Clean Labels: Implications, Strategies & Tactics

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Clean Labels

- A trend that may “tip” to mainstream
- Impact on processors
- Strategies/Tactics
- Examples
- Recommendations
Any controversial views are mine alone based on long food industry experience
Examples used are taken from the marketplace and public information
Products cited are not Merlin projects to assure our client confidentiality
Clean Label Foods (CLF)

- Traditional Processed Foods
- Clean Label Foods
- Organic
- Clean Label/Natural
- All Other
Growing up along with TPF
(Traditional Processed Foods)

- Child of top chef, in a restaurant family
- Restaurant Shows from late 1950’s on
- Worked in restaurant/food service as a child
- Watched commercials, shopped in 1960’s
- Food Science degree in 1970’s
- Industry career in dominantly in TPF
2 historically separate industries

- **Traditional processed foods (TPF)**
  - Assumption that foods sold are safe—backed by the government & reputation of manufacturers

- **Clean label, organic, natural foods (CLF)**
  - Questions the assumption that TPF are safe—meeting government or manufacturer standards is no longer persuasive
  - Implies CLF are better for you than TPF
CLF may “tip*” to mainstream

- Small, but growing in US
- “Snowballing” across UK and Europe
- If clean label “tips”, it may become the “price of admission” for many consumers
- Major implications for both TPF & CLF
- 10 years hence, the shift may be enormous

*The Tipping Point, Gladwell, 2000
Why may CLF tip to mainstream?

- **West Coast** started it in U.S.
  - Well established by early 1990s

- **Boomers** are driving expansion
  - Historically spent small % of income on food
  - But food expenditures increasing for many
    - House is paid off, kids are grown
    - Disposable income increasing
    - Health concerns
Why may CLF tip to mainstream?

“Millenial Boomlet” is also driving it, for very different reasons

- Economic priorities altered by long recession
  - Food is an affordable luxury
- Grew up with wealth of worldwide information
  - Sound bites, media changes → Polarized communications
  - Food industry as big business…. Viewed with skepticism
  - European trends/climate on food, agriculture, climate
- School lunch changes: obesity concerns, local food
- Food psychology
  - Food is an expression of identity for some
  - CLF can be an expression of love, as baking was in past
Clean Label trend is different

- Not regulatory driven
- Potentially applicable to all food products
- Retailers are shifting the "share of real estate"
Traditional retail
Processed Foods area shrinking: traditional, clean label, organic merchandized together
Shifting retail approaches

Trader Joe’s
- 2007: “eliminated from private label”
  - Added trans fats
  - Artificial color
  - Artificial flavors
  - Preservatives
  - GMO ingredients

Publix GreenWise
- CLF Products
- Dedicated section
- Adding stores
  - Organic (3 levels)
  - All natural eliminates
    - Artificial colors
    - Artificial flavors
    - Preservatives
    - Artificial sweeteners
  - Earth friendly
    - Produced to minimize impact on environment
Whole Foods as trendsetter

Unacceptable Ingredients

- Artificial sweeteners
- HFCS
- Artificial colors
- Artificial flavors
- Flavor enhancers
- Hydrogenation
- May be moving towards labeling GMO’s
- Emulsiﬁers/many texture control ingredients
- Chemical improvers
- Preservatives (micro and oxidative)
- Irradiation
- And many more

- Expanding into lower income, smaller markets
Other Retailers as gatekeepers

- Walmart & Target demanding safer ingredients in HBA and household cleaners
- Walmart choosing 10 ingredients it will soon ban
- Not focused on CLF yet, but retailer as gatekeeper is gaining strength

Posted: 10/20/13 by George Brown
Implications: Traditional Processors
Protecting/increasing current volume

- Matching current product attributes is very difficult
- Current branding may reduce clean label believability
- Shelf life and micro issues require alternate formulation, process, or distribution strategies
- Need additional ingredient, process, package, distribution tools
Ingredients are key

Line speed, operation, distribution strategies are optimized for traditional approaches

Brands, pricing, margins, etc. optimized based on current operations

It may be easier for a new brand/company to deliver CLF due to current business expectations for TPF manufacturers
Implications: Clean Label Processors
Expanding market, Converting TPF consumers

- Mainstream consumers may see more quality issues
- Expanded distribution may stress quality, micro stability
- Reducing pricing may expand market
Labeling

- Commit to only use ingredients that are familiar/acceptable to consumers
  (parenthetical labeling for consumer education)

- Dominant ingredients are familiar, TPF ingredients allowed for minor ingredients

- All ingredients >2% are familiar, but TPF ingredients are allowed at <2%
Antimicrobials

- Eliminate need for antimicrobials via enhanced sanitation, &/or alternate process, package, distribution technologies

- Replace current with new fermentation based antimicrobials (i.e. cultured wheat flour)

Or develop “completely new, natural food formulations or ingredients (that offer) anti-mycotic properties”

(From Navigator quoting GWin website)
Strategies vs. Tactics

Line Speed/Reliability

- Change the process
  - For dough processing: specify alternate flour, adjust fermentation, alter work input via equipment, etc.
  - Optimize via robust experimental design techniques

- Accept lower line speeds, increased shrink, increased cost
- Or accept less uniformity in finished product
Merlin’s approach to clean labels

1. Clearly ID all issues
2. Thoroughly search for direct solutions
   - Web
   - Technical literature
   - Patent literature
   - Competitive marketplace
   - Retail & Restaurant
   - Analogous foods
   - Understand what is done and why

If these fail to provide a solution, then continue

3. ID relevant structures/functions/mechanisms
4. Question all assumptions
5. Find alternatives to achieve #3 (ingredients, processes, packaging, distribution)
6. Robust Experimental Design to optimize taste/cost/process/SL simultaneously
7. Confirm thoroughly
Example: Hamburger Buns
INGREDIENTS: UNBLEACHED WHEAT FLOUR, WATER, CANE SUGAR, NON-GMO SOYBEAN OIL, SEA SALT, YEAST, CULTURED WHEAT FLOUR, VINEGAR, CALCIUM SULFATE, WHEAT STARCH, ASCORBIC ACID.
Example: Buns

- Replace
  - HFCS $\rightarrow$ sugar, dextrose, fructose, corn syrup, & enzymes
  - Cal Propionate $\rightarrow$ Cultured wheat flour, whey, etc.
  - DATEM $\rightarrow$ eliminate or use enzymes, other ingredients

1. Define target (sensory, shelf life, processing, cost)
2. Survey market for approaches
3. Replace prohibited ingredients, evaluate
4. If necessary, define structure/function/mechanism
5. ID approaches to replace
6. Execute robust experimental design
7. Evaluate vs. target, then confirm solution
Example: Salad Dressing
Example: Salad Dressing

- Replace
  - Potassium sorbate → Cultured antimycotics, add “refrigerate after opening” to label
  - EDTA → Rosemary extract, tocopherols, etc., change oil source

1. Define target (sensory, shelf life, processing, cost)
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7. Evaluate vs. target, then confirm solution
Example: Yogurt

No preservatives

With K Sorbate
Example: Yogurt

- Eliminate Potassium Sorbate
- Major national brands (and others) use it
- Some newer brands do not

Issues
- Process differences to prevent mold inoculation
- Process reliability to assure every package mold free
- Impact on brand if system fails
- K Sorbate as a “fail-safe”
A stake in the sand

“Every cup is a commitment to delicious, preservative-free food.” (Chobani website)

Post recall:
- New partnership with Cornell
- New VP Quality, Food Safety, Regulatory Affairs
- Major ad campaign
Example: Refrigerated biscuits
Refrigerated biscuits: communication

Simply:
- No HFCS
- No artificial flavors
- No artificial colors
- 0g trans fat

Immaculate:
- No bleached flour
- No artificial preservatives
- No hydrogenated oil
- Non-GMO project verified
Example: Refrigerated biscuits

- Replace
  - Bleached flour → Unbleached (color)
  - Hydrogenated oil → Palm fruit oil
  - Artificial flavors → Eliminate or replace with natural

1. Define target (sensory, shelf life, processing, cost)
2. Survey market for approaches
3. Replace prohibited ingredients, evaluate
4. If necessary, define structure/function/mechanism
5. ID approaches to replace
6. Execute robust experimental design
7. Evaluate vs. target, then confirm solution
Recommendations

Suppliers: Ingredients, Process Equipment, Packaging, and Distribution

- Continue innovations to support clean label foods
- Look outside U.S. for approaches/solutions
- Be patient with slow implementation...the barriers to change are formidable
Recommendations

Traditional Food Processors

- Design products with “clean sheet of paper” approach and a long view to the future, as your emerging competitors are doing
- Deliver to the “spirit” of Clean Label, not just to the “letter”
- Use straightforward, unqualified communications with consumers via Brands, Packaging, Claims, Ingredient Declarations, & Media
Recommendations

Clean Label Processors

- Adapt traditional processor development techniques to expand market beyond your current consumers
  - Improve quality as seen by consumers
  - Reduce costs via line speeds and efficiencies rather than formula cost cutting
Recommendations

Trust and Gatekeeping

- Food manufacturers are best served by regaining the gatekeeper role
  - Not government
  - Not retailers

- Education plays a role
  - Web
  - Package Labels

- Committing to the simplest, long term messages will be most powerful and defensible
For further discussion, debate, information, please contact

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Communications

- Clean Label communications are increasing in intensity/polarity
- Web, social media play a significant role in spreading Clean Label message and Food Industry skepticism

- [http://www.youtube.com/watch?v=aMfSGt6rHos&feature=youtu.be](http://www.youtube.com/watch?v=aMfSGt6rHos&feature=youtu.be) 8mm views/2yrs
- [Http://www.youtube.com/watch?v=lUtnas5ScSE](http://www.youtube.com/watch?v=lUtnas5ScSE) 7mm views/1.5 mo
- [http://www.youtube.com/watch?v=nYZgWYZlAZU](http://www.youtube.com/watch?v=nYZgWYZlAZU) 18k views/1 mo