator organism, the microorganism must be a) likely to be present in significant quantities in the process feedstock, b) be at least as resistant to the heat treatment as other, less numerous species and c) be able to be tested in an accurate manner.

As the coliform group includes genera that originate in feces as well as other, non-fecal, sources they are virtually guaranteed to be present in large quantities in all sources of used horse bedding. The test methods for this group of bacteria are well characterized and known to be reliable and being thermotolerant, they should reflect the "kill rate" of other bacterial populations that may be present from time to time. Thus the absence of these bacteria will always indicate a decontamination of the product rather than an absence of the bacteria in the input material. In addition, the results will also confirm the destruction of non-fecal pathogens such as the *Mycobacterium tuberculosis* complex that may or may not be present in the source material.

Sincerely,



Walter Brandl
Operations Manager
Silliker JR Laboratories