



# Industry Forum on Responsible Packaging

Expo East

Baltimore, MD

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## Questions... >>>>>>>

- 1.** What would a sustainable, GMO-free biopolymer feedstock production system look like (farmer income, soil and water quality, energy use, climate considerations, etc.) -- and how would the industry both support family farmers in producing these materials and promote this linkage in their product marketing?
- 2.** Infrastructure: The lack of an infrastructure to close the technical and biological loop present huge challenges to sustainable packaging. This includes few industrial-scale composting systems, many different plastics in the waste stream, sorting problems, underfunded local government programs, etc.

What steps could the natural foods industry take to address this "system" issue?

## Summaries ... >>>>>>>

### GOUP: LINUM

1. Sustainable, GMO-free Biopolymer Feedstock system
  - grow perennials on marginal lands
  - examples - switchgrass, other grasses, hemp
  - biomass-sugar cane, straw from grains, corn stover, barley, wheat, corn, other grains, hulls
  - genetic, plant breeding studies for easily extractable and hydrolyzable carbohydrate polymers
  - end-users, e.g., Whole Foods, Walmart, create cooperatives with farmers, including financial incentive contracts and an assured market
2. Infrastructure "System" issue
  - end-users, e.g., Whole Foods, Walmart, Home Depot, etc., create a consortium, cooperatives, in farming communities

- industry invest in local government encouraging recycling systems - build recycle products infrastructure including natural foods industries, farming communities, cities working together
- create cooperatives
- focus on rural, regional areas, States
- develop selected markets, niche markets, mail order farmers
- natural foods industry focus on it's own products - select packaging material(s) and focus on it(them) to make work; create incentives; the idea is to create a success story for others to follow

### **GROUP: AFRICAN DAISIES**

1. Sustainable standards (not just Ag)
  - Incorporating hierarchy of materials
    - By products
    - Perennial
    - Sustainable Ag
  - Retailer pull-through
  - Policies promoting sustainable production (farm bill)
  - Developing labeling standards
  - Retailers giving preferential sourcing & financial incentives to vendors (no slotting/ no promotional requirements)
2. Establish a clear hierarchy for sustainable packaging
  - Remove toxins before moving to wide scale composting
  - Mandatory transparency of all materials
  - Uniformity of standards and labeling
  - Financial & policy mechanisms that promote composting of clean materials over other options (e.g. landfill, incineration)
  - Reach out to other stakeholders

### **GROUP: FORGET ME NOTS**

1. Get players on same page:
  - Include other industries (Eco-Partners)
  - Create task force – *Responsible Packaging Taskforce*
  - Collaborate w/ researchers
  - 1 + 1 = 11
  - Chasing arrows (e.g. recycling nomenclature) w/ zero instead of seven
    - a. Rallying point
    - b. Common language
    - c. Common purpose
    - d. Marketing tools
    - e. Education (eco-literacy, especially consumers)
      - i. Creates consumer demand)
2. Incentives (for farmers, mfrs., industry):

- Govt. policy/ subsidies
- Loans from companies
- Consumer demand
- Reduce costs (industry)
- Secondary revenue for farmers (byproducts)
- Environmental/ health benefits

### **GROUP: UNKNOWN (green marker)**

1. Incentives
  - Policy change
    - a. Phase out subsidies from GMOs to organic/ sustainable forms
  - Crop change
    - a. Select crops that cannot cross-breed w/ current GMO crops
  - Transition away from persistent pesticides
  - 3<sup>rd</sup> party oversight
  - Transparency of packaging ingredients
  - Farmers run diesel vehicles on *home grown fuel*
  - Buy the cash crop/ fuel products
  - Work land certificate
  - Create a pact to buy sustainable, GMO free... products
  - Umbrella organization
    - a. R&D
    - b. Mainstream package, info/ ingredient label
2. Educate ourselves
  - Create umbrella org/ foundation
    - a. Mission – sustainable packaging
    - b. R&D
    - c. Related by natural food industry
  - Compost in more stores where infrastructure is available
    - a. Run pilot programs - make it easier
  - Set standards
  - Compostable labeling
  - Don't do biopolymers bottles yet
  - More fund available for end of life nutrient recovery...

### **GROUP: COLUMBINE**

1. Address policy issues to incentivize biodiversity of feedstock
  - Regional/ local facilities
  - Renewability of all inputs (elec., fuel, etc.)
  - Ensure maintenance of sustainability through all end of life scenarios
2. End of life
  - Redesigning packages to mimic bottles so they are recyclable
  - Redesign infrastructure

- Optical sorting
- Municipal recycling facility (MRF) to process all materials
- Take-back programs
- Beginning of life (i.e. recycled content)
- Green Harvest Technologies – sustainable PLA

### **GROUP: CALIFORNIA POPPIES**

1. Modify govt. policies on US farming that (illegible) the relationship between the incentives for crop selection, production, and to minimize outsourcing
  - Create venues where farmers and end users can meet and the end users can learn from the farmer
  - Education efforts can be implemented in the farming industry cross continentally
    - a. Education fro children about where food comes from
    - b. Recreating connection of the farmer and the consumer
2. Mandate recycling
  - Educate from the environment all folks to municipal campaigns
  - Get vendors involved in political system (legislative advocacy)
  - Inform scientific community of industry needs for packaging

### **GROUP: UNKNOWN**

1. Create biopolymers from perennial crops like switchgrass
  - Farmers can gain income from unused marginal land
  - Perennials limit erosion and limit use of chemical inputs
  - Perennials reduce farm energy input
2. Promote by use of cooperatives that purchase and use the biopolymer
  - a. Guaranteeing a market for the feedstock (i.e. prepared food packaging)

### **GROUP: ASTER**

1. 3<sup>rd</sup> party auditing to ensure the standards are in place and help them evolve
  - Funds – these are needed to start the shift
    - a. This can be provided by industry, state, and national govt.
  - Economic modeling from the farmer to the shelf
  - Technology transfer – research and education
  - Education
  - Creating symbol to meet the goal of consumer
  - Telling the story
  - Industry organization
2. Incentives
  - Govt. changes
  - Private funding/ lobbying

### **GROUP: NICOTIANA**

1. Support & promote
  - Fair \$/ value of benefits
  - Commit to partnerships
  - Network/ pair vendors/ share knowledge and expense
  - Develop industry standards
2. System issue
  - Engage local govt for support (education and monetary)
  - Ask vendors to get involved
  - Simplify info to consumers
  - Encourage suppliers to be involved in total life cycle of product
  - Create a network of green vendors and pool resources to support the mission

### **GROUP: NASTURIUM**

1. Biopolymer criteria does not remove fertility from farms; enhances fertility
  - Local/ regional food systems
    - a. reusable packaging; bulk & retail
    - b. logistics and distribution
    - c. Cycle: farm -> food & materials -> local processing -> compost (biodiesel is byproduct @ farm and local processing)
  - National & international systems
    - a. Recyclable and/or compostable
    - b. Eliminating unsafe plastics and additives
  - Industry collaboration to reduce packaging size nationwide
  - Credit systems are the first step; goal is direct use of sustainable crops

### **GROUP: UNKNOWN**

1. Perennial crops
  - Natural grazing
  - Fossil fuel reduction
  - National runoff of groundwater
  - No soil erosion
  - Advertise support of initiative
2. Establish conformity/ standards in composition of packaging
  - Lobby governments to redirect farm subsidies to build regulation/ subsidy regulation of composting facilities
  - Industry to help fund local govt. programs

### **GROUP: SNAP DRAGON**

1. 3<sup>rd</sup> party certification for biopolymers to create more demand for standardized biopolymer production

- Change farmer incentives/ govt. subsidies to encourage diversity and more profitability (premium products)
- Educate consumers through marketing
  - a. Identify local product
  - b. Work w/ municipalities
- 2. Improve on internal company/ business packaging and minimizing where possible
  - Set new industry standards locally (Styrofoam) and use these as future models
  - Create a networking system
  - Urge municipalities to compost – letters, ect.
  - Create new economic systems
  - Standardize the plastics industry to better reflect the most commonly recyclable and safe plastics (i.e. #1, #2)