Food Safety & Product Labeling

Issues For Small Businesses

U.S.U. Extension Food Quality & Entrepreneurship
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Value-Added Foods

- Local, organic, vine-ripened, or specialty crops
- "Gourmet" foods
  - Jams, jellies, preserves
  - Pickled vegetables
  - Hot sauces, salsas, tapenades
  - Herbed oils and vinegars
- Must meet safety and labeling requirements of certifying agency

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Food Safety

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Processing Options:
Contract Packaging – "Co-Packers"

- Certified food production facilities
  - Will package your product in their down-time
- Pro: Can sell to restaurants, grocers, distributors
- Pro: Facility maintains FDA/USDA certification, not you
- Con: Co-Packers typically have minimum runs that are larger than small businesses need

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Processing Options:
Certified Food Establishments

- Commercial kitchen, certified by a state or local health department
  - Incubator kitchens, restaurant kitchens
- Pro: Can sell to restaurants, grocers, distributors
- Pro: You control your own production rate
- Con: Availability often limited and space is difficult to find

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Processing Options:
Home Food Production

- Home kitchen, certified by state agency
- Program regulations and availability vary by state
- Pro: Less expensive than renting commercial kitchen space
- Con: Limited types of food can be prepared
- Con: Cannot sell to restaurants or distributors

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Processing Options:
States allowing Home Production

- Arizona: www.azdhs.gov/phs/oeh
- California: takes effect Jan. 2013
- Colorado: www.cofarmtomarket.com
- New Mexico: www.nmenv.state.nm.us
- Oregon: www.oregon.gov/oda/fsd
- Utah: ag.utah.gov/divisions/regulatory
- Washington: agr.wa.gov/FoodAnimal
- Wyoming: no registration required

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Safety Issues to Consider

- How will you clean & sanitize?
- How will you prepare or cook your product to minimize safety risks?
- How will you package/protect your product?
- How will you store & display your product?

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Safety Definitions

- Clean: Free of visible dirt or debris
  - Applies to whole, unprocessed foods
- Sanitary: Free of disease-causing bacteria
  - Applies to processed foods & food contact surfaces
  - Spoilage bacteria are still present
- Sterile: Free of all viable bacteria
  - Commercial sterility = 99.99%
  - 1 can in 10,000 will contain viable bacteria

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Safety Issues
Kitchen Sanitation

- Sanitize equipment and surfaces at start of production
  - 1 Tablespoon unscented bleach maximum per 1 gallon water (200 ppm)
  - Check sanitizer with test strips

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Safety Issues
Kitchen Sanitation

- Sanitize equipment and surfaces at start of production
  - 1 tbsp unscented bleach maximum per 1 gallon water (200 ppm)
  - Check sanitizer with test strips
- Wipe up spills, sanitize during production
  - Check / refresh sanitizer every hour
- Clean and sanitize equipment and surfaces at end of production

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Safety Issues
Kitchen Sanitation

- Commercial kitchens – 3 compartment sink
  - Scrape, pre-rinse station
  - Wash, rinse & sanitize sinks
  - Air dry
- Modification for home kitchens
  - Scrape, wipe into garbage can
  - Wash & rinse in kitchen sink
  - Sanitize in separate tub or container
  - Air dry

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Limiting Bacterial Growth
Water Activity (Aw)

- Bacteria must have water available to multiply
- Aw is a measure of how much water is available, not how much is present
- Add sugar or salt to lower Aw
  - Jams & jellies, candies, dressings
- Remove water to lower Aw
  - Dried fruits, jerky

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Water Activity

Amount of water that is "available" to microbes

Water Activity (A_w)	Examples of foods in this range
1.00 – 0.95	Fresh produce & meat; canned produce & meat; milk; juice; bread
0.95 – 0.91	Cured meats (ham); semisoft & some hard cheeses (Swiss, young cheddar, provolone); moist cakes
0.91 – 0.87	Hard or aged cheese; sponge cakes; margarine; most fermented sausage
0.87 – 0.80	Syrup; flour; fruit juice concentrate; high-sugar cakes
0.80 – 0.75	Jam & marmalade; marshmallows; beef jerky
0.75 – 0.65	Soy sauce; molasses; jelly; nuts; oats; peanut butter;
0.65 – 0.60	Honey; caramels; dried fruit; toffee
0.50 or below	Spices; crackers; cookies; pasta; powdered milk

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Limiting Bacterial Growth
Acidity (pH)

- Acid prevents germination of *Clostridium botulinum* spores (the bacteria that causes botulism poisoning)
- Naturally acidic foods can be canned without FDA certification
- Canning acidified or low acid foods can only be done at an FDA certified facility

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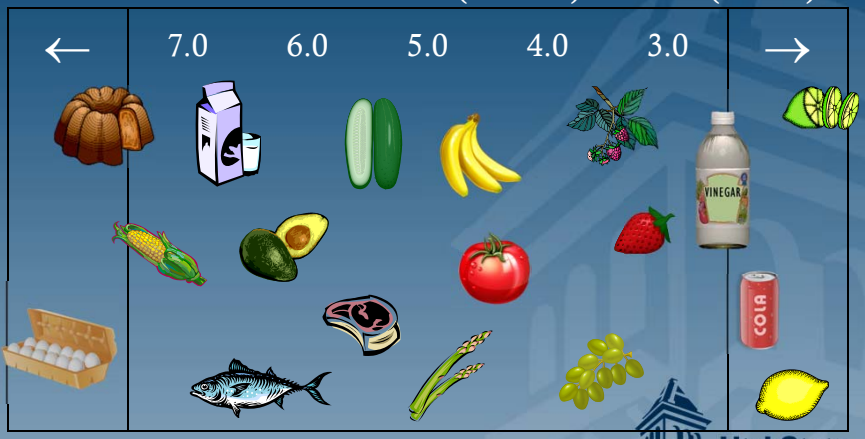
pH

Most foods are between 7.0 (neutral) and 3.0 (acidic)



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Food Safety Resources

- FDA Food Code
  Search "FDA food code" at www.fda.gov
- State Extension Services
- U.S.U. Extension Food Quality & Entrepreneurship
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Product Labeling

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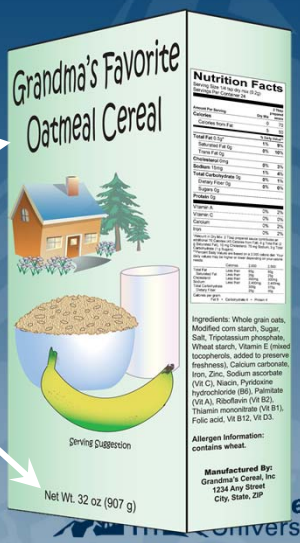
Required Label Components

Primary Display Panel

Statement of Identity

Net weight statement



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Statement of Identity

- Many foods have a legally established name that must be used [CFR21 §101.3]

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Title 21 Lists Standards of Identity for:

§ 131 Milk & cream
§ 133 Cheese
§ 135 Frozen desserts
§ 136 Bakery products
§ 137 Cereal flours
§ 139 Macaroni & noodles
§ 145 Canned fruit
§ 146 Canned fruit juice
§ 150 Jellies & preserves
§ 152 Fruit Pies
§ 155 Canned vegetables
§ 156 Vegetable juices
§ 158 Frozen vegetables
§ 160 Eggs & egg products
§ 161 Fish & shellfish
§ 163 Cacao products
§ 164 Tree nuts & peanuts
§ 165 Beverages
§ 166 Margarine
§ 168 Sweeteners & syrups
§ 169 Dressings & flavorings

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Statement of Identity

- Many foods have a legally established name that must be used [CFR21 §101.3]
- All others must use "common or usual name"
- Other requirements include:
  - Form of food (e.g. sliced, cubed, crushed) if it's not visible through the package
  - "___% Juice" for any drink showing fruit or vegetables on the label

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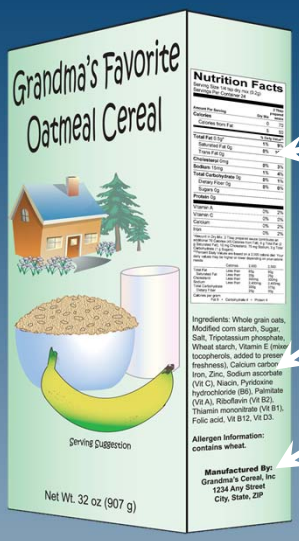
Required Label Components

Information Panel



- Nutrition Facts panel
- Ingredient statement
- Producer name & address

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Ingredient Statement

- Ingredients must be listed in order by weight
- Must list function of any preservatives
  - "Ascorbic Acid to promote color retention"
- "Spices", "Natural Flavor" or "Artificial Flavor" can be grouped to save space
  - *Except:* onion/garlic/celery items, salt, and MSG
- Certified colors must be specified
  - "Red 40" or "FD&C Red 40"

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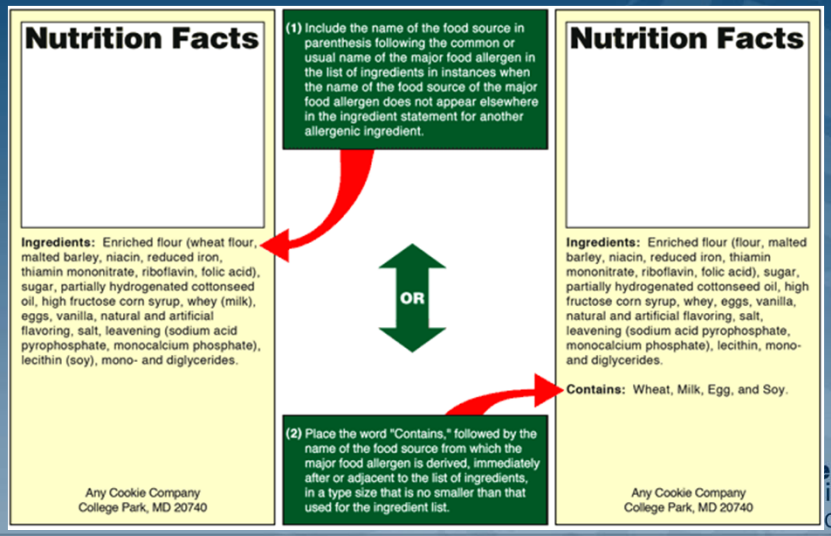
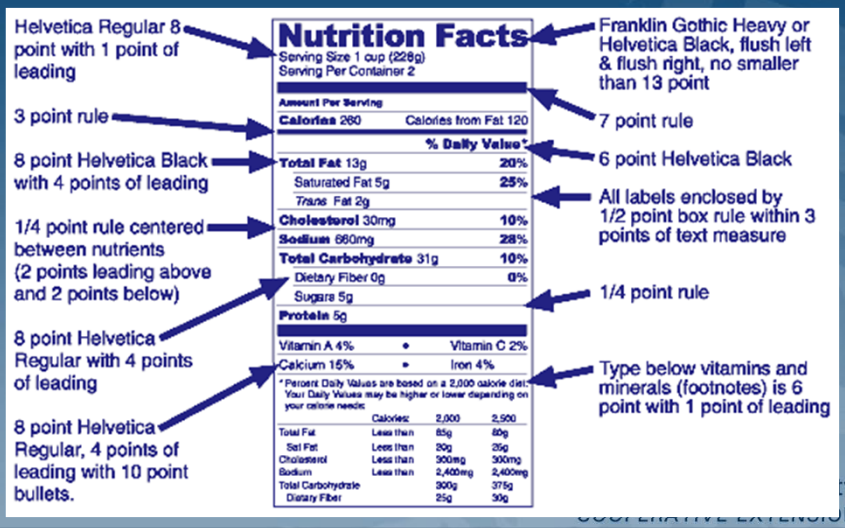
Allergen Statement

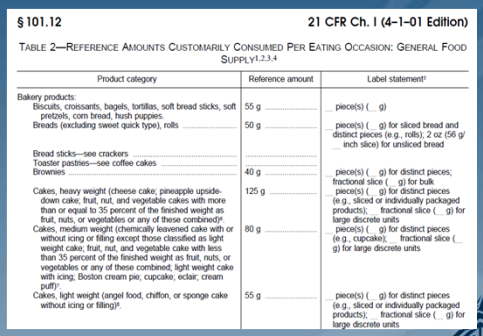


Nutrition Facts Panel



Nutrition Facts Panel

- Serving size must be based on "Reference Amount Customarily Consumed"



§ 101.12 21 CFR Ch. I (4–1–01 Edition)

TABLE 2—REFERENCE AMOUNTS CUSTOMARILY CONSUMED PER EATING OCCASION: GENERAL FOOD SUPPLY[1,2,3,4]

Product category	Reference amount	Label statement[5]
Bakery products:		
Biscuits, croissants, bagels, tortillas, soft bread sticks, soft pretzels, corn bread, hush puppies	55 g	___ piece(s) (___ g)
Breads (excluding sweet quick type), rolls	50 g	___ piece(s) (___ g) for sliced bread and distinct pieces (e.g., rolls); 2 oz (56 g/ ___ inch slice) for unsliced bread
Bread sticks—see crackers		
Toaster pastries—see coffee cakes		
Brownies	40 g	___ piece(s) (___ g) for distinct pieces; ___ fractional slice (___ g) for bulk
Cakes, heavy weight (cheese cake; pineapple upside-down cake, fruit, nut, and vegetable cakes with more than or equal to 35 percent of the finished weight as fruit, nuts, or vegetables or any of these combined)[6]	125 g	___ piece(s) (___ g) for distinct pieces (e.g., sliced or individually packaged products); ___ fractional slice (___ g) for large discrete units
Cakes, medium weight (chemically leavened cake with or without icing or filling except those classified as light weight cake; fruit, nut, and vegetable cake with less than 35 percent of the finished weight as fruit, nuts, or vegetables or any of these combined; light weight cake with icing; Boston cream pie; cupcake; eclair; cream puff)[7]	80 g	___ piece(s) (___ g) for distinct pieces (e.g., cupcake); ___ fractional slice (___ g) for large discrete units
Cakes, light weight (angel food, chiffon, or sponge cake without icing or filling)[8]	55 g	___ piece(s) (___ g) for distinct pieces (e.g., sliced or individually packaged products); ___ fractional slice (___ g) for large discrete units

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Small Business Exemption

SALES IN FOOD	TOTAL SALES (FOOD & NON-FOOD)	STATUS
$50,000 or less	$500,000 or less	EXEMPT
$50,000 or less	$500,001 or more	EXEMPT
$50,001 or more	$500,000 or less	EXEMPT
$50,001 or more	$500,001 or more	NOT EXEMPT

- Direct-to-consumer sales of $50,000 or less annually
- Processors with fewer than 100 employees
- Must file for exemption with FDA
- NO nutrition-related claims can be made

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Health Claims

- Approved health claims [CFR21 §101.72-83]
  - General scientific consensus has been reached
- Qualified health claims
  - No scientific consensus, but some evidence
  - FDA gives conditional approval individually
- Specific wording must be used for both types of health claims

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Nutrient Content Claims

- Content Claims [21CFR§101.60-62]
  - "Free", "Low", "Reduced/Less"
- Relative Claims [21CFR§101.13(j)]
  - "Light", "Reduced" or "Added", "More" or "Less"
- Other Claims
  - "High", "Rich In" or "Excellent Source of"
  - "Good Source", "Contains" or "Provides"
  - "Lean" and "Extra Lean"
  - "Modified"
  - "Fiber" claims

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Food Labeling Resources

- "Guidance for Industry: A Food Labeling Guide"
  Search "Food Labeling Guide" at www.fda.gov
- State Governments (usually the Department of Agriculture)
- U.S.U. Extension Food Quality & Entrepreneurship
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