Reducing Food Waste: How Packaging Can Help

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HAVI Global Solutions, LLC (HGS) is a consulting, design and execution company dedicated to helping our customers grow smarter by delivering strategic and operational competitive advantage.

- Promotions Management: We move more than 1.5 billion premiums annually across the globe.
- Analytics & Supply Chain Services: Approaching $1B in network savings via supply chain optimization.
- Packaging Technology: Design, source and deliver over $3 billion of packaging annually.
- Recycling & Waste Solutions: Decades of experience spanning multiple business models and invaluable relationships.
Packaging’s most important role is at the top of the Food Recovery Hierarchy – Source Reduction of food waste.

Some ways packaging reduces food waste:
• Transportation/ Containment
• Shelf life extension
• Product protection
• Reclose features
• Portion control

Source: EPA
Food Loss/ Waste – Where it occurs

Figure 2: The make-up of total food waste along the food supply chain

Source: FoodDrinkEurope
Consumer Trends

- Taste
- Convenience
- Nutrition/ Health
- Environment/ Sustainability
- Safety, Security, Authenticity
- Quality

Packaging designers balance consumer desires with regulatory, safety, branding, product protection, end of life options – and minimize waste across the entire value stream.
Potential Food Waste/ Packaging Drivers

Legislation

Social

Economic

Environment

Freshness/ Health

Future Trends
Packaging Value Chain Perspective

Need all critical pieces of the value chain working together through technology, collaboration, and education.
A Look at Packaging & Food Waste

• Lightweighting
• Flexible packaging
• Biobased materials
• Process technologies
• Extended shelf life technologies
• Reclose features
• Portion Control
• Central processing
A Look to the Future of Packaging & Food Waste

- Packaging & equipment for developing world
- Help control/monitor “in pack environment”
- Biobased packaging with barrier properties
- More e-commerce packaging for food
- More compostable packaging
- More optimized packaging + product
- Internet of things - packaging link through distribution
- Consumer link / information - NFC, 2D bar codes, etc.
- Stronger collaboration (ex. EPA Food Recovery Challenge)
- More end of life considerations
What’s missing/ needs

• Education for consumer
• Explanation of packaging benefits
• Education on compostable packaging
• No home compostable standard in the US
• Stronger links between package designers and waste management/ recovery systems
• Impact of e-commerce / groceries on food waste
• Tools to improve product + packaging decisions
Examples of Packaging and Food Waste Reduction
Packaging / Food Waste Reduction Examples – Extended Shelf Life Technology

• Berries are one of the biggest areas of retailer food waste due to short shelf life

• Two recent technologies to extend shelf life of berries
  – Perforated lidding film
  – Ethylene absorbing pad
Packaging / Food Waste Reduction Examples – Education

• Most consumers do not understand the value of packaging and technology built in to reduce food waste

• WRAP (UK) Consumer survey showed
  – 13% of consumers understood that keeping food in original packaging keeps food fresher, longer
  – 61% thought fruit and vegetables “go off” quicker in packaging

• Started campaign called “Fresher for Longer” to educate on food waste & packaging

Source: WRAP – Love Food Hate Waste – Fresher for Longer
Packaging / Food Waste Reduction Examples – Collaboration

• Courtaulds Commitment – started 2007
  – Phase 1 – reduce packaging usage (by weight)
  – Phase 2 – reduce carbon impact of packaging
  – Phase 3 – food waste reduction
    • Target 5% consumer household reduction
    • Reduce grocery channel waste by 3%
    • Package optimization, no carbon impact
What does this mean for you?

Municipalities/ Educators/ Material Recovery Providers/ NGOs

- Educate consumers on food waste and packaging’s value
- Educate/ explore linkages with packaging value chain
- Explore new waste recovery options – composting, compostable packaging, food banks, flexible packaging, polypropylene outlets

Packaging Value Chain

- Explore further shelf life extension technologies
- Understand packaging end of life early in development
- Educate consumers on packaging value and food waste prevention
- Develop low cost packaging equipment/ materials for developing markets

Packaging = Food waste prevention
Packaging ≠ Waste