Hottest
Flexible Packaging & Labeling
Opportunities

KEY MARKETS & FORMATS

Highlights of industry market studies

Presented to:

CMM INTERNATIONAL®
The Converting Machinery/Materials Conference and Exposition

Wednesday, April 20, 2005

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Industry Overview

- Value-added three main markets
  - Two are food with 56% revenues
- Labeling similar size to flexible packaging
  - Glue-applied & other often in flexible estimates

Value-Added Flexible Packaging	$ billions 2004	Annual Growth
Perishable Foods	3.1	4%
Dry Foods	2.9	3%
Consumer/ Industrial	4.8	4%
Total	10.8	4%
Labeling (TLMI)	**$ billions 2003**	
Pressure sensitive	5.4	3%
Glue applied	4.6	-1%
Other (roll, shrink, in-mold)	0.7	8%
Total	10.7	2%
Other Flexible Packaging	$5 billion estimated	NA

Value-Added Flexible Packaging - What is it?

- Conforms to product shape
  - Films, foils and papers
  - Bags and wraps
- Contains and protects product
- Used in distribution and display
  - Up to final consumer
  - For a period of at least a day

Not included in value-added flexible packaging (but often in industry estimates)

- Merchandise bags
- Trash bags
- Consumer storage bags
- Foodservice & deli wraps
- Labels (glue-applied, roll or wraparound, shrink)

Sources

- ★ *Flexible Packaging Strategies 2002*
- ★ *Oxygen Absorbers: Hit or Hype?*
- ★ *Case Ready Meat Packaging 2001-2005*
- ★ *Opportunities for Shrink Labels in Bottles*
- ★ *Opportunities for Shrink & Stretch Labels 2009*
- ★ *Retort Pouches and Trays 2009*

Market Segments

- Perishable Foods
  - Requires refrigeration, freezing or retorting to preserve
- Dry Foods
  - Shelf stable, maintain very low moisture, low MVTR films
- Consumer/Industrial
  - Few value-added films

The Hottest Markets

- Case-ready red meat
- Retort pouches
- Shrink labels
- Pizza
- Electronics & computers
- Medical packaging
- Agricultural chemicals
- Foodservice pouches
- Stand-up pouches

Case ready meats

- Package fresh meat at packer v. retail store
- Benefits
  - Reduced labor and other in-store costs
  - More sanitary meat packaging practices
  - Reduced spoilage loss (shrink)
  - Better inventory control (reduced out-of-stocks)
  - More efficient production

Case ready meats

- Potential 9 billion retail packages
  - 780 MM in 1997; 2,600 MM in 2004
  - $123.5MM flexible sales, 19% growth
  - Wal-Mart, food safety major drivers
  - Keeping product in case important
- Many materials used
  - Clear antifog barrier lidding materials
  - Laminates to rigid substrates such as PS foam
  - Masterpack bags
  - High barrier shrink films
  - High abuse shrink films

Case ready meats

- What's holding it up?
  - Retailers use meat department to differentiate themselves
  - Cost savings difficult to verify
  - Investments equipment required of processors
  - Labor concerns over job losses
  - Consumers associate backroom cutting with freshness
  - Longer shelf-life packages look different
  - Adversarial packer-retailer relations

Retort pouches

- Nearly 2 billion sold in US/Canada
  - Pet foods leading - Whiskas, Pedigree…
  - Tuna next - imported product
  - Entrees, rice fast-growing
  - $110.4 MM sales, 18% growth
- Flexible structures
  - Mostly PP/Foil/BON/PET
  - AlOx or SiOx for clear

Shrink labels

- Merchandising impact
  - Full container coverage
  - Emphasizes unique shape
  - Drives growth in single-serve milk
  - Popular for tea, coffee, creamers, water, snacks, sauces, yogurt, sports drinks
- $335.8 MM sales, 12% growth

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Shrink label materials

- Monolayer or laminated reverse-printed films
  - Polyvinyl chloride (PVC) dominant
  - Polyethylene terephthalate glycol (PETG) & other copolyesters highest shrink
  - Oriented polypropylene (OPP) wraparound
  - Oriented polystyrene (OPS) or styrene-butadiene copolymer (SBC) emerging rapidly

Pizza

- Frozen or refrigerated
  - Rising crust renews popularity
  - Oxygen barrier to prevent off-flavors
  - DiGiorno (Kraft), Freschetta, and others
  - $210.1 flexible sales, 10% growth
- Flexible structures
  - Mostly LLDPE or PVC shrink
  - Rising crust Nylon/EVOH/PE

Electronics & Computers

- Systems and components
- Rapid industry growth
- Vulnerable to offshore
- Packaging widely varied
  - Antistatic films
  - Oxygen barrier
  - Cushioning (air cellular)
  - Dust cover
- $67.3MM sales, 10% growth

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Medical & pharmaceutical

- Strong unit growth next two decades
  - Aging of baby boomers
  - Increasing life expectancies
- Aggressive cost containment measures
  - Identify costs for reimbursements
  - Reduce expensive labor costs
    - Pre-packed surgical kits save time to assemble
    - Pouches often used
  - Replace rigid trays
- $1,351.7 sales, 7% growth

Medical & pharmaceutical

- Requirements varied (FDA & sterilizibility)
- Very diverse materials
  - Polyethylene film
  - Coated papers
  - Coextrusions
  - Spun bonded polyolefins
- New products will need packaging
  - Innovation from growth and cost reduction
  - Flexibles package of choice

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Foodservice pouches

- **Key drivers**
  - **Overall economic growth**
  - **Restaurants increase share of the food dollar**
  - **Labor shortages→offsite preparation**
  - **Conversions from higher cost #10 cans**
  - **Efficient supply of “meal solutions”**

Foodservice pouches

- High or moderate barrier materials
  - Coextrusions: barrier (EVOH, PVdC or nylon) with sealant
  - Laminations metallized PET or nylon with sealant
- Pouch fillers or vertical form-fill-seal machines
- $415.9MM flexible sales, 6% growth

Agricultural chemicals

- Bulk commodity-type packaging
  - Flexible
    - Multiwall paper bags and plastic bags
    - Flexible intermediate bulk containers (FIBCs)
    - Bulk container liners
  - Rigid
    - Corrugated (“gaylords”)
    - Metal & plastic drums, pails, bottles and cans
  - Single use, multiple use or permanent
- Products often need more protection
  - Small endusers use less than bulk
  - Bulk containers insufficient product protection

Agricultural chemicals

- Endusers/suppliers unfamiliar with packaging
  - Foil liner to protect from oxidation or flavor loss
  - Metallized or coextruded barrier film cost less
  - Growth in barrier as packagers learn benefits
    - Nylon/PE for aroma/chemical barriers for lawn/garden chemicals
    - Reclosable standup pouches for pesticides, potting soil and rock salt
- $483.3MM flexible sales 5% growth

Stand-up pouches

- Package of choice for pet treats
  - Convenient reclosable zippers
  - Superior graphics
  - Significantly less costly than carton
  - Smaller dry food has converted
- Other surprising markets
  - Lawn & garden chemicals, potting soil & rock salt
  - Baking mixes
- $516.5MM sales, growth 6%

Many other growth segments

- Coffee, especially gourmet
- Fresh produce films
- Oxygen-absorbing films
- Deli meats & cheeses
- Clear film labels

Summary

- Grow faster than economy
  - Protecting broad range of products (staples)
  - Beneficiary of cost reduction
  - Rarely eliminated/replaced by other packaging
  - Opportunity: ADDING VALUE

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The Key to Targeting New Markets