

## \$1.2M Grant Awarded to Company Destroying Plastic with Earthworms

Turning plastic waste into fertilizer: NSF awards \$1.2M grant to WriggleBrew for breakthrough worm-based plastic recycling technology.

LAKE MARY, FL, UNITED STATES, July 17, 2025 /EINPresswire.com/ --WriggleBrew, an Orlando-based biotech startup, has been awarded a **\$1.2 million Phase II grant** from the National Science Foundation (NSF) to further develop a groundbreaking new process for turning dirty plastic waste into safe, nutrient-rich fertilizer using earthworms and beneficial microbes. The process eliminates all traces of micro and nano-plastics, and leaves behind a useful, organic fertilizer precursor.

Founded in 2022, WriggleBrew produces OMRI-listed organic liquid fertilizer made from worm castings, chitin, mycorrhizae, and rhizobacteria. Its flagship product is a novel organic fertilizer that is safe for people, pets, pollinators, and waterways. But behind the scenes, the company has also been developing a revolutionary method to deal with one of the planet's most persistent environmental problems: plastic.



The WriggleBrew Team



Research Taking Place at the Orlando Lab

Utilizing the same earthworms the company is currently farming en-masse for its fertilizer

production, the new process, named "Polycomposting" enables the rapid disintegration and effective destruction of plastic waste and enables its conversion into fertilizer.

The new NSF-funding will support a scaled up research endeavor that will pilot plastic collection and bioconversion in several locations around the state of Florida. The novel system breaks down common plastic wastes such as polystyrene foam and plastic bags (currently recycled at low rates) into compounds that can be digested by earthworms. The process not only keeps plastic out of landfills and waterways but also converts it into a safe, microplastic-free soil amendment that can regenerate degraded farmland.

"This grant allows us to scale a system that doesn't just recycle or sequester plastic



Earthworms composting material that was once plastic

waste, but actively eliminates it," said Sam Baker, CEO of WriggleBrew. "We're honored to receive NSF's support to advance a technology - it's funding that's going to change the way things work".

The grant will fund new research, equipment purchases, and expanded pilot production at WriggleBrew's facility. The company is also expanding its own worm farming operation and inhouse microbe lab to fully vertically integrate the process from waste input to final fertilizer output.

The National Science Foundation is an independent federal agency that supports fundamental research and innovation in science and engineering across the United States.

For more information, visit: wrigglebrew.com

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