



January 20, 2009
St Pete Beach, FL

PSSMA Direction

- PSSMA – Paper Shipping Sack Manufacturers Association
- Covers the vast majority of Multi-Wall sack producers in United States
- Two technical activities currently underway
- Carbon Footprint Study
- Repulpable- Recyclable Pet Food Bags

Typical Pet Food Bag Construction

- Multiple layers of paper of different properties with a layer of polypropylene film
- 100% plastic comprised of different layers
- Woven polypropylene fabric with different layers of plastic

Pet Food Bag Purpose

- Contain the product under normal handling conditions throughout the supply chain
- Contain odors, grease, oils, and fats
- Easiest, least expensive materials today include some kind of polypropylene barrier

Repulpable Pet Food Bags

- Pet Food Bag is landfilled today. None are repulpable.
- For various reasons, multiple materials or lack of infrastructure, none are recycled.
- Prevents environmental benefits from being advertized and communicated to Consumer
- Desire is for ALL components of Pet Food bag to fit into Repulpable, Recyclable classification

Repulpable Pet Food Bags

- (Some) Consumers concerned about recycling.
Majority of materials in MW Pet Food bags, 90%, are
- - renewable,
- - repulpable
- - compostable
- - recyclable

Repulpable Pet Food Bags

- PSSMA has asked Associate Members for help.
- Objective is a repulpable, recyclable grease barrier so empty MW bag can be kept out of landfill.
- Have heard discussions about repulpable hot melt glues, repulpable coatings, different functional films. Solution will need to come from suppliers to the industry.
- April PSSMA meeting will focus on this topic

Carbon Footprint

- Driven by Wal-Mart- Sustainability- “Eco Friendly”
- All of our customers are asking about it
- Everybody starts with LCA.

Carbon Footprint

- LCA – several different terms being used but basically, Life Cycle Analysis. Impact of product on Earth from “Cradle to Grave” or more PC , “Cradle-to-Cradle”
- Measures all aspects of product from initial mining of materials, planting of trees, harvesting of trees, all production steps, handling, final disposition be it incineration, landfill, recycling.

Carbon Footprint

- LCA is very
 - specific, is valid for ONLY one specific product of a specific size of a specific construction with a specific final disposition
 - labor intensive, takes many hours to measure and collect the data
 - has gotten to the point where the New Generation of Business Consultants have convinced industry that only specially trained personnel is capable of doing this activity. (House of Quality)
 - EXPENSIVE. Typical costs for an LCA is \$50,000!!
- In many instances the source of the data base is questionable. Results are TOTALLY dependent upon the limits (boundaries) of the study.
- Reports are 25-45 pages long and the final result for a product can not be compared to another product without another LCA.

Boundary/Assumption questions

- Does convertor start with harvesting a tree or unloading a truck of paper?
- Do we start with the mining of feldspar for FC treatment? Mining the clay in Georgia?
- Is energy from oil generator, nuclear, hydro, wind?
- Is petroleum from Prudhoe, North Sea where it is more pure, Middle East, oil shale rock, all North America?
- Origin of plastic- Natural Gas, oil, or corn? Off-shore or domestic? If corn, is mining the metal for manufacturing the tractor to plant the corn included?
- And on and on and on and on it goes.
- The answers to the questions on Limits and Assumptions will impact the results in a significant way.

Carbon Footprint

- LCA is not practical and will not work
- NCASI (National Council for Air and Stream Improvement) presented a proposal to PSSMA for an LCA of any specific product desired.
- PSSMA responded with a counter proposal of three MW products and tie-in to AF&PA proposal.
- Final LCA results still would not allow PSSMA to compare various products
- PSSMA rejected the proposal

Carbon Footprint

- PSSMA and NCASI discussions still were occurring.
- PSSMA proposed an idea to do a “partial” LCA.
- Include a database of Carbon Sequestering which current LCA databases do not have.
- Allow the study to end with Carbon impact on a per unit basis of one ton of material.
- Include different “end of life scenarios”.
- Standardize paper data, chemical data, all types of typical plastic data and converting data.
- Final report will be an “Excel spreadsheet” allowing companies to plug in different designs and construction materials to compare different products in a rational manner.

Carbon Footprint

- Special working committee comprised of Bob Langston, Mike Amato, Dan Keefe, Macy Wall, Louis Rothschild, and Stuart Sharp assembled to work with NCASI.
- NCASI responded favorably to PSSMA proposal.
- Database currently being generated. NCASI working with the paper industry. Will include bleached, unbleached, Clay Coated and non CC, MW Kraft, and Extensible. Assuming Basis Weight does not make a difference. Database being generated for shipping, final disposition. Going to take industry average and percentage relationship of total for assumptions.

Carbon Footprint

- Convertors will fill out a questionnaire to include raw materials, water consumption, energy, emissions, and other packaging materials, i.e. stretch wrap, pallets.
- Working committee will be part of peer-review of database, coordinate activities, have progress meetings, etc. arranging training sessions on How To Use Results.
- PSSMA BOD has approved this special project and work is underway.
- Final results expected in June.
- Results will NOT be an official LCA but will be an “OFFICIAL Predictor of Carbon Footprint Impact”