



Aggregating Demand

**Shifting the Market
towards Sustainable Materials**

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Green Harvest Technologies**

Green Harvest Technologies



Corporation™

Setting the new corporate
standard for social and
environmental performance.

- Green Harvest is a Social Mission Company
- We create bio-based plastic consumer products for the outdoor, family and baby, food and beverage, and health and wellness markets. First product – A biobased reusable water bottle.
- We work with manufacturers to incorporate sustainable biobased plastics and materials into their products.
- We initiate and work with sustainability initiatives for biomaterials and bioplastics

**Stakeholder
Engagement**



**Green Chemistry
Research &
Development**



Production

**Market
Transformation**



Policies

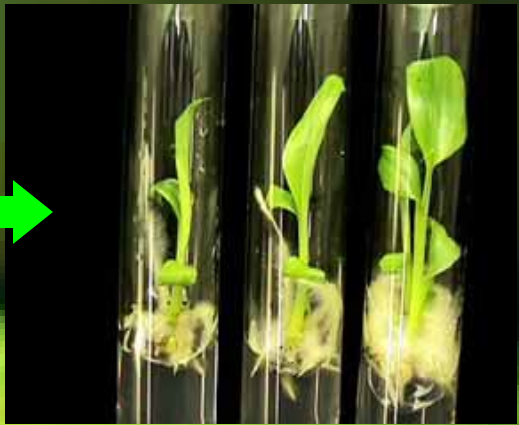
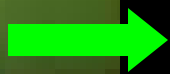
**Sustainable
Materials
Economy**

Procurement

**Regional Economic &
Workforce Development**

**Guidelines, Purchasing
Specs. & Certification**

Market Transformation



Moving Market sectors towards Sustainable Materials

Purchasing or Shared Services Cooperatives

Cooperatives whose members are other businesses or public entities which join together to increase the performance and competitiveness of their organizations.

Purchasing/Shared Services Co-ops

- negotiating prices with vendors
- purchasing of supplies or inputs for the business
- offering private labeling or branding of products
- purchasing items for resale
- providing joint advertising and marketing
- providing joint delivery services for products
- contracting for services on behalf of members
- providing or contracting for insurance, health care, or other benefits
- warehousing products for members
- offering training and educational activities

Sectors using Cooperatives

- Health Care
- School districts
- Independent pharmacies
- Fast-food restaurants
- Businesses providing day-care
- Independent hardware retailers





Group Purchasing Organizations

Consorta

Premier

Amerinet

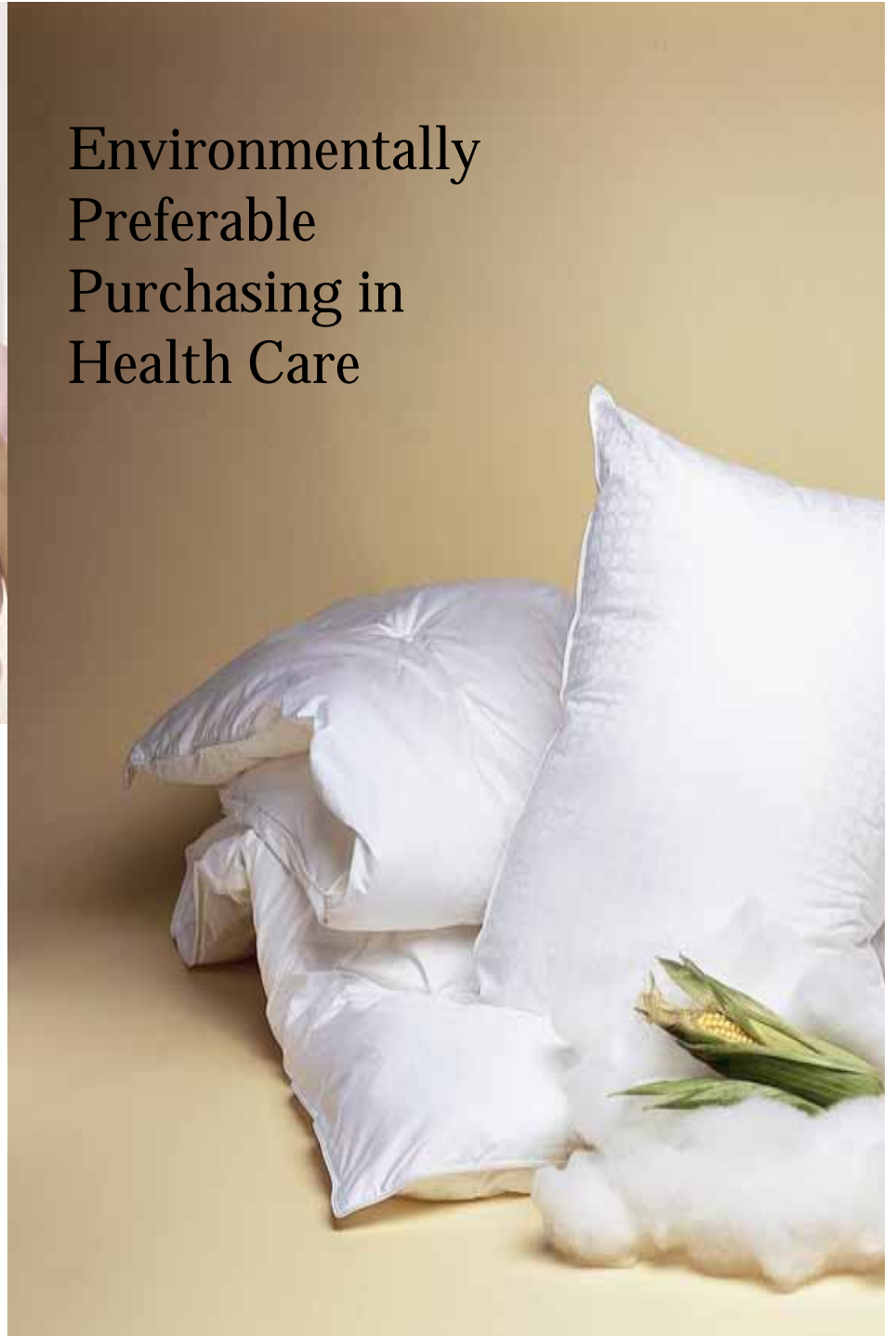
MedAssets

Broadlane

Novation



Environmentally
Preferable
Purchasing in
Health Care



Sustainable Life Cycle Thinking



Low VOC Installation

Emission free use & maintenance

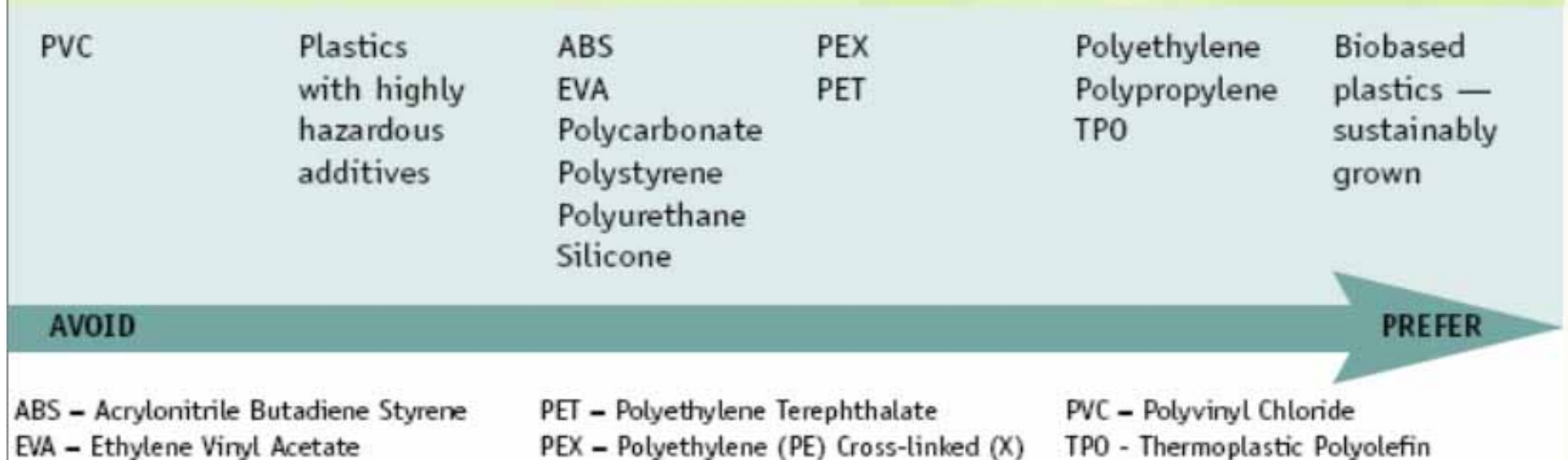
No toxic manufacture

Recycle or grow with sustainable agriculture

Compost or collect

Clean refine or repolymerize

Plastics Environmental Preference Spectrum

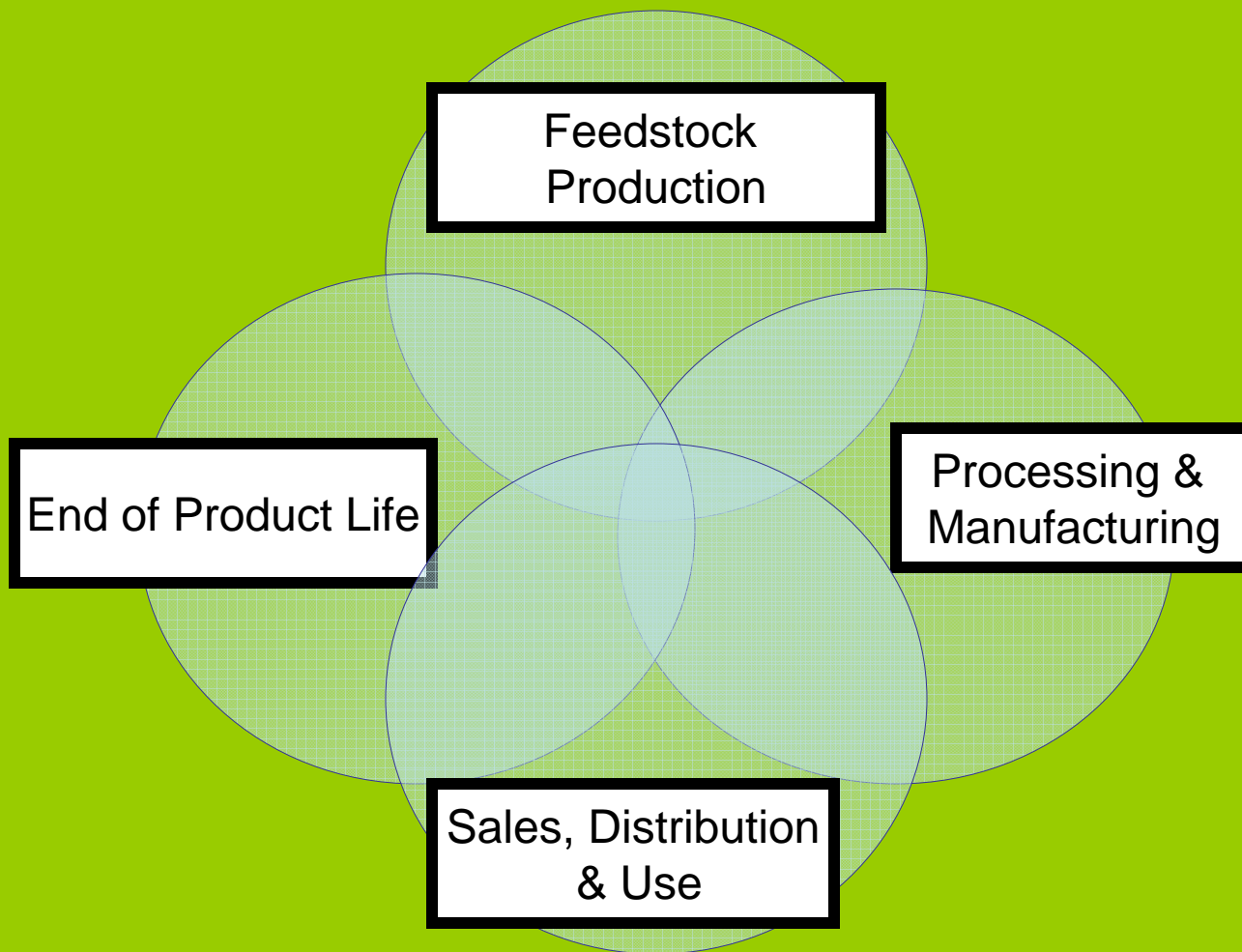


Designing the 21st Century Hospital

Sustainable Biomaterials Collaborative

Sustainable Bioplastics Guidelines

Steps to Best Practice



As You Sow | Center for Health, Environment and Justice | Clean Production Action * Environmental Health Fund | Green Harvest Technologies | Health Care Without Harm | Healthy Building Network Institute for Agriculture and Trade Policy * | Institute for Local Self-Reliance* | Lowell Center for Sustainable Production * | Sustainable Research Group | Pure Strategies | RecycleWorld Consulting | Science & Environmental Health Network | Seventh Generation| National Campaign for Sustainable Agriculture

* Steering committee

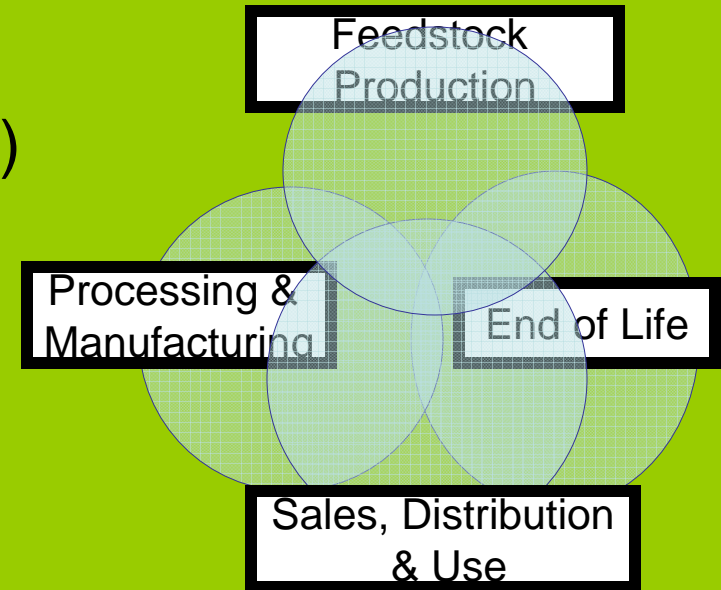
Feedstock Production

- Eliminate use of key hazardous chemicals of concern
- Use of Non GMOs (or offset program)
- Sustainable farm practices
- Reduce impacts of energy use

Processing and Manufacturing

- Reduce impacts of energy use
- Avoid problematic blends and additives and encourage recycling
- Maximize process safety and minimize hazardous emissions
- Protect workers
- Create durables

Sustainable Bioplastics Guidelines

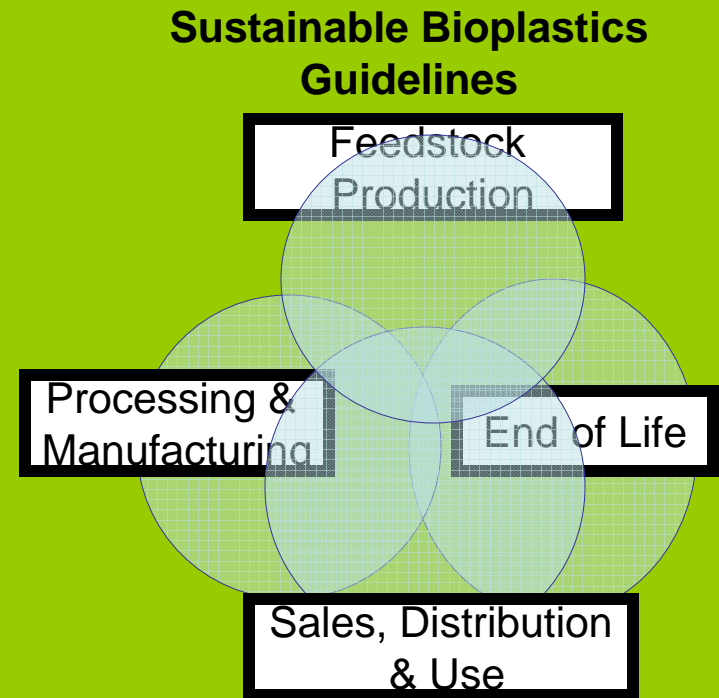


Product Distribution and Use

- Reduce quantity used
- Avoid unhealthy exposures
- Create opportunities for sustainability education
- Label material content
- Prefer local

End of Product Life

- Closed loop recyclable and/or for compostable
- Create reusables



Business-NGO Working Group for Safer Chemicals & Sustainable Materials

Participants, including:

Businesses: Dell, HP, Consorta, Nike, Interface, Whole Foods, Kaiser Permanente, United Technologies

Market Campaigns: Health Care, Safe Cosmetics Campaign, Computer Take Back, Investors, Healthy Building Network

Developing Purchasing specifications

Working with Sustainable Bioplastics Guidelines



Choosing Environmentally Preferable Food Service Ware

Reusable and Sustainable Biobased Products



HCWH Food Service Ware Materials: Environmentally Preferable Purchasing Hierarchy

Preference Hierarchy	Criteria
Most Preferred	Reusable
More Preferred	Biobased products - Beyond Baseline
Preferred	Biobased products - Baseline Sustainability Criteria
Less Preferred	Biobased products (do not meet sustainability criteria)
Least Preferred	Fossil fuel & disposable

Aggregated Demand Initiative

- Model new type and degree of collaboration
- Make the business case for market transformation
- Craft a “transition agenda”
- Align purchasing criteria across sectors
- Share information
- Identify and facilitate common research & development projects
- Make group purchases
- Cooperate on end-of-life strategies

NatureWorks

- Purchase of NatureWorks PLA with Working Landscape Certificates

• Lactic Acid Based IP

PLA & Lactic Acid Plant; Blair, NE
300 MM Lbs. PLA Capacity

- minimum of 5 million pounds.

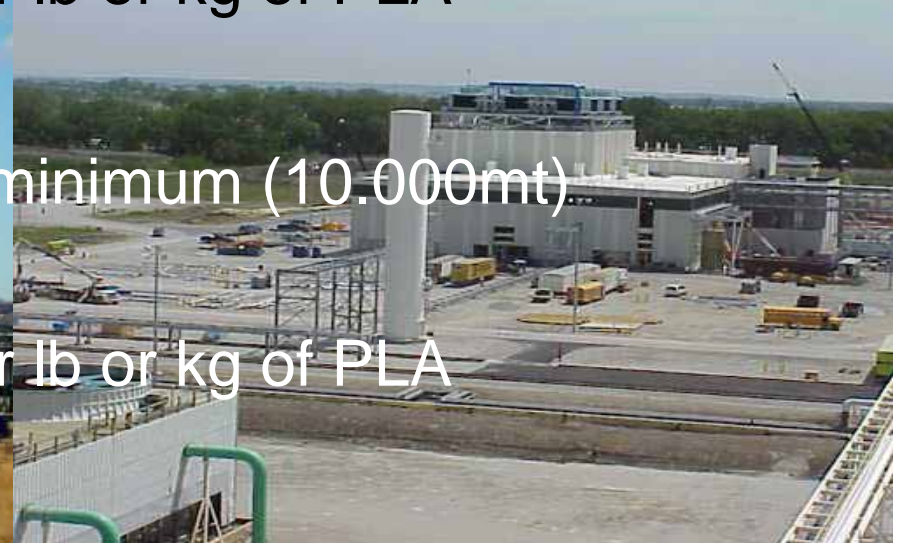
- approximately 40% more per lb or kg of PLA

• Corn IP program

- requires a 22 million pound minimum (10,000mt) campaign size

- approximately 40% more per lb or kg of PLA

Lactic Acid Plant; Blair, NE
400 MM Lbs. Lactic Acid Capacity





Institute for Agriculture and Trade Policy
Where global and local meet sustainability



Working Landscape Certificates



Opportunities for New Feedstocks

Building
Regional
Feedstock
Sources



Aggregated Demand Initiative

greenharvest
TECHNOLOGIES

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