AZRC Convention 2010 Presentation

"Sun Chip Bag 101"
by

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Frito-Lay

Developing a Better Bag

- Past 5 year history – 5MM
  - Size optimizations
  - Film thickness improvements
  - Seal changes
- The Next Step
- Traditional bags – layered
- 4 years of research = PLA
  - Polylactic acid
  - Made with plants v. petroleum
  - Versatile polymer

Comprehensive Research

- Laboratory
- Industrial Compost
- Home Compost

(1) Laboratory Testing

- Woods End Laboratories
- First set of tests – 12 to 16 weeks
- Creating a right mix of ingredients – 13 weeks
- ASTM D6400 test
- Certified by BPI

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(2) Industrial Compost Testing

- Real-life industrial compost facilities
- Cedar Grove Composting – Seattle, WA
- Municipal Green Yard Waste Facility – Chico, CA

Traditional Bag (OPP) v. Sun Chips Bag (PLA)

- Conducted in a green yard waste facility
- After 22 days – significant degradation
- After 42 days the Sun Chip bag was gone
- 8 WEEKS!

(3) Home Compost Testing

- Our goal is to also educate and create awareness
- Woods End – creating conditions like at home
- Through the test there were two main conclusions

(A) The bigger the compost pile/bin, the better. Compost bins larger than 21 cubic feet were able to reach the temperatures required for hot, active composting and to break down the Sun Chip bag quickly.

(B) Hot composting temperatures (> 130 degrees F) were reached using an optimized recipe with common household ingredients.

Video Showing Degradation of our 100% Compostable Bag

A chamber was created for composting to take place under typical conditions. There were some challenges. We had to heat the glass so that it would not cause the compost pile to lose more heat than it would normally. 14 weeks with pictures every 15 minutes.

Frequently Asked Questions:

1. What is unique about this bag?

2. What is the benefit to a chip bag made from plants?

3. What is the benefit of the bag being compostable?

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4. How fast will this bag compost?

5. What evidence does Sun Chips have that this bag will compost?

6. Do consumers value these benefits?

7. The bag seems louder than regular bags. Why is that?

8. Where can I find out more information?

Introducing the World's First 100% Compostable Chip Bag, Made from Plants!

2010 R&D 100

Award Winner