Starting a Value-Added Processed Food Business in Virginia

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Director, Food Innovations Program

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Before Starting Business

- Check Zoning Laws!
  - May not be able to conduct business as you wish
  - Make sure you are zoned for business activities
  - Some towns/cities/counties do not allow home-based businesses

2019 Trends

- Going local/artisanal – great for specialty foods! (Replacing organic importance in some markets.)
- Green/Eco-friendly
- Alternate Proteins
- Gluten-free
- Fermented/Brined/Pickled Foods
- Healthy Definition Change
  - Low Calorie/Heart Healthy
  - Fresh
  - Simple Ingredients
  - Humane/Sustainable
- On-the-go Healthy
- Produce hybrids
- No or low alcohol drinks

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Plan Your Business

- Develop a business plan
  - Needed for funding
- Write a marketing plan
  - Where to sell
  - How to advertise
  - Who to target
- Check on your competition
- Consider the current trends

Getting Help: Business Resources

- VA Department of Business Assistance
  - Mission: promote economic growth by helping Virginia businesses prosper
    - Accessing capital
    - Small business counseling
    - Workforce training
    - Business problem solving
  - www.dba.virginia.gov
  - **www.business.virginia.gov**

Getting Help: Business Resources

- SCORE (www.score.org)
  - Nonprofit association provides **NO-COST** counseling to help start-up a new business, secure financing or operate, manage and/or expand an existing business
  - Utilize retire business professionals
  - 10 SCORE units in Virginia/1 in District of Columbia

SCORE™
FOR THE LIFE OF YOUR BUSINESS

Getting Help: Business Resources

- Virginia Small Business Development Centers (SBDC)Network

  www.virginiasbdc.org

  - Provides professional business counseling, training and information resources to help grow and strengthen Virginia businesses
  - 29 locations across Virginia

Getting Help: Business Resources

- Economic Development
  - Local Offices
  - Virginia Cooperative Extension
    - Conaway Haskins
    - Director, Virginia Community Economic Network

      conaway.haskins@vt.edu

      804-527-4247
  - Virginia Department of Agriculture and Consumer Services
    - Stephen Versen

      AFID Fund Coordinator

      804.786.6911

      stephen.versen@vdacs.virginia.gov

Product Development Success

- Developing product that fits your mission – be comfortable with your product!
- Keeping focus on products
- Performing market analysis – need not to be fancy
  - Size of market
  - Growth rate of market
  - Barriers to entry into and exit from market
  - Competitors
  - Avoid "me too" concept
- Understanding demographic of your consumer
- Providing specific consumer benefit
- Fulfilling customer expectations

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Product Development Stages

- Idea Stage
- Development Stage
- Consumer Testing Stage
- Packaging Stage
- Shelf-life Testing Stage
- Final Production Stage
- Test Marketing Stage
- Commercialization Stage

Product Development Stages

- Idea Stage – formulation of business plan
  - Type of Product
  - Target Audience
  - Competition
  - Demand
  - Price of Product
  - Cost of Manufacturing of Product (facility, utilities, ingredients, packaging, licensing and governmental fees)
  - Other Indirect Costs (advertising, phones, postage, transportation, insurance)

Time Effort vs. Outcome for Creation

- Short development time – usually less than 6 months
  - Quick to market, but easily duplicated
- Intermediate Term (1 year)
  - Difficult to duplicate
- Long Term / Applied Research (2-5 yrs.)
  - Develop new technology
  - Patent or strong trade secret
  - Substantially financial burden
  - Possible substantial pay-out with duplication almost impossible

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Product Development Stages

- Development Stage/Tasting Stage – can be long stage
  - Creation of the new product
  - Recipe standardization
  - Address Issues:
    - Safety
    - Quality
    - Regulatory
    - Packaging
    - Shelf-life

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Recipe Standardization

- Multiplying ingredients to make larger batch may not work
  - Convert all ingredients to weight measurement
    - Weigh on your own - best
    - www.gourmetsleuth.com has calculator
  - Multiply to get desired batch size
  - Experimental additions or subtractions may be necessary
  - Jams and jellies notoriously do not "scale-up"
- Experiment with cost cutting measures *before* standardization if possible

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Recipe Standardization

- Understand that brand substitution of ingredients may greatly affect product including flavor, shelf-life stability and safety parameters
- After standardizing recipe, make product multiple times to determine repeatability
- Streamline work station to develop most effective way of producing product using most effective equipment
- Take *meticulous* notes at every step

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Food Safety Considerations

- 31 major harmful bacteria
- 9.4 million episodes of foodborne illness
- 55,961 hospitalization
- 1,351 deaths

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Microbiological Food Spoilage:

- Microorganisms can get onto a food product from anywhere in the environment…
  - People, animals, dirt, insects, other surfaces

Spoilage microorganism: cause food to spoil
NOT pathogenic (cause illness)!!

Pathogens: make you sick

Principles of Controlling Bacteria

- Control bacteria growth (Keep it from growing)
  - Inhibit growth of bacteria
  - Prevent or reduce number of bacteria
- Eliminate bacteria (Kill it)

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Safety Considerations: What Bacteria Need to Grow

- **F**ood
- **A**cidity
- **T**emperature
- **T**ime
- **O**xygen
- **M**oisture

FIGHT BAC!

Safety Considerations: What Bacteria Need to Grow

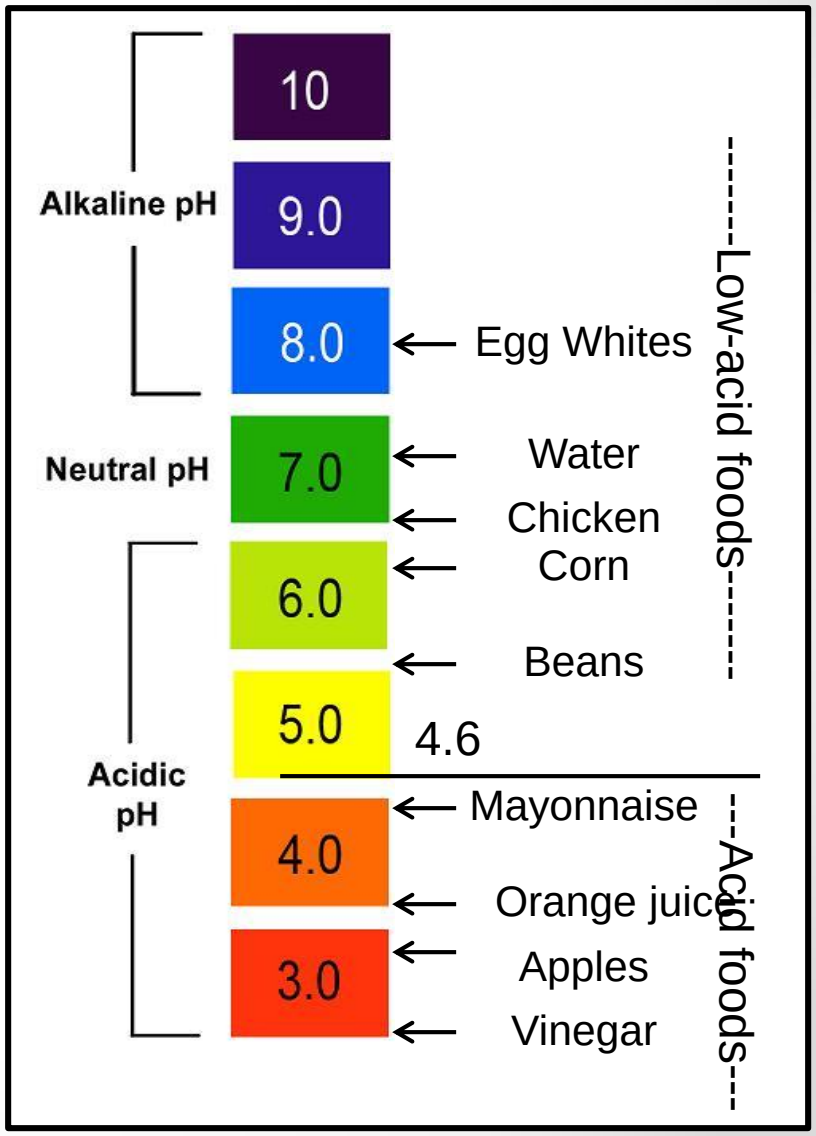
- Food

❖ Acidity

pH= amount of acid

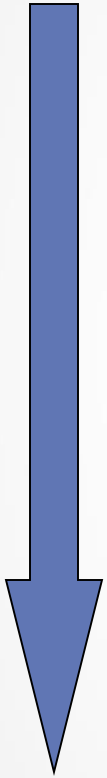
Low acid foods = pH > 4.6

- Time
- Temperature
- Oxygen
- Moisture



Bacteria Inhibited by pH

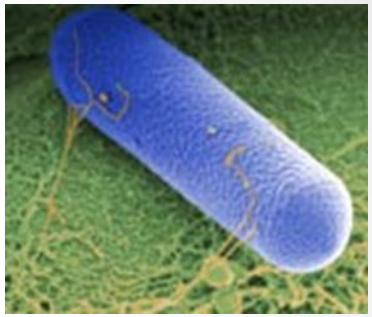
Most Inhibited



Least Inhibited

	Min	Max	Optimum
Bacteria (Pathogenic)	4.5	>9.0	>7.0
Bacteria (Spoilage)	3.8	>9.0	>7.0
Yeast	1.5-3.5	8	4.5-6.8
Mold	1.5-3.5	11	4.5-6.8

Why Acidity is the most important factor when it comes to canning!



- ***Clostridium botulinum***
  - Spore-former: spores in the environment
    - Can't make you sick
    - Infant botulism
  - ONLY under anaerobic conditions (commonly created during preservation), spores germinate (grow) into vegetative cells
  - Vegetative cells produce toxin that cause illness
  - Spores will not germinate in acid environment with pH below 4.6

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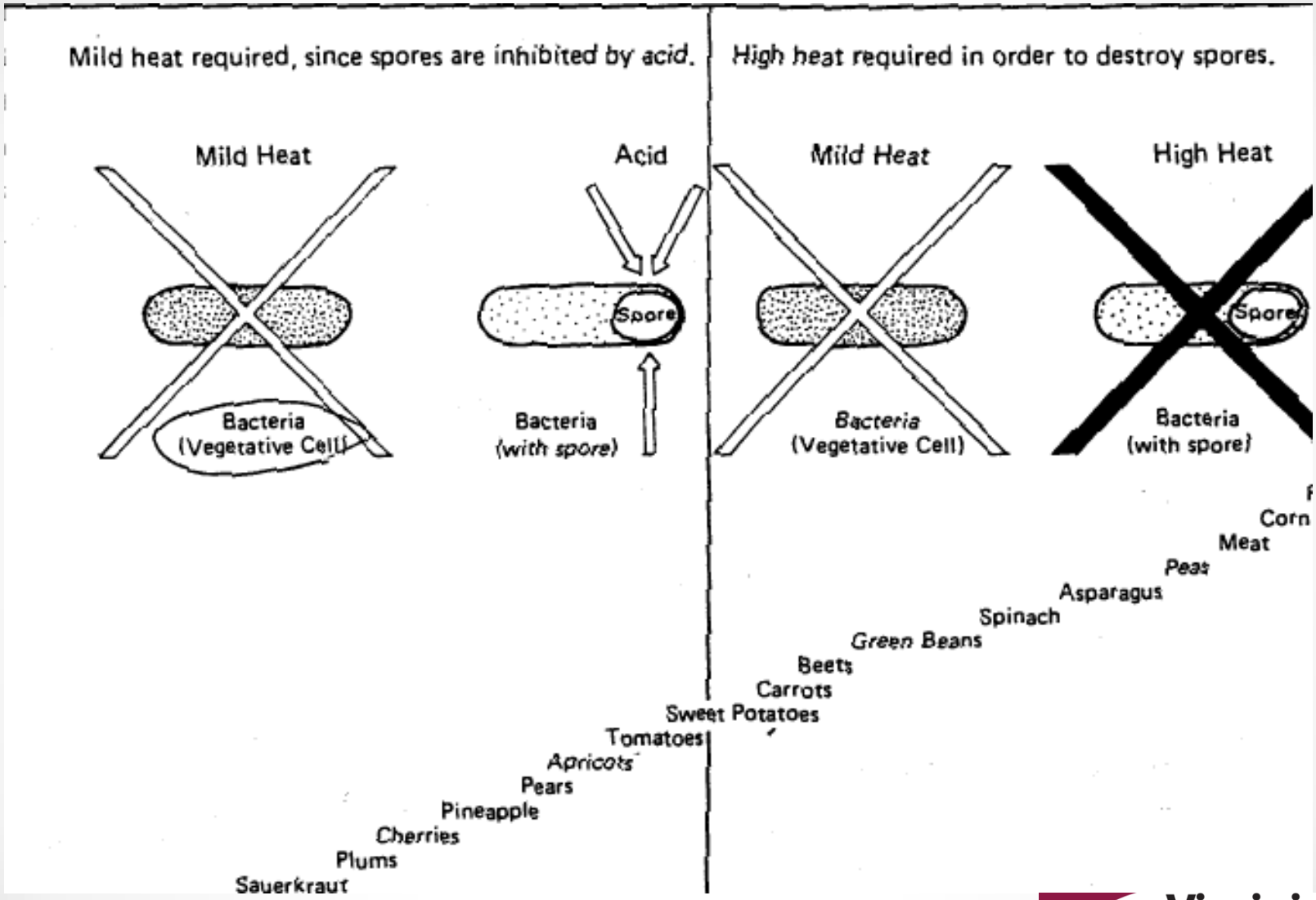

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Acid Food

High-acid food + high-acid food = pH remains < 4.6

Low-acid food

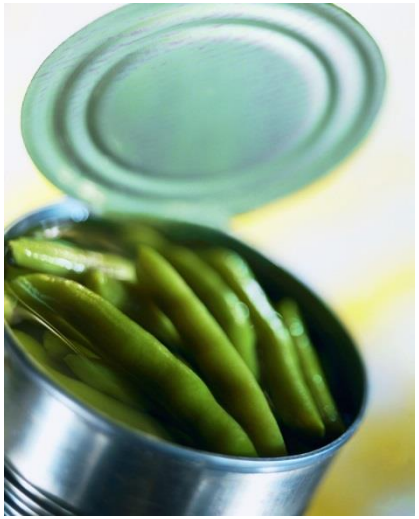
Low-acid food + other foods = pH remain > 4.6

Acidified food

Low acid food + enough high-acid food = pH < 4.6

Considerations for Food Product and Regulation Implication

- **I want to sell low-acid foods!**
  - **Cannot sell low-acid canned foods.**
  - **Can sell frozen or refrigerated low-acid foods.**
  - **Can sell acidified foods**



NO!

High Acid Foods (pH < 4.5)

- Apples
- Oranges
- Peaches
- Strawberries
- Pears
- Sauerkraut, pickles
- Blueberries
- Tomatoes
- Rhubarb
- Lemons
- Grapefruit
- Pineapple
- Apricots
- Cherries
- Figs
- Plums
- Raspberries

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Low Acid Foods (pH > 4.5)

- Meat, fish
- Carrots
- Green beans
- Potatoes
- Peas
- Cabbage
- Corn
- Squash
- Pumpkin
- Okra
- Turnips
- Snap Beans
- Sweet potatoes
- Onions
- Oysters
- Ripe olives

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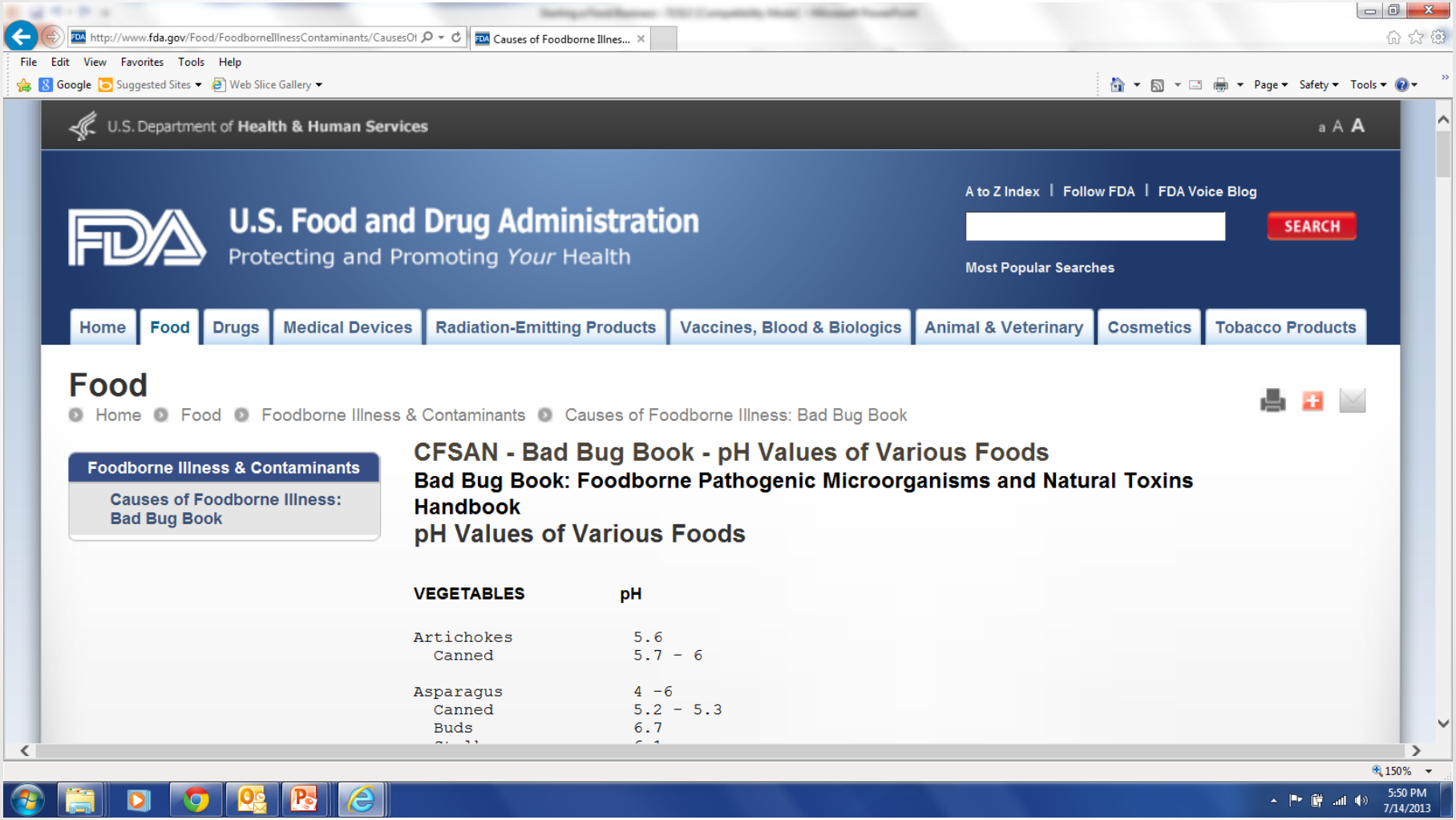
Acidified Foods: What are they are what are they not?

- **L**ow-acid foods to which acid(s) or acid food(s) are added
- Water activity (aw) greater than 0.85
- Finished equilibrium (final) pH of 4.6 or below
- Not Acidified Foods
  - Acid foods (foods made with mostly acidic ingredients)
  - Fermented foods (will check if fermentation process is adequate)
  - Repacked acidified or fermented foods
  - Carbonated beverages
  - Jams, jellies or preserves
  - Product with a water activity below 0.85
  - Refrigerated or frozen foods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Foodborne Illness & Contaminants
Causes of Foodborne Illness: Bad Bug Book
CFSAN - Bad Bug Book - pH Values of Various Foods
Bad Bug Book: Foodborne Pathogenic Microorganisms and Natural Toxins Handbook
pH Values of Various Foods
VEGETABLES pH
Artichokes 5.6
Canned 5.7 - 6
Asparagus 4 -6
Canned 5.2 - 5.3
Buds 6.7
150%
5:50 PM
7/14/2013

Acidification Procedures – Acid Types

- Inorganic Acids (Phosphoric Acid/Hydrochloric Acid
  - Phosphoric Acid
  - Hydrochloric Acid
  - Lower pH more dramatically
  - Impart little taste
  - Label statement may not be desirable
- Organic Acids (Vinegar, Lemon Juice)
  - Considered natural
  - Lower pH less dramatically
  - Impart flavor

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Acidification Critical Control Points

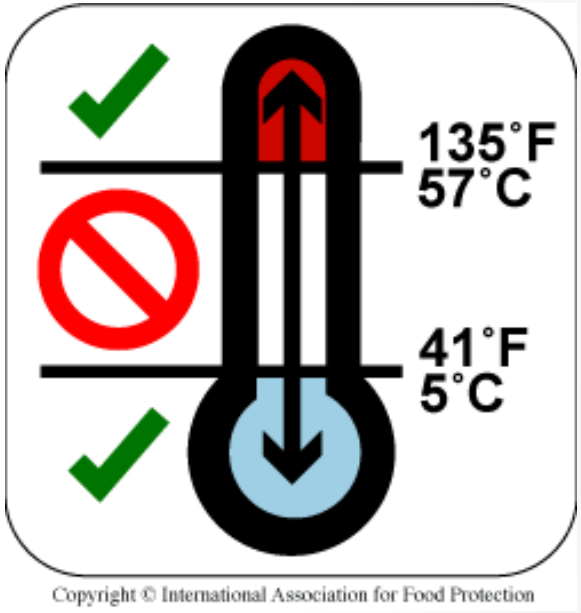
1. Every portion of food must be acidified in the same proportions
2. Monitor acidification by pH measurement before and after equilibrium
3. Monitor the scheduled thermal process
4. Control container handling and raw ingredient inputs

Fermentation

- 3 weeks or more for process
- Process control is important
- Process must be either proven fermentation method or monitored (pH)
- Salt content important; do not deviate from recipe
  - Canning salt recommended
  - Table salt has anti-caking additives that make brine cloudy
  - Iodized salt can darken some vegetables
  - Flake salts vary in density and hard to measure
- Container choice important
  - Old crocks may contain lead in paint
  - Metal will corrode under salt/acid
- Control fermentation temperature
-

What Bacteria Need to Grow

- **F**ood
- **A**cidity
- **T**emperature
  - Danger zone = 41°F to 135°F
- **T**ime
  - No more than four hours in danger zone
- **O**xygen
- **M**oisture



Temperature Effect on Growth Rate

- Grow fastest at their optimum temperatures (around body temperature)
- Even small temperature decreases can greatly slow growth
- Streamline production to minimize food being held in temperature danger zone (41-135°F)

Refrigeration

- Most biological systems run slower in cooler temperatures
  - Microorganism grow slower or cease growth (but not kill!)
    - Slow spoilage
  - Enzyme Activity
    - Slows browning
    - Slows enzymatic breakdown of tissue (mushiness)
- Recommended Storage Temperature
  - 40° F or lower to slow bacterial growth and maintain quality
  - Freezing occurs at 32° F
  - Adjust refrigerator between 32° F and 40° F to prevent unwanted freezing

Water Loss Sensitivity

- **Low**

  Apples, Onions, Cucumbers, Potatoes, Eggplant, Pumpkins, Garlic Squash, Winter Kiwi, Melons, Casabas, Crenshaw melons, Honeydews

- **Average**

  Asparagus, Pears, Avocados, Peas, Bananas, English Beans, Brussel Sprouts, Peppers, Cabbage, Rhubarb, Carrots, Summer Squash, Cauliflower, Sweet Potatoes, Celery, Tomatoes, Topped Corn, Sweet Beets, Cranberries, Carrots, Endive, Escarole, Rutabagas, Leeks, Parsnips, Lettuce, Radishes, Nectarines, Turnips. Okra, Watermelon

- **High**

  Apricots, Cantaloupe, Blackberries, Cherries, Broccoli, Greens, Grapes, Beets, Kohlrabi, Mushrooms, Green Onions, Peaches, Parsley, Raspberries, Strawberries, Spinach, Chard

Freezing

- Great way to extend shelf life of food
- Nutrition is unaffected
- Faster freezing is better for food texture
  - Faster Freezing = Smaller Ice Crystals
  - Smaller Ice Crystals = Less Food Damage
- Lower storage temperature = longer shelf-life

Freezing: Fruits

- Can be frozen:
  - No Sugar- small berries (blueberries, raspberries)
  - Dry sugar- fruits that readily produce juice (strawberries, peaches)
  - Sugar syrup- fruit that forms juice slowly (pineapples, apples)
- Cover with liquid and leave 1-2 inches of headspace

Foods That Do Not Freeze Well: Spices

- Pepper , cloves, garlic, green pepper, imitation vanilla and some herbs tend to get strong and bitter.
- Onion and paprika change flavor during freezing.
- Celery seasonings become stronger.
- Curry develop a musty off-flavor.
- Salt loses flavor and has the tendency to increase rancidity of any item containing fat.
- When using seasonings and spices, season lightly before freezing, and add additional seasonings when reheating or serving.
-

What Bacteria Need to Grow

- **F**ood
- **A**cidity
- **T**emperature
- **T**ime
- **Oxygen**
- **M**oisture

- Different microorganisms need different oxygen levels in order to grow
  - Aerobic: Need oxygen
    Ex: mold and spoilage
  - Anaerobic: Need complete absence of oxygen
    Ex: *Clostridium botulinum* (botulism)
  - Facultative anaerobic (can grow with or without oxygen):
    Ex: Bacteria that cause foodborne illness

Botulism: Not Just for Canned Foods Anymore

- Foil-wrapped baked potatoes left to cool at room temperature
- Dry-cured sausage improperly cured
- Garlic-in-oil mixtures, herb / oil mixes
- Canned quick breads

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What Bacteria Need to Grow

- **F**ood
- **A**cidity
- **T**emperature
- **T**ime
- **O**xygen
- **M**oisture

Water Activity (a_W)

- Available water for microorganisms to grow, not total moisture
- Bacteria like more moisture than fungi

- Water can be bound or made unavailable – lowers water activity
  - Sugar
  - Salt – 6x more effective than sugar
- Dehydration
- Water reduction by cooking procedures

Understanding Your Food

- Food
- Acidity
- Time
- Temperature
- Oxygen

❖**Moisture**

Water Activity (Aw)

The amount of water available to microorganisms to use for growth and survival.

If water activity is used to control microbial growth, the value should be 0.85 or lower.

Common ways to lower water activity:

- Salt
- **Sugar**
- **Dehydration**
- Boiling off water

Drying

- Drying preserves food by removing the moisture (80-95%) to prevent microbial growth
- Methods
  - Oven (140°F with door ajar and fan blowing air across open door)
  - Food Dehydrator (recommended)
    - Small electrical appliance (limited capacity)
    - Heat (140°F) and air is applied to the food

Types of Dehydrators

- Horizontal Air Flow
  - Heating element and fan located on side
  - Reduces flavor mixing
  - All trays receive equal heat penetration
  - Juices and liquids do not drip into heating unit

- Vertical Air Flow
  - Heating element and fan located at base of unit
  - Flavors can mix
  - Liquids drip into heating unit making difficult to clean

Understanding Your Food

- How are you supposed to know? Get your food tested!
  - pH
  - Water activity
  - Classification and regulations
  - Scheduled process

Food Innovations Program

www.fst.vt.edu

www.ext.vt.edu/topics/food-health/food-innovations

- Provide testing of food products for safety and quality
- Act as process authority for acidified foods (accepted by FDA, USDA, VDH and VDACS)
- Conduct Better Process Control School workshops required for acidified food producers
- Provide guidance on reformulation and product design
- Provide technical guidance on safety and regulatory issues governing food products
- Assist with compliance with regulatory agencies
- Nutritional Label Services

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Food Innovations Program Service We Do Not Provide

- Process Authority Evaluation for low-acid foods
- Nutritional Testing
- Allergen Testing (including Gluten)
- Complete Product Development – cannot develop recipes or complete processes
  - Must go through Department of Food Science and Technology as field trial
  - Must have faculty sign-off
  - Must go through university intellectual property agreement

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Use the search below to search the site or find your local unit office.

Search GO

Agriculture | Community & Leadership | Natural Resources | Family | **Food & Health** | Lawn & Garden | 4-H / Youth

The Food Innovations Program goal is to provide the assistance needed for Virginia's food processing industry to produce high quality, safe, and innovative food products. We strive to increase the awareness of Virginia's food producers to matters of food safety, pertinent food regulations, and general concerns associated with starting a food business.

What's New | Resources | FAQs | Additional Links | Academics | Facilities

FDA establishes definition for "gluten free" foods.

The FDA has determined that a food may be labeled as "gluten free" if it contains 20 parts per million (ppm) or less of the wheat protein gluten. For those who suffer from Celiac's disease, gluten can trigger the body to attack the lining of the small intestine, causing issues with absorption of nutrients which can lead to serious health problems. Up until this ruling, there was no defined limit as to how much gluten may be present in a food in order to claim it is gluten free. This final ruling will allow for standardization across the food industry concerning gluten-free labeling and allow consumers to purchase gluten-free foods with more confidence of what they are buying. Read the FDA's press release.

Share

Ask a Question

Need help finding the information you're looking for? **Submit your questions here.**

Request Evaluation

The Food Innovations Program offers food testing services to help ensure food safety and regulatory compliance for new food products entering the market. In addition, we can provide nutrition facts panels for your product's label.

Request an evaluation

Related Topics

» Food Safety
» Nutrition & Wellness
» Home Food Preservation

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Need help? Find your city or county's local office

Publications and Resources

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Explore more Extension resources:

eXtension America's Research-based Learning Network®

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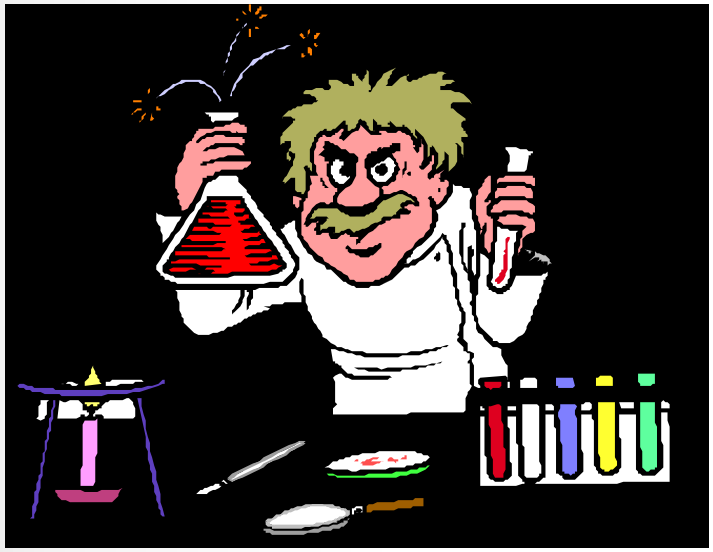
Elimination Methods



- Chemicals
- Temperature
  - Heat
    - Pasteurization still most effective/simplest means for elimination of bacteria in raw milk
    - **Canning**
  - Cold
    - Refrigeration
    - Freezing
- Irradiation

Canning = Preservation by Heat

- Destroys microorganisms
- Inactivates enzymes
- Seals container during the process to prevent recontamination

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Process Authority

- Based on regulations, a person or institution with expert knowledge and experience to make determinations about the safety of a food process and formulation.
- Required to maintain product confidentiality
- Determines safety of processing parameters based on food product characteristics

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Time/Temperature Dependency When Processing Using Hot Water Canner

- Food
- Acid, salt, sugar, starch, fat
- Size of pieces (particulates)
- Consistency/viscosity of food
- Convection heating in liquids
- Conduction heating in solids
- Fullness of pack
- Container size and material
- Initial temperature of food
- Microorganisms present
  - **Target organism in canning is always *Clostridium botulinum***

The Effects of Altitude:

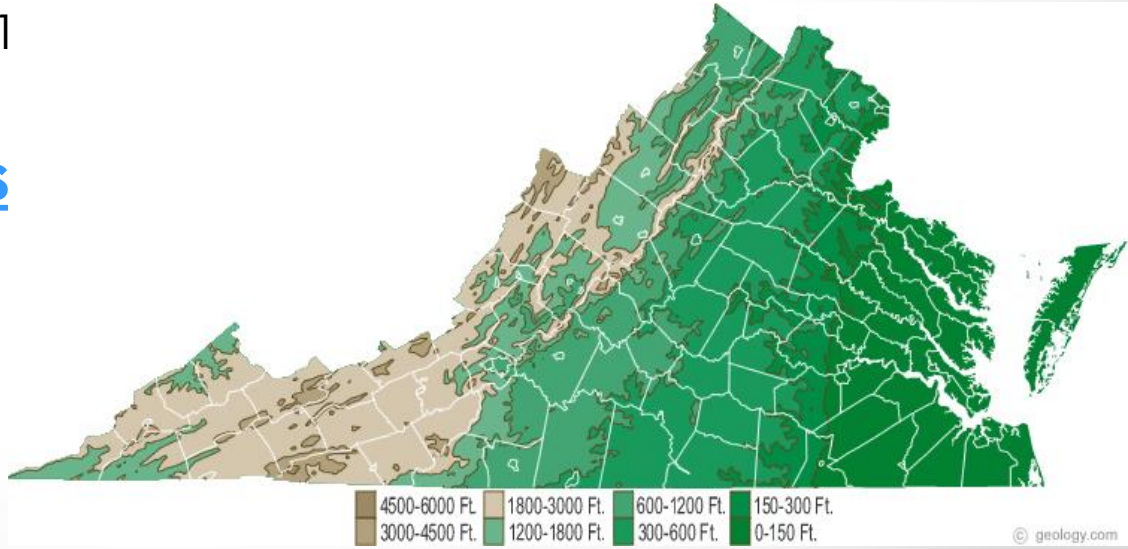
- Water boils at lower temperatures as altitude increases.
- Visual determination of boiling/simmering is not reliable; so…..

  Use a thermometer for verifying temperature!

- Altitudes in VA vary greatly:

  Independence, VA: 1

- http://geonames.us



Hot Fill Hold Process

- Product is filled into the finished containers at a temperature high enough to assure that the temperature of all product in the container is at or above the minimum prescribed when the closure (lid) is applied.
- Container is then inverted (turned upside down) for a specific time, right-sided and then cooled.
- Critical factors may include head space (consult with process authority).

Who Regulates What?

- U.S. Dept. of Agriculture (USDA) - Production and distribution of meat (2% or greater), poultry (2% or greater) and whole eggs
- U.S. Food and Drug Administration (FDA) - Production and distribution of all other non-meat packaged food
- States/local governments
  - Virginia Department of Agriculture (VDACS)
    - Inspection program considered "at least equal to" USDA (meat) and FDA (non-meat) inspection programs
  - Virginia Department of Health (VDH)
    - Operates under FDA Food Code (Currently 2009 version)
    - Local jurisdictions may have more stringent codes

Who Regulates What: VA Department of Agriculture and Consumer Services (VDACS)

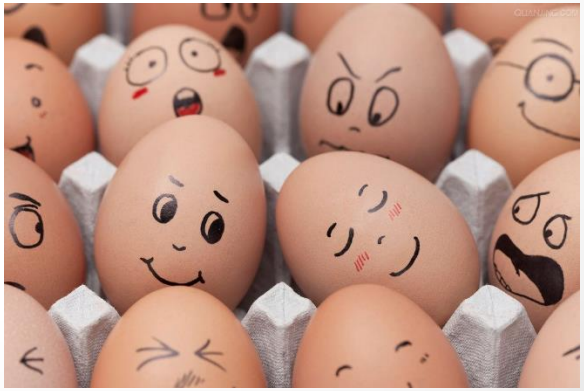
- Food Manufacturers (Packaged Products)
- Commercial
- Home
- Food Warehouses
- Supermarkets and Convenience Stores
- Seafood markets
- Bakeries
- Farmer's Markets Vendors

Who Regulates What: VA Department of Health (VDH)

- Restaurants
- Catering Operation
  - Trucks and mobile units
- Carts and mobile units
- Bed and Breakfasts
- Delis (Not attached to Store)
- Convenience Store Delis
  - Greater than 15 seats
  - Associated with a national chain
- Farmer's Markets (Usually only inspect mobile units and foods needing temperature control for safety)

Regulatory Scramble: Who Inspects Eggs?

- FDA/VDACS Office of Dairy and Foods
  - Eggs in shell
  - Chicken feed
- USDA/Office of Meat and Poultry
  - Liquid, frozen and dehydrated egg products
  - Laying facility
  - Bird and meat of bird



A Word About the Incredible Edible Egg….

Virginia Egg Laws and Rules

The term "fresh eggs," or any legend, symbol, picture, representation or device declaring or tending to convey the impression that the eggs are fresh may be applied only to eggs meeting the requirements of ***grade A quality or better*** *as established by the Board for fresh eggs.*

- ***Grades have nothing to do with food safety, this is a marketing service***
- Certain heirloom breed chicken eggs, duck and quail eggs do not grade well

A Word (or two) About the Egg….

- When Selling Eggs:
  - Inside carton air must be 45°F or below
    - Recommend using cooler with white lid
    - Recommend using thermometer and keep records
  - Can re-use cartons – must obliterate grading information if eggs are not graded
  - Label must include:
    - ✓ Egg Type
    - ✓ Count
    - ✓ Producer and producer address
    - ✓ Pack Date
    - ✓ Safe handling instructions (can keep from re-used carton)

Home-based Kitchens or Separate Commercial Kitchen?

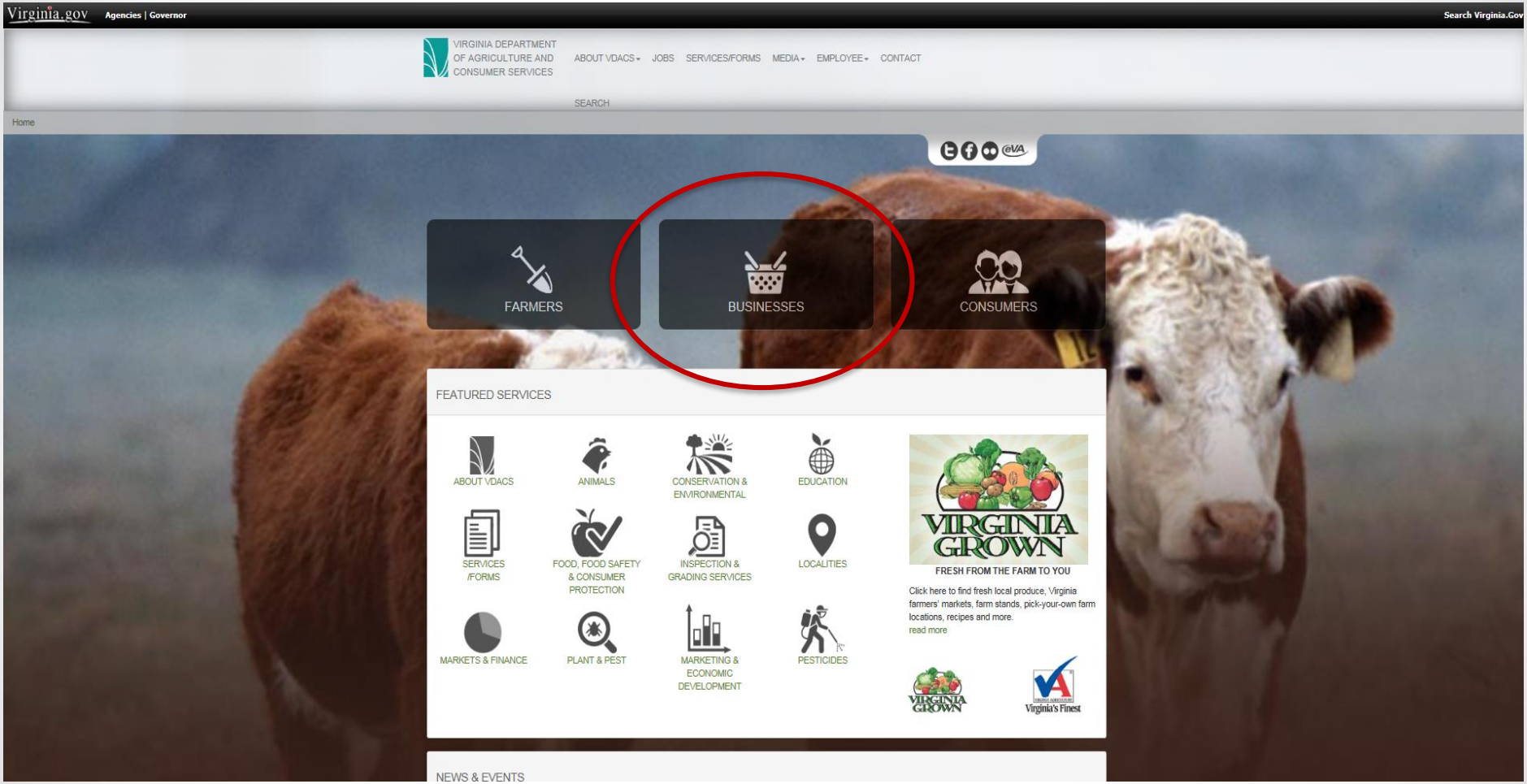
- VDACS
  - Allows home-based businesses
    - **Pets must be excluded by doors on kitchen and storage areas (Keeping pets in closed rooms will not satisfy requirement)**
  - Does not allow home kitchens to be used for dairy product or meat products manufacturing
    - Facility must be separate facility from home kitchen
- VDH
  - Does not allow home-based businesses
  - Must be separate facility from homeowner's kitchen

Reference Documents Used

- VDACS
  - **Wholesale Manufacturers: Code of Federal Regulations**
    - CFR 21: FDA regulated products
    - CFR 9: USDA regulated products
  - **Retail Manufacturers**
    - FDA Model Food Code 2013
    - Both USDA and FDA regulated products
- VDH
  - **FDA Model Food Code 2013**


VIRGINIA DEPARTMENT
OF AGRICULTURE AND
CONSUMER SERVICES

Office of Dairy and Foods Information



MENU

ABOUT VDACS
ANIMALS
CONSERVATION & ENVIRONMENTAL
EDUCATION
FOOD, FOOD SAFETY & CONSUMER PROTECTION
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- Charitable Solicitation
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INSPECTION & GRADING SERVICES
LOCALITIES
MARKETING & ECONOMIC DEVELOPMENT
MARKETS & FINANCE
MEDIA
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PLANT & PEST

HOME & COMMERCIAL KITCHEN-BASED BUSINESSES & FOOD SERVICE VENDORS

Food establishments, including private homes, that manufacture, process, pack or hold food for sale are subject to the Virginia Food Laws and related regulations. It is unlawful to operate a food business until it has been inspected. (Note these exceptions from inspection.)

Enforcement of these requirements includes regular periodic inspections of food establishments, including private homes. VDACS' Food Safety Specialists, also known as inspectors, ensure that any food or beverage manufactured, produced, processed, packed, exposed, offered, possessed or held for sale is safe for human consumption, and in compliance with the Virginia Food Laws and related regulations. Inspectors look for evidence of unsanitary conditions, mislabeling and the mishandling of food products that can lead to unsafe foods. Manufacturers are subject to unannounced inspections and sampling, as well as an annual fee. See these frequently asked questions.

Catering is not permitted from a home-based kitchen. If you are interested in starting a catering company, please contact the Virginia Department of Health. Products containing meat are regulated by the Office of Meat and Poultry Services.

Applications

- Application for a Home Food Processing Operation (pdf)
- Farmer Market Food Service Vendor Application (pdf)

Laws & Regulations

- Virginia Food Laws
- Virginia's Home Kitchen Food Processing Exemptions (pdf)
- FDA: Good Manufacturing Practices Regulations
- FDA: Labeling Regulations
- FDA: Specialized Laws & Regulations

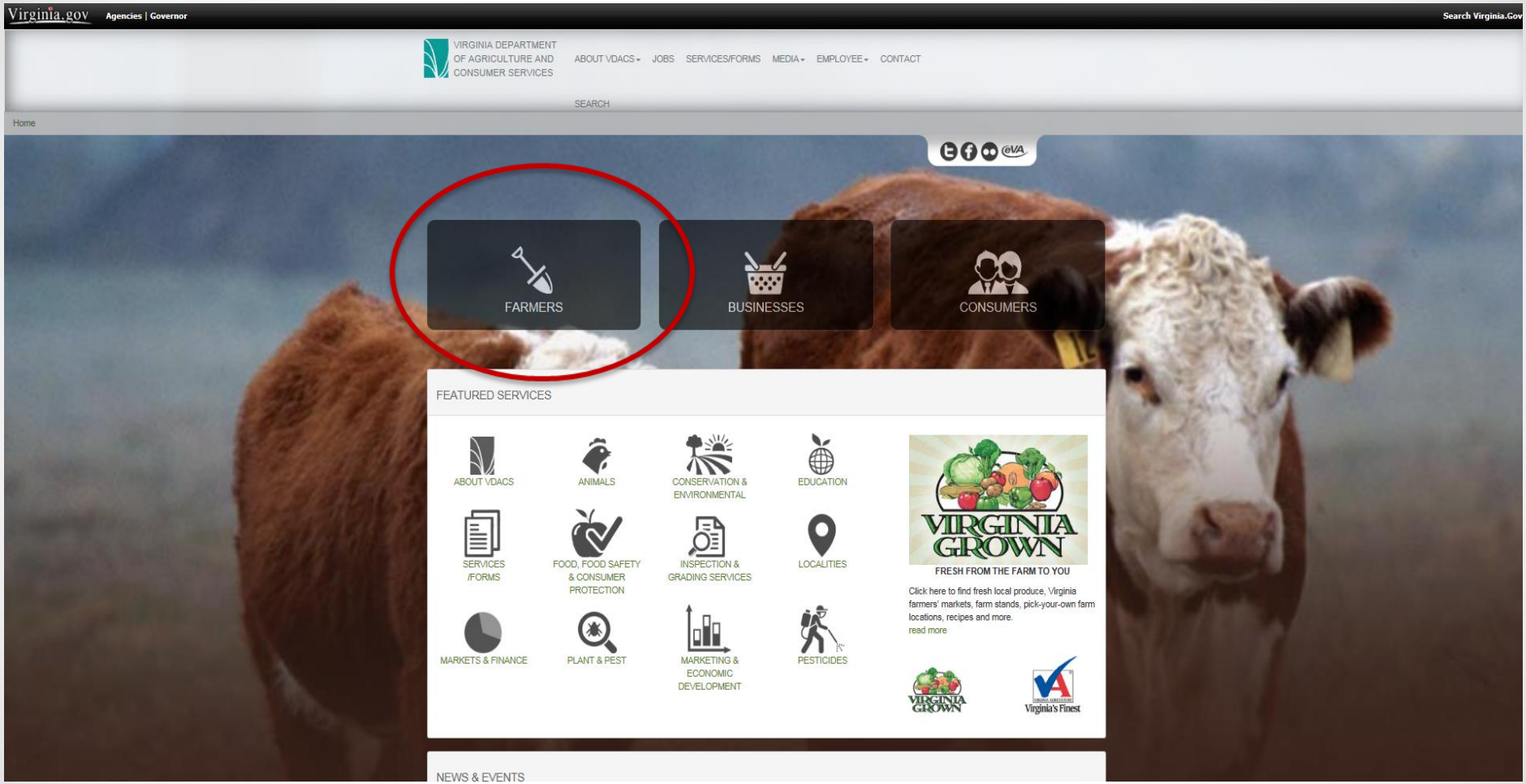
Additional Resources

- Frequently Asked Questions: Food Safety Program Annual Fees
- Food Innovations Program at Virginia Tech
- Food & Drug Administration
- Virginia's Finest Program

Contact

Northern Virginia **Southwest Virginia** **Richmond & Tidewater**

Office of Meat and Poultry Information



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MEAT & POULTRY SERVICES

In cooperation with the U.S. Department of Agriculture, the Office of Meat and Poultry Services administers meat and poultry inspection laws and regulations designed to provide and maintain a safe, unadulterated, wholesome and accurately labeled meat and poultry supply.

The office oversees the process of converting farm-raised animals into food products, which includes raw products such as ground meat as well as cooked products such as Brunswick stew. Inspection services are available to individuals or companies that slaughter and/or process meat and poultry products.

Resources

- Meat & Poultry Services Forms
- USDA Food Safety & Inspection Service

Publications

- A Guide to Virginia's Meat & Poultry Inspection Program (pdf)
- Directory of Establishments (pdf)
- How to Obtain State Meat & Poultry Inspection (pdf)
- Establishment Design & Construction Guidebook (pdf)
- Requirements for a Custom Permit (pdf)
- Guidance for Determining Whether a Poultry Operation is Exempt from Inspection (pdf)

Laws & Regulations

- Virginia Meat & Poultry Inspection Act
- Virginia Meat & Poultry Inspection Regulations

Contact
Barry Jones
Office of Meat and Poultry Inspection
804.786.4569
barry.jones@vdacs.virginia.gov

Click here for Division of Animal and Food Industry Services contact information.

Click here to submit a complaint concerning foodborne illness, or conditions at a food manufacturer or retail store.

VDACS Resources

vdacs.virginia.gov

Inspection Services (Regulatory)

Office of Food Safety and Inspection

- Assists in facility planning and layout
- Authorizes facility for food processing
- Enforces food regulations
- Divisions include:
  - Office of Dairy and Foods (FDA-regulated products)
  - Office of Meat and Poultry (USDA- regulated products)
  - Consumer Affairs

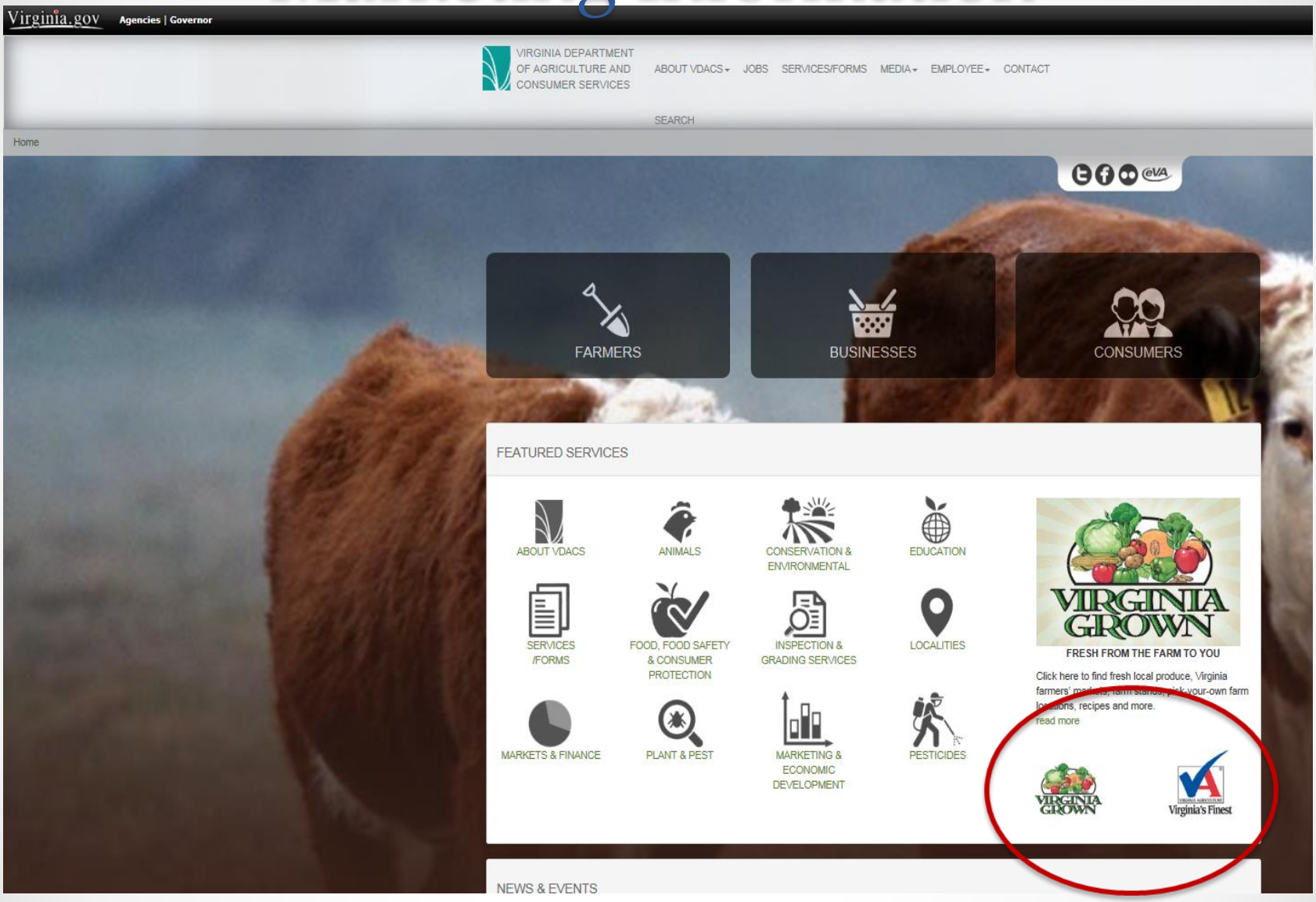
- Office of Plant Industry Services-Agricultural Commodity Inspection – Animal Feeds and Treats

VDACS Resources

Office of Marketing Services

- Virginia's Finest Trademark Program
- Virginia Grown Program – direct marketing support program for growers
- Marketing Board News
- Trade Event Notification
- Grading Services
- Connecting with Food Distributors

Marketing Information



THE SPECIALTY FOOD ADVISORY COMMITTEE

- Created by VDACS Commissioner, Todd Haymore, in 2007
- Appointed 11 members, knowledgeable about specialty food issues in Virginia
  - Represent retailers
  - Specialty food producers
  - Food Science Department at Virginia Tech
  - Supplier side of the industry
- Purpose - Advise VDACS on the marketing and promotion of Virginia's specialty food industry
- Annual educational conference: VA Food and Beverage Expo, March 2018, Richmond, VA

What Does the Exemption Mean??

- Inspection exemption does not mean exemption from regulations
- All state and federal food laws must be followed
- Not exempt from labeling
- Not exempt from federal inspection

Office of Dairy and Foods Inspection Exemption

- Exempt from State Inspection
- Private home where resident is processing specific food products (no meat, poultry or dairy)
  - Sold to directly to consumers for their own consumption and **not for resale**
  - Sold at the private home or at farmer's markets
  - Labeled "NOT FOR RESALE – PROCESSED AND PREPARED WITHOUT STATE INSPECTION"
  - Cannot be sold to other establishments (wholesale or retail) or on internet

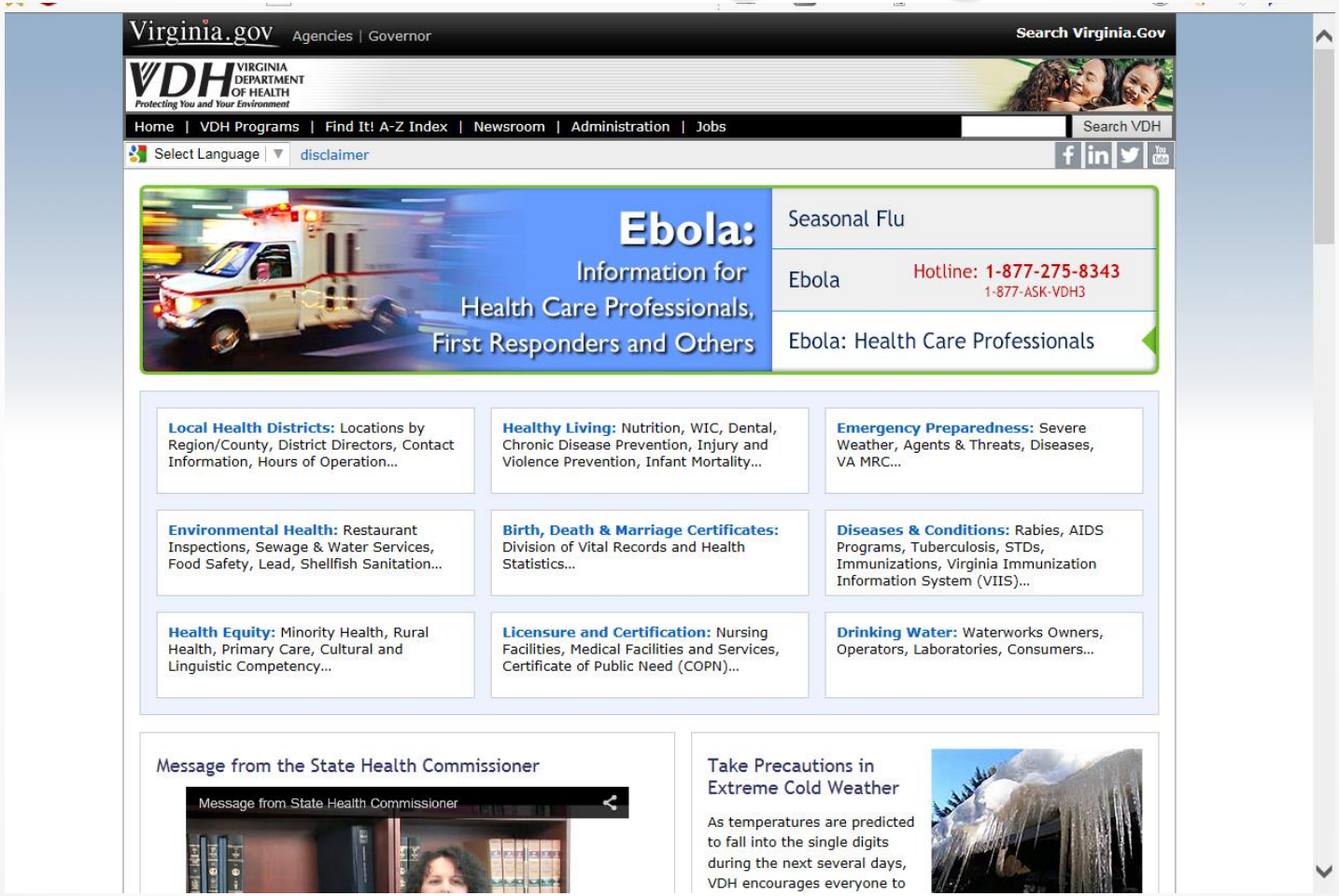
Office of Meat and Poultry Exemptions

- Custom Exemption
  - Owner of the livestock or poultry slaughter for own use or for use by members of his household or nonpaying guests
  - Cannot be sold
  - Must be marked "NOT FOR SALE"
  - Custom Permit – custom slaughtering animals owned by others
  - Cannot cross state lines
- No meat (other than poultry) can be sold without inspection!

Office of Meat and Poultry Exemptions

- Poultry Exemption
  - Poultry can be sold
    - ***FDA Food Code requires poultry sold at retail stores and prepared in restaurants to come from an approved source***
  - Basic sanitary requirements must be met
  - Selling direct to consumer:
    - 1,000 birds up to 20,000 birds/year must apply for Poultry Permit of Exemption
    - Less than 1,000 birds permit may not be needed
    - Must maintain records
  - Selling to restaurants, hotels, or boarding houses
    - Must apply for Poultry Permit of Exemption
    - No more than 20,000 birds/year
    - Must maintain records
  - Cannot cross state lines

Virginia Department of Health (VDH) www.vdh.virginia.gov



Virginia.gov Agencies | Governor Search Virginia.Gov

VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment

Home | VDH Programs | Find It! A-Z Index | Newsroom | Administration | Jobs Search VDH

Select Language disclaimer

Home > OEHS > Food and General Environmental Services

Food and General Environmental Services

The Virginia Department of Health and the Food and General Environmental Services maintain several roles in attempting to control for and prevent the occurrence of foodborne diseases, including: performing surveillance activities for various reportable conditions, investigating reportable disease occurrences, including outbreaks; and inspecting restaurants.

According to the Centers for Disease Control and Prevention (CDC), foodborn disease in the U.S. affects an estimated 48 million persons.

Food Safety

Bedding & Upholstery

Milk Safety

Childhood Lead Poisoning Prevention

Regulations

Links

PIMS

EH Calendar

Quick Links

Restaurant Inspections
Recalls affecting Virginia
FDA Recalls
USDA Recalls

E-mail This Page

Last Updated: 03-05-2015

Who needs to apply for a permit to operate?

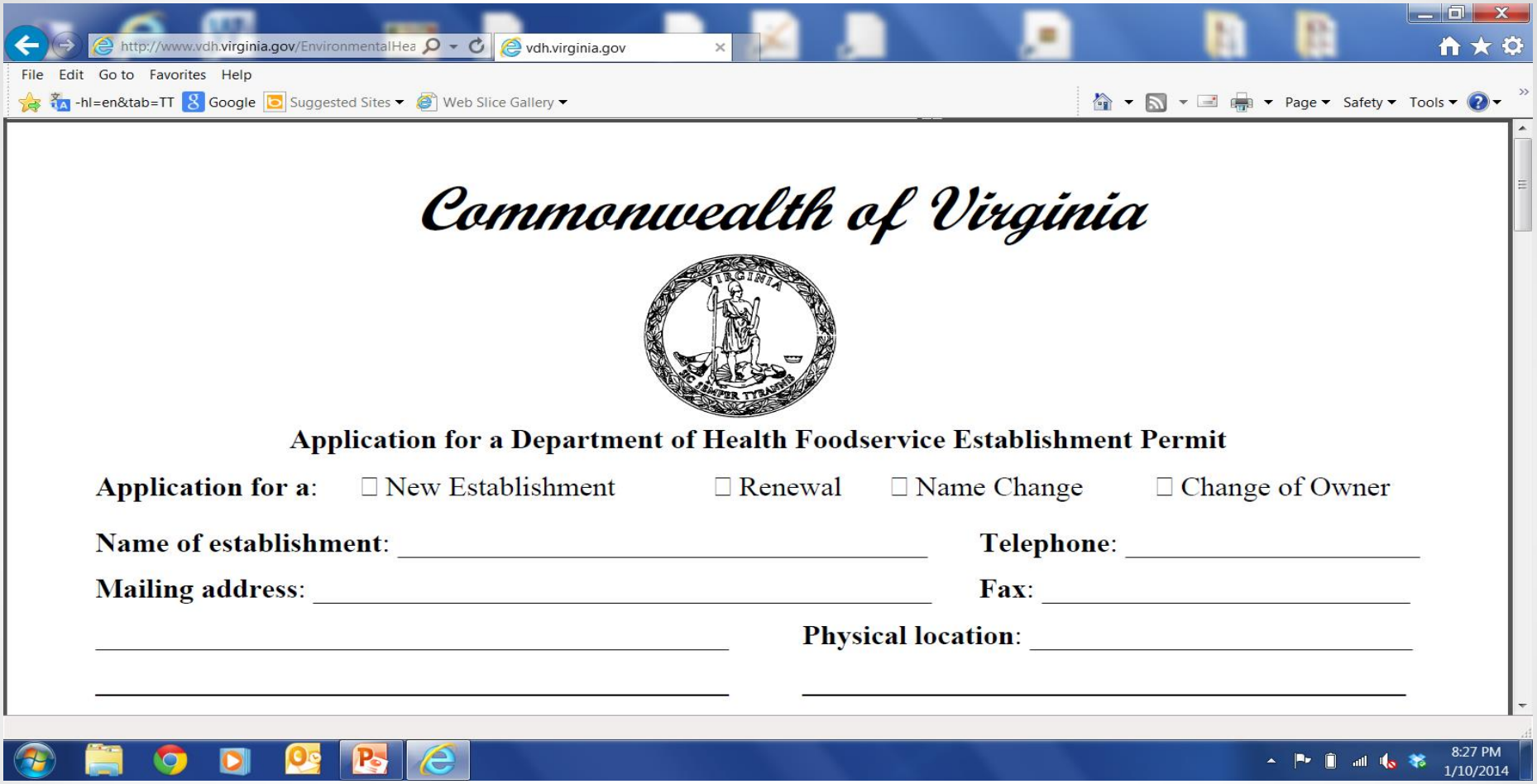
- Any person who owns, establishes, conducts, maintains, manages, or operates any food establishment being regulated by VDH in this commonwealth.
- Permits are not transferable from one person or location to another (exception possible for mobile units attached to fixed location)

VDH Responsibilities

- Issue Permit to Operate at State/Local Level
- As condition of holding permit:
  - Must submit to regular evaluations by issuer
  - Must comply with local/state regulations
  - Report to health dept. if suspect outbreak
- Provide education or direct to resources
- Notify if conditions arise that could affect operation
- Initiate enforcement

How to Apply for a Foodservice Permit and Ready for Inspection

- Fill out an application form
- Pay a $40 permit application
  - $40 plan review fee
  - $425 for septic review
  - $300 for well inspection
- Learn about food safety
- Plan Review : At least 2 weeks prior to construction start up-submit to scale drawings, equipment specification sheets and menu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Web Slice Gallery
Page
Safety
Tools
Commonwealth of Virginia
VIRGINIA
SIC SEMPER TYRANNIS
Application for a Department of Health Foodservice Establishment Permit
Application for a: ☐ New Establishment ☐ Renewal ☐ Name Change ☐ Change of Owner
Name of establishment: _____ Telephone: _____
Mailing address: _____ Fax: _____
_____ Physical location: _____
_____ _____
8:27 PM
1/10/2014

Food Sources

Food Code States:

- Food shall be obtained from sources that comply with law.
- Food prepared in a private home may not be used or offered for human consumption in a food establishment.
- Packaged food shall be labeled as specified in law.

- Learn about foodborne illness and how to prevent it through best food safety practices
- Offered throughout commonwealth by Virginia Cooperative Extension Agents
- Offered on-line

Produce Safety Course for Direct Marketers

Offered by Extension Agents Across the Commonwealth

THE UNIVERSITY OF GEORGIA COOPERATIVE EXTENSION
College of Agricultural and Environmental Sciences
College of Family and Consumer Sciences

CLEMSON COOPERATIVE EXTENSION

Virginia Cooperative Extension
A partnership of Virginia Tech and Virginia State University www.ext.vt.edu
VirginiaTech Invent the Future
VSU VIRGINIA STATE

http://www.pubs.ext.vt.edu/tags.resource.html/pubs_ext_vt_edu:on-farm-food-safety

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Virginia Cooperative Extension
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Publications and Educational Resources

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Agriculture | Community & Leadership | Natural Resources | Family | Food & Health | Lawn & Garden | 4-H / Youth

Resources for **On-Farm Food Safety**

Rss Feed

Title	Available As	Summary	Date	ID	A
Enhancing The Safety of Locally Grown Produce: Farm Self-Help Form	(PDF)		Jun 6, 2012	FST-35NP	
Enhancing The Safety of Locally Grown Produce: On the Farm	(PDF)		Jun 6, 2012	FST-36NP	
Enhancing The Safety of Locally Grown Produce: Land Use	(PDF)		Jun 6, 2012	FST-37NP	
Enhancing The Safety of Locally Grown Produce: Water Use	(PDF)		Jun 6, 2012	FST-38NP	
Enhancing The Safety of Locally Grown Produce: Manure Use	(PDF)		Jun 6, 2012	FST-39NP	
Enhancing The Safety of Locally Grown Produce: Farm	(PDF)		Jun 6, 2012	FST-40NP	

Label Requirements

- Does My Food Need a Label?
  - Required:
    - Product Name on Front Label
      - Accurate, **Bold**, **Largest Type**
    - Net Weight
      - US and Metric (ounces and grams)
    - Ingredient Statement
      - Listed in order of predominance based on weight
    - Name and Address of Manufacturer, Distributor, or Packer
      - No PO Box, Email address can not substitute actual address
    - Nutrition Facts Information

Nutritional Label

Nutrition Facts Information
Exemption for Small Business

- Applies to retailers with annual gross sales of not more than $500,000, or with annual gross sales of foods or dietary supplements to consumers of not more than $50,000
- Applies if the company has less than 10 employees and sells less than 10,000 units
  - No notice needed to be filed with FDA

- Applies if the person claiming the exemption employs fewer than an average of 100 full-time equivalent employees and fewer than 100,000 units of that product are sold in the United States in a 12-month period.
  - Notice must be filed annually with FDA
- **If making any nutritional claim, exemption is void no matter the size of business.**

Allergen Labeling

- Labeling Allergens

Food Allergen Labeling and Nutrition Labeling Act of 2004

  - Requires use of common English names for the major food allergens (Milk, Eggs, Fish, Crustacean Shellfish, Treenuts, Peanuts, Soy, Wheat)
    - Tree nuts - identify specific nut such as "almond," "pecan," "walnut"
    - Fish/Shellfish must identify species, such as "tuna," "bass," "flounder," "shrimp," "lobster"
  - Requires labeling for flavors, colors, and incidental additives if contain allergens
  - No minimum level of allergen required for labeling

Bioterrorism Requirements: Recordkeeping

Records on Immediate Previous Source (one upstream) and Immediate Subsequent Receiver (one downstream)

Records must be retained for:

- 6 months for foods with shelf life of 60 days or less
- 1 year for foods with shelf life of 60 days to 6 months
- 2 years for foods with shelf life of over 6 months
- 1 year for animal feeds and pet food

Records must be made available "as soon as possible, not to exceed 24 hours from the time of receipt of the original request".

Immediate Previous Source

- Means that you have to know where the product came from.
  - Receiving Records
    - PO's
    - Shipping documents
    - Invoices
    - Receipts
  - Ingredient Information
    - Lot codes
    - Other Receiving documents (date, amount)
    - Condition of receipt

Immediate Subsequent

- Means that you have to know where the product went.
  - As an ingredient
    - Lot code of ingredient in batches
  - As a finished good.
    - Lot codes of batches in shipment

Production/Lot Codes

- Record incoming lot codes of ingredients and connect at time of use to a finished product lot code
- Lot codes should have meaning and be easy to understand
- Use lot codes as key part of your records
  - Set up a field specifically for lot codes that you can search and sort by
  - Print lot codes on shipping documents so you and your distribution customers have trace back

Example of code

15090 GV08DV 09

Product Code Description

- Year = first two digits
- Julian date (March 31 = 90th day of year) = Next three digits
- Type (ex., GV = garden vegetable sauce)
- Line (ex., Line # 8)
- Location (ex., DV = Danville, VA plant)
- Hour (ex., 09 = 9:00 a.m.)

or

10/20/2015

(Date of Production)

Basics of Product Development

- Consumer Testing Stage:
  - Neglected by small food processors
  - Display new products in small grocery stores/specialty stores (ex.: Fresh Market, Trader Joe's)
  - Shoppers given sample and questions
    - *Price sensitivity*
    - *Product positioning*
    - *Physical attributes*
    - *Purchase frequency*
    - *Desired serving size*
    - *Purchase intent and frequency*
  - Actual sales after tasting reinforce need

Product Development Stages

- Shelf-Life Stage
  - Retain product from production batches for shelf-life
  - Hold at conditions as close to retail as possible
  - Components
    - Microbiological
    - Chemical
    - Organoleptic (Sensory)
  - Accelerated shelf-life testing may not be appropriate al all but in no instance does it completely predict shelf-life performance
- Packaging Stage
  - Protects product
  - Helps sell product
  - Affects shelf-life

Packaging Pointers

- Choice of package hinges on purpose
  - Protective barrier from air/water
  - Visual aspects (Visual window, graphics)
  - Protection from breakage
  - Purposes may have inverse relationships
- Material greatly affects price
- Package choice greatly affects shelf-life and quality

A Primer on Plastic

- Polyethylene
  - Most used plastic in world
  - Light weight
  - Inexpensive
  - Impact resistant
  - Excellent moisture barrier
  - Poor gas barrier
  - Grease and oil resistance properties
  - Poor visual transparency
  - Used in blow molded applications (milk jugs)

A Primer on Plastic

- Nylon
  - Very good gas barrier properties
  - Used with modified atmosphere and reduced oxygen atmosphere products (meat and cheese)
  - Low moisture barrier properties

- Polystyrene
  - Low moisture barrier properties
  - Low gas barrier properties
  - Can have excellent clarity
  - Ability to foam
  - Inexpensive and easy to use

A Primer on Plastic

- Polypropylene
  - Better vapor barrier than polyethylene
  - Better visual transparency than polyethylene but not excellent clarity
  - Heat resistant up to 133°C
  - Can be used for microwave applications

- Polyester
  - Polyethylene terephthalate polyester (PET)
  - Fairly good gas barrier properties
  - Stable and strong but difficult to form
  - Transparency makes it plastic of choice in replacing glass for many applications
  - Not good for light sensitive products

A Primer on Plastic

- Barrier Plastics
  - Polyvinylidene chloride (PVDC)
    - Dow Chemical Company – Saran
    - High gas barrier properties
    - High moisture barrier properties
    - Flavor barrier properties

  - Ethylene Vinyl Alcohol (EVOH)
    - Outstanding gas and flavor barrier properties
    - Moisture sensitive
    - Usually sandwiched between polypropylene

Product Development Stages

- Final Production Stage
  - Time to make product for retail sale!
- Test Marketing Stage
  - Introduce new product into a limited area
  - Distribute in stages to progressively larger areas (statewide, regional, national)
- Commercialization Stage
  - Sell to the institutional trade
  - Sell to retailers/wholesalers
  - Co-packing may be merited at this stage

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