

Plastic Micro-Fragments Turn Compost into Potentially Hazardous Material

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January 9, 2016

As more municipalities and event organizers begin collecting organics for composting, program administrators and commercial facilities are learning about the opportunities and risks of including non-food materials such as paperboard.

Plastic-Coated Paperboard Versus Compostable Plastics

Natural paperboard is often coated with a thin layer of polyethylene to make it functional for cooking and for serving food and beverages. However, research has shown¹ that polyethylene not only retards the breakdown of paper layers, it eventually breaks into fragments, some too small to be screened out. Because these plastic fragments do not meet the ASTM standards for compostable plastics, “we can expect them to persist indefinitely in a variety of ecosystems and to be so widely dispersed that it will be impossible to clean them up,” write the authors of [New Opportunities in Recycling and Product Manufacture Eliminate the Environmental Hazards Inherent in the Composting of Plastic Coated Paper Products.](#)²

In contrast, compostable plastics are designed to break down completely in a specific environment that may or may not include industrial composting facilities, according to the Biodegradable Products Institute (BPI).

Pledge to Accept Only Compostable Plastics

Non-biodegradable plastics cost the composting industry millions of dollars every year because of increased processing and disposal costs and because they lower the value of finished compost³—to say nothing of the longer-term costs to the environment and human health.

[Eco-Cycle](#), a non-profit recycler based in Colorado, is among industry leaders pledging to accept only certified compostable plastics. They have also committed to do the necessary community education to prevent other kinds of plastics from entering the composting stream.

Look for the BPI Label

The most reliable way to tell if a product or packaging is compostable is to [look for the BPI label](#). The label certifies that the material has been shown through independent laboratory testing to safely break down in a commercial composting facility. The Biodegradable Products Institute also offers a list of [plastic bag and food service products that meet the ASTM compostability standards](#)

Community Education Resources

The Composting Council Research & Education Foundation offers multiple [resources for haulers, composting facilities, and municipalities](#). Case studies and examples of education and outreach efforts are also available online to help municipalities and event organizers properly manage a composting program that includes compostable plastics.

¹ Woods End Laboratories, Inc., Mt. Vernon, ME

² Brinton W, Dietz C, Bouyounan A, Matsch D. New Opportunities in Recycling and Product Manufacture Eliminate the Environmental Hazards Inherent in the Composting of Plastic Coated Paper Products. April 2011.

³ [U.S. Composting Council](#)