

Details of Technology

Name of Technology	Elucidation of functions of cell growth factor derived from earthworms, and invention of multifunctional hardened products derived from earthworm castings	Life Science
Name/Post/Faculty	Shinichi Oda / Associate Professor / Academic Group of Animal & veterinary Sciences, Department of Animal Science, Faculty of Agriculture	
Key words	growth factor derived from earthworm, supplements for animals, hardened castings	

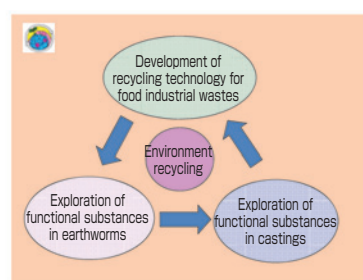
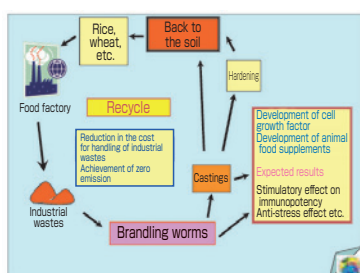
What kind of technology is this?

Outline

- **Proposal of technology for utilizing food industrial wastes as a recycled resource**
 - **Development of functions of earthworms and their castings, and commercialization of the products**
 - **Development of supplements for stimulating immunopotency in pets and industrial animals (cows, pigs, chickens, etc.)**
- These are also related to “environmental recycling.”**

Objective: to develop a method for utilizing earthworms and their casting which are increased by recycling. The earthworm itself is a good quality protein source and can be utilized as food for birds and exotic animals as well as fishing bait. We are now collecting data on the beneficial effects of earthworms with a view to develop food supplements for domestic animals and pets. The earthworm castings also have a deodorant effect. Thus, it would become possible to eliminate the odor of wastes by keeping an appropriate ratio between the wastes and earthworm. In this research, besides the utilization of earthworms as a gardening resource, we aim to make a high-value added product by the hardening etc. of earthworm castings.

Main result: we are now developing food supplements for animals and examining the effects of possible materials.



What are its applications?

- Recovery of valuable materials from industrial wastes (examination of production of recycled resources)
- The development of food supplements for industrial animals and pets may contribute to breeding management for enhancement of disease resistance.

Related patents	Japanese Patent Laid-Open No. 2007-308325	
Related materials	INS "Iwate Earthworm Research Society" AFR "Research Society for Animal Food Supplements"	