Major food industry trends

- Fresh
- Local vs. Organic
  - What is local to Vermont consumers? To Hartford? To Boston?
- Safe
- New and Different
- “Authentic”
- Raw- (fading fad?)
What are the benefits of…

- Fresh
- Local
- Organic
- Safe
- New and Different
- Authentic
- Raw

Caution -

- The economy determines willingness to embrace a “fad” or “trend”
- Make your business real, not a fad
Understand the Natural Product Worshipper

- The Missionaries
- Almost Every Sunday
- The C+E’s (Christmas and Easter’s)
- The Athiests

How “Big Guys” select their products and markets

- The intelligent shot gun
- Beholden to stockholder meeting projections
- Leverage existing technology
- Line extension
  - But does it make sense to the consumer?
Where “little guys” have advantage

- Story, personality and connection
- Quality
- Fast
- Passion

Types of new products

- Line extension
- Product improvement
- Reformulation
- Knock off
- New segment
Product and Process Development

- Structured, orderly and documented
- Finish one project and move on
- Multi-facings
- Know when you are in over your head

From Recipe to Formula

- “Ingrediation”
- Weigh it
- Document it
- Know when to throw it out
Product Stability

- Shelf-stable- 1 year+ for safety
  - Maybe less for organoleptic
- Fresh
  - Baked goods maybe one day
  - 7 to 10 most refrigerated
  - Thaw to sell option
- Frozen- 6 months for most

Shelf Stable Products (Canned)

- Formulated Acid
- Acidified
  - Scheduled Process
  - FDA FCE registration
- Low Acid
  - Retort
  - aW controlled
Shelf-life Analysis

- Misunderstood
- Microbiological vs. organoleptic
- Lab analysis is snapshot may or may not be representative
- DIY shelf life

Ingrediation

- Pre-chopped veggies
  - Fresh, canned and frozen processing issues
- IQF herbs
- Flavors and preservatives
- Starches and gums
- Use supplier resources- National Starch, Givaudan Access, Pacific Pectin
Development Process

- Refine general concept
  - Careful documentation of ingredients incl. weight, form, strength and brand
  - Subject to sensory eval/taste panel
  - Revise based upon sensory/taste panel
  - Avoid multivariate experimentation!
  - Resubmit for approval

Development process

- Scaling-up/batching up
  - Intrinsic knowledge of ingreds that do not behave in linear fashion
  - Flaws in measurement methodology multiplied
    - .9G inaccuracy in 1# batch= 900g per 1000#
    - Test batch size increases incrementally

- Scheduled process approval
Scheduled Process

- When- Acid or acidified, low-acid or aW controlled
- Cornell
  - Dr. Olga Padilla-Zakour
  - Contact Elizabeth Keller esk15@cornell.edu
- Recipe
- Sample

Food Safety the Four Deadly Sins

- Slovenliness
  - Dirt-the farmer’s friend, the enemy of safe food
- Complacency
  - “I've been doing it this way for…..”
- Carelessness
  - “I think I added the sorbate, didn’t I?”
- Laziness
  - “The pH has always been good on this, I’ll skip it.”
    - Make no assumptions…..peanut butter, pistachios, etc.
Processing Options

- Shared-use or community kitchens
- Underutilized restaurants/bakeries
- Church kitchens, fire halls, schools
- Co-packers
- Home kitchen
- Own processing facility

Food Safety

- Process review- Cornell, UMaine
- Hurdle technology
- ServSafe
- BPCS
Food safety

GMP’s
- GAP’s
- HACCP
- Third party QA audits
  - Pushback
  It’s not coming, it’s here
- And here to stay
  - i.e. can you say China?

Packaging

- Make sure packaging matches shelving norms
- Weight
- Cost
- Availability
- Image
- First and foremost is to protect the contents
The Regulatory Environment

…or is it the Swamp?

Agencies

- USDA
- Connecticut Agencies
  - Consumer Protection
  - Public health
  - State and Local Boards
- FDA
FDA Requirements – www.fda.gov

- Food Facility Registration
  - Now a reality
- Traceability
- Acidified Foods (FCE)

Labeling
Elements of a Label- Required

- Brand or company name
- Product name
  - Fanciful- Vermonster, Chunky Monkey
  - Standard identity- “Crème Filled Chocolate Wafer Cookies”
- Weight (volume) Statement
- Ingredient Statement
- Statement of Responsibility

Elements of a Label- Optional

- Bar Code (UPC)
  - www.uc-council.org
  - “barcodes-R-us”
- Nutrition Facts
  - Small producer exemption at fda.gov
  - Less than 10 FTE or 100,000 units
Labeling

- Appropriate investment for target market
- OK to step and scale
- Time and expense heavy
- Flex vs. digital
- Educational
- Regulatory
- Marketing functions

Designers Design, Printers Print

- Bad things happen to good people who ignore this rule!
- Know who owns the artwork
- DIY’ers beware!
Label Functions

- Educational

The Label as a Marketing Tool

- Nutrition Facts
- Ingredients
- “The story” (Ben & Jerry’s)
- Presents visual image of your company and product
Health claims

- Most specific health claims prohibited
- Consult food lawyer
- *May* reference literature to cite historical uses
- Check www.fda.gov

On-line resources

- [http://www.vermontfoodventurecenter.org](http://www.vermontfoodventurecenter.org) (in progress)
- brian@vermontfoodventurecenter.org
- [http://www.nysaes.cornell.edu/necfe/](http://www.nysaes.cornell.edu/necfe/)
- [www.umass.edu/nefe](http://www.umass.edu/nefe)