



# Transform Compost Products

*healthy soil, healthy future*

## Worm Castings Verification Process

April 2022

Transform's worm castings are produced according to the requirements specified by the Canadian General Standards Board Document CAN/CGSB-32.311-2020 Amended March 2021 – Organic Production Systems Permitted Substances Lists. The requirements also refer and comply with CAN/CGSB-32.310 2020 – General Principles and Management Standards; and the CCME Guidelines for Compost Quality.

Table 4.2 in CAN/CGSB-32.311 identifies the requirements for worm castings:

*“Worm castings (also called vermicompost, worm compost, vermicasts, worm humus or worm manure) are the end product of the breakdown of organic matter and compounds by some earthworm species.*

*Feedstocks for earthworms shall meet the criteria in Table 4.2 Compost feedstocks.*

*The operator shall be able to demonstrate that:*

- a) worm castings produced either on the farm or obtained from off farm sources meet the limits for acceptable levels (MPN/g total solids) of human pathogens as specified in Guidelines for Compost Quality; or*
- b) that best practices known to eliminate human pathogens during vermicomposting have been used.”*

The earthworm species used to create Transform Compost Products' worm castings is the *Eisenia fetida* or red wiggler worm.

The compost feedstocks used to create Transform Compost Products' worm castings is 100% separated dairy cattle manure, where the animals are able to roam freely in a barn, and are not kept permanently in the dark, which conforms to the criteria specified in 5.5.1 of CAN/CGSB-32.310 which states:

*“Animal manure produced on the operation shall be used first. When all available manure is used up, organic manure from other sources may be used. If organic manure is not commercially available, non-organic manure is permitted provided that:*

- a) the non-organic source is not a fully caged system in which livestock cannot turn 360°, and*
- b) livestock is not permanently kept in the dark, and*
- c) the source and quantity of manure, type of livestock, and evaluation of the criteria in 5.5.1 a) and 5.5.1 b) shall be recorded.”*

Transform Compost Products' worm castings have a fecal coliform content of 10 MPN/g dry solids, and no *Salmonella* (analysis attached), which meets the limits for acceptable levels of human pathogens as specified in the Guidelines for Compost Quality:

*“Organism content shall meet the following: “Fecal coliforms < 1000 most probable number (MPN/g) of total solids calculated on a dry weight basis, and No Salmonella sp. With a detection level <MPN/4g total solids calculated on a dry weight basis”*

Best practices known to eliminate human pathogens during the vermicomposting process have been used, including precomposting the feedstock.

Transform Compost Products' worm castings meet the trace element requirements of the Guidelines for Compost Quality, and contain no foreign matter or other contaminants.

This report prepared by John Paul, PhD P.Ag.