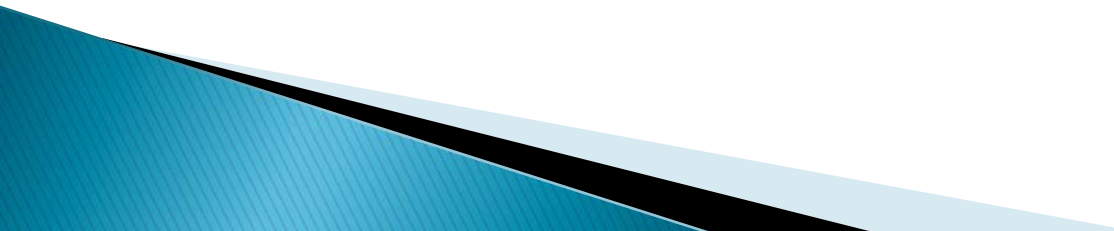


# Food Handling and Sampling at Farmers Markets

Patrick L. Guzzle  
Food Protection Program Manager  
Idaho Department of Health and Welfare

# Brief Outline

- ▶ Who does inspections in Idaho?
  - ▶ What is regulated in Idaho?
  - ▶ Why are these foods regulated?
  - ▶ What are some minimum requirements?
  - ▶ First, a little about me and why I do what I do.
- 


Arguing with an inspector is like wrestling with a pig in the mud.



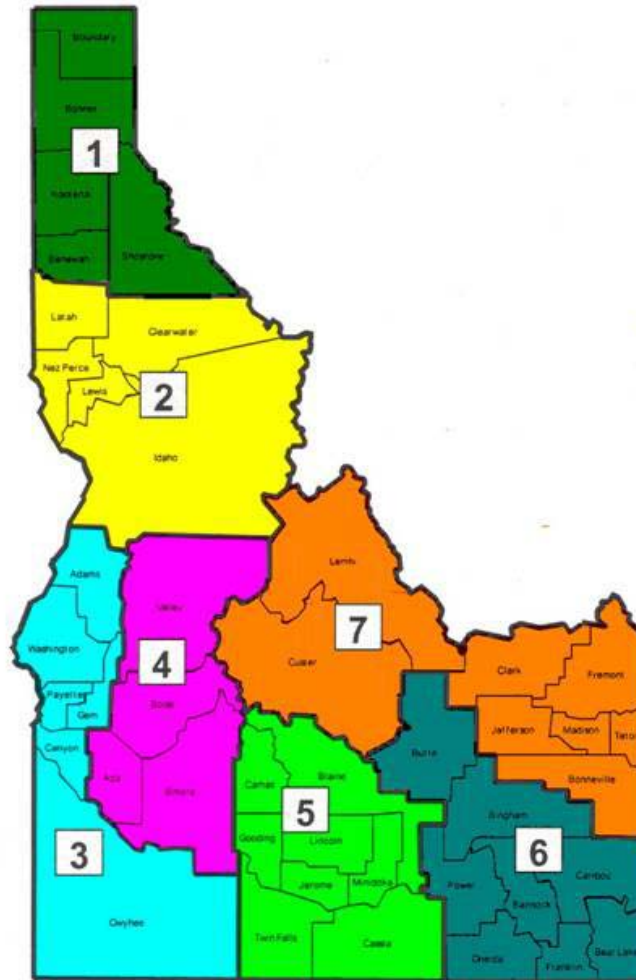
**After a while**

**... you realize that the pig enjoys it**

# Who does the inspections?

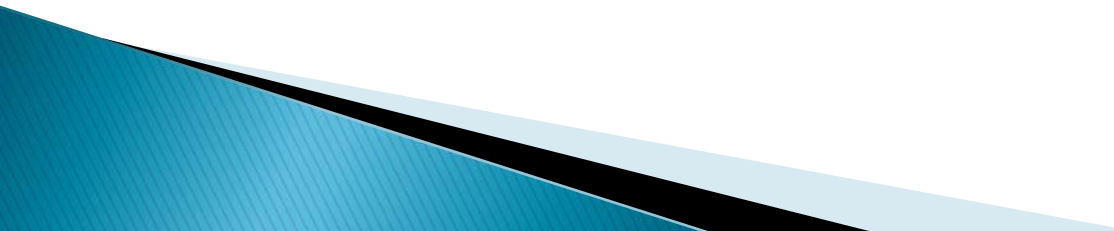
- ▶ Idaho has 7 District Health Departments
  - ▶ These districts are each completely autonomous – they are governed by their own Board of Directors
  - ▶ Through a Memorandum of Agreement they are delegated the authority to issue permits, inspect facilities, investigate complaints
  - ▶ Food Protection Program (FPP) provides support and oversight
  - ▶ FPP does annual “site visit” and field work with each district
- 

# Idaho Public Health Districts



District 1	District 2	District 3	District 4	District 5	District 6	District 7
Benewah Bonner Boundary Kootenai Shoshone	Clearwater Idaho Latah Lewis Nez Perce	Adams Canyon Gem Owyhee Payette Washington	Ada Boise Elmore Valley	Blaine Camas Cassia Gooding Jerome Lincoln Minidoka Twin Falls	Bannock Bear Lake Bingham Butte Caribou Franklin Oneida Power	Bonneville Clark Custer Fremont Jefferson Lemhi Madison Teton

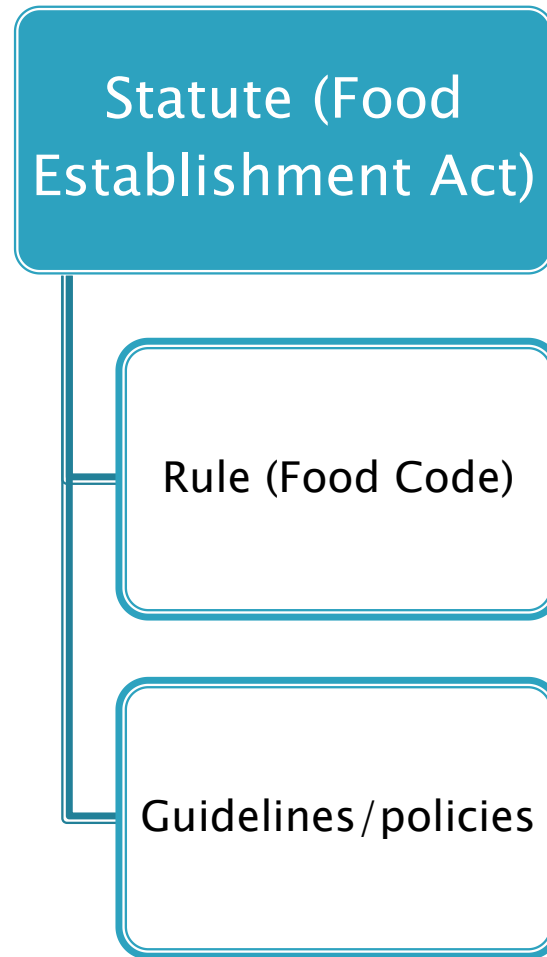
# More About Who We Are

- ▶ Environmental Health Specialists (EHS's)
  - ▶ All have undergone extensive training in both classroom and practical situations
  - ▶ We are required to maintain “continuing education units”
  - ▶ Generally have experience with all aspects of environmental health
  - ▶ We are public health professionals
  - ▶ We are customers – we buy and eat food too!
  - ▶ We deal with regulations
- 

# Food Establishment Act

- 39-1601 . Statement of purpose. The legislative intent of this chapter is to protect the public health by establishing standards and provisions for the regulation of food establishments; by delegating authority to the board of health and welfare to adopt rules covering the health and sanitation aspects of food establishments, to collect a fee to cover a portion of the cost of the food safety inspection program and by delegating the authority to the director of the department of health and welfare to enforce the provisions of this chapter. This chapter is enacted to ensure that consumers are not exposed to adverse health conditions arising out of the operation of food establishments.

# Legal Hierarchy for Idaho Food Safety

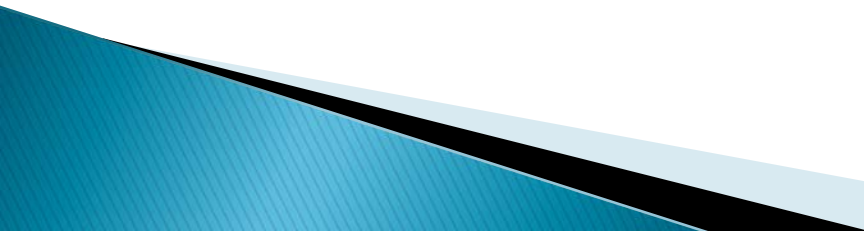




# Notes about the different levels

- Statute: “enabling” law
  - Written in very general and broad terms
  - Legislative review
- Rule: (Idaho Food Code)
  - More specific
  - Has same power as law but if there is a conflict, statute wins
  - Legislative review
- Guideline/Policy
  - Very specific
  - Not same power as law but reflects best practices and recommendations
  - Often become the framework for rules in future
  - Do not go through Legislative review but do go through legal review

# Idaho Regulations and Hierarchy

- Statute is “top” of hierarchy
  - 2 statutes that pertain to food safety: Food Establishment Act (Idaho Code Title 39 Chapter 16) and Food, Drugs, and Cosmetics Act (Idaho Code Title 37, Chapter 1)
  - FD&C Act legally obligates public health professionals to act on foods known to be unsafe, adulterated, mislabeled, etc
  - Food Establishment Act is what we usually deal with and what we’ll discuss today
- 

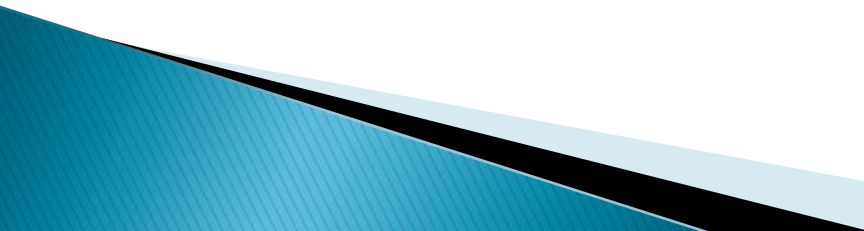
# Food Establishment Act

- "Food establishment" means those operations in the food business such as, but not limited to, food processing establishments, canning factories, salvage processing facilities, food service establishments, cold storage plants, commissaries, warehouses, food vending machine operations and location, caterers, mobile food units and retail food stores. Such operations include all activities under the control of the license holder including preparation, processing, storage, service, transportation vehicles, satellite locations, divisions and departments, and remote feeding sites. The term includes operations which are conducted in permanent, temporary or mobile facilities or locations. It includes any food operation regardless of whether consumption is on or off the premises and regardless of whether there is a charge for the food.

# Food Establishment does NOT include

- Agricultural markets
  - Any fixed or mobile retail food establishment engaged in the sale of raw or fresh fruits, vegetables and nuts in the shell. It may also include the sale of factory sealed non-hazardous foods (defined in Idaho Food Code)
- License requirements
  - No person, firm or corporation shall operate a food establishment...without a license approved by the director of the department of health and welfare or his designee. (Statutory requirement)

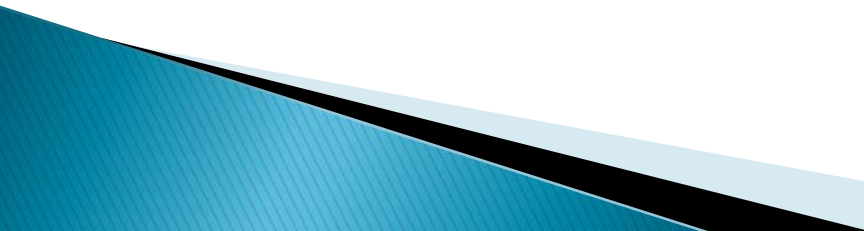
# Licensing/Permitting

- ▶ Licenses are issued by District Health Departments (DHD)
  - ▶ License fees go directly to DHD
  - ▶ Inspections done by DHD in accordance with policy by Food Protection Program (FPP)
  - ▶ By statute, inspections are to be unannounced
  - ▶ Food Protection Program works closely with DHDs to establish policies and rules
- 

# How does this all apply to my market?

- We look at individual vendors as food establishments
- By policy, we do not require licensure/inspection for:
  - Shelf stable baked goods (cookies, bread, fruit pies, etc)
  - Jams and jellies
  - Honey
  - Prepackaged non-potentially hazardous foods (PHF)
- PHF is a term we use to describe some food characteristics

# PHF/TCS

- ▶ Preferred term is now Time/Temperature Control for Safety (TCS) foods
  - ▶ Foods or ingredients that are capable of supporting rapid and progressive growth of pathogenic bacteria or that is capable of supporting the growth and toxin production of botulism spores
  - ▶ These are the foods we worry about
  - ▶ How are foods exposed to pathogenic organisms?
- 





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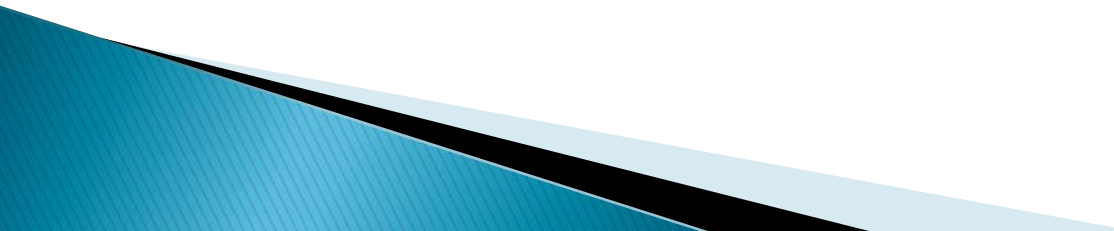






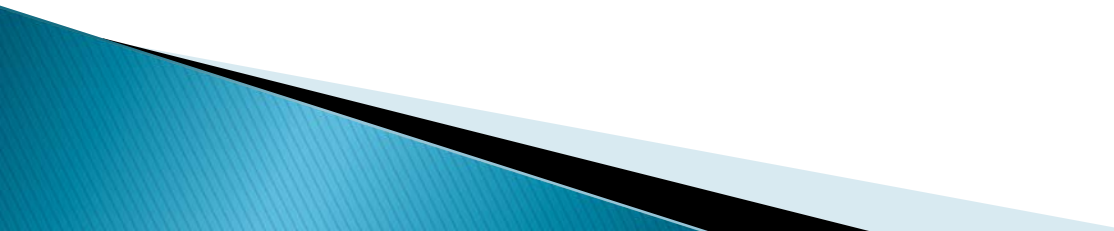


# TCS foods

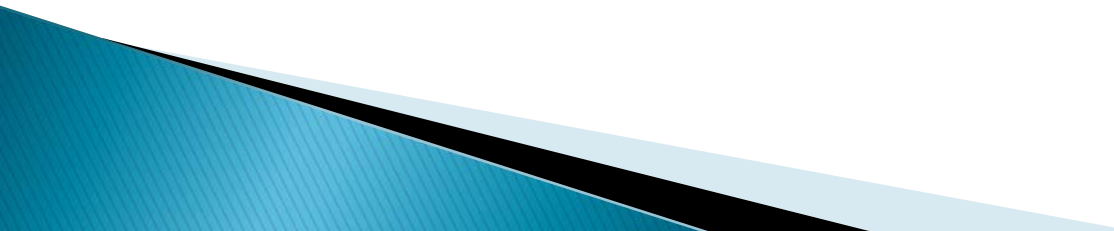
- Meats
  - Most dairy items
  - Heat treated produce including canned foods (botulism)
  - Fresh salsas
  - Cut melons
  - Cut tomatoes
  - Cut leafy greens
  - Seed sprouts
  - Cooked starches (rice, pasta, potatoes)
- 




# Why Are These Foods Regulated?

- ▶ Consumer demands
  - ▶ Each year – estimated 48 million cases some 128,000 hospitalizations and 3,000 deaths in the U.S.
  - ▶ Why is this number an estimate?
  - ▶ How many of you have ever had “The 24 Hour Stomach Flu”?
  - ▶ Guess what? – you probably had one of the 50+ different foodborne illnesses
- 


# Potential Causes of Foodborne Illness

- ▶ Chemical – cleaning chemicals
  - ▶ Physical – foreign objects
  - ▶ Biological – bacteria, viruses, molds
  - ▶ Chemical and physical usually happen quickly
  - ▶ Biological is the “last thing I ate” – right?
  - ▶ **WRONG!** Sometimes biological causes take days or weeks to develop
- 

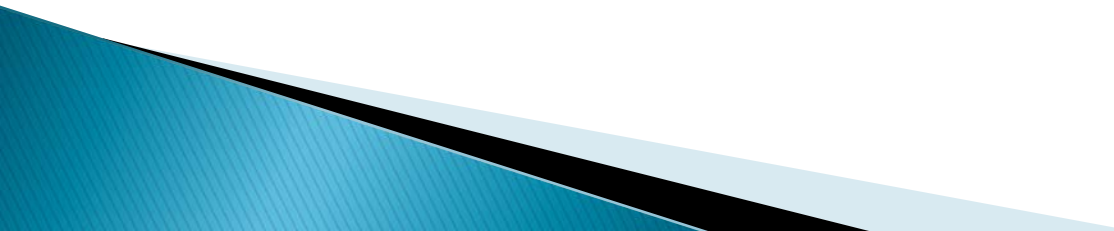
# Physical and chemical contamination

- ▶ Small pieces of foreign objects
  - ▶ “Finger in the Chili” fraud
  - ▶ Small pebbles, stems, etc. in produce
  - ▶ Big concern with these types of things is the potential for physical injury
  - ▶ Chemical contamination could be cleaning or other chemicals
  - ▶ Both Chemical and Physical contamination will generally result in near-immediate symptoms
- 

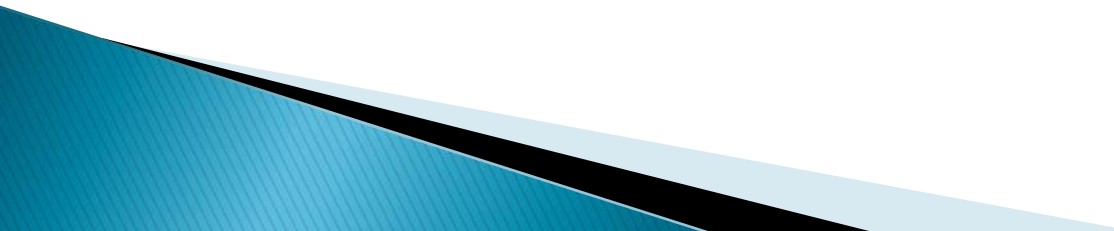
# Biological Contamination

- ▶ Bacteria
  - ▶ Viruses
  - ▶ Molds and Fungi
  - ▶ Parasites
  - ▶ Of the possible causes for foodborne illnesses, this is the major area
  - ▶ Symptoms might start as soon as 2–4 hours but might be as long as 50+ days
  - ▶ Most of these will NOT affect the appearance or aroma of the food
- 

# But It Was The Last Thing I Ate...

- ▶ Hepatitis A virus requires average of 28 days before symptoms start
  - ▶ Norovirus might result in symptoms 24 hours after exposure
  - ▶ *E. coli* can take 3–4 days before symptoms start
  - ▶ *Staph* bacteria can take 2–3 hours before symptoms start
- 

# Why The Differences In Times?

- ▶ Some dependency on the individual person
  - ▶ The organism requires specific conditions that must be met
  - ▶ Time required to reproduce to toxic level
  - ▶ Ability of the pathogenic organism to compete with other organisms
  - ▶ Some organisms are dose dependent
- 

# But I Know How I Grow These Foods!

- ▶ Many of these pathogenic organisms can be found in the air, ground, surfaces
- ▶ Viruses are becoming more common when we talk about foodborne illnesses
- ▶ Viruses can be introduced by anybody – children, adults, “sick”, “healthy”
- ▶ Hepatitis A has been associated with produce
- ▶ Norovirus is a great concern right now – it can become airborne and a very small exposure will make you sick
- ▶ Colorado cantaloupe example from last year

# What happens once the food is exposed to a contaminant

## Dye Infiltration in Cantaloupe



Photo courtesy of Dr. Michelle Smith, FDA/CFSSAN





# Dye in cantaloupe example

## Dye Infiltration in Cantaloupe



Photo courtesy of Dr. Michelle Smith, FDA/CFSAN



# Examples of Pathogenic Bacteria

- ▶ *Escherichia coli*  
O157:H7
- ▶ *Salmonella* species
- ▶ *Listeria monocytogenes*
- ▶ *Staphylococcus aureus*
- ▶ *Campylobacter* species
- ▶ *Bacillus cereus*
- ▶ *Clostridium botulinum*
- ▶ Undercooked ground meats
- ▶ Undercooked poultry
- ▶ Deli meats, cheese grows well in cold
- ▶ Humans
- ▶ Poultry, raw dairy
- ▶ Starchy foods
- ▶ Canned foods

# Eggs and dairy products

- ▶ Eggs are now exempted at farmer's markets
- ▶ Dairy products are regulated by the Idaho Department of Agriculture – you'll need to check with the Dep't of Ag to research regulations and standards

# Poultry and meat

- Small scale poultry (less than 20,000 birds/year) may be sold/given away if:
  - Processed in a licensed food processing facility
  - Labeled “exempt from USDA inspection per PL 492”
  - Does not require veterinary inspection
- Meat
  - “Custom Exempt” meat cannot be further distributed to public – only back to owner of animal

# Approved facility

- ▶ Smooth floors, walls, ceilings
- ▶ Equipment to do the necessary jobs
- ▶ Adequate refrigeration
- ▶ Adequate storage space
- ▶ If processing meat – adequate separation between “kill area” and “processing area”.



# Approved facility

Water source



Septic system



# Game meat

- Deer, elk, bison, etc
  - Must be commercially raised for food (check with Idaho Dep't of Ag and/or Idaho Fish and Game for appropriate standards)
  - Processed in a licensed facility
  - Must have ante and post mortem inspection by veterinarian
- Fish
  - Check with Fish and Game for appropriate standards/approvals for commercial harvesting
  - Cannot vacuum pack unless frozen before, during, and after packaging

# Canned/pickled items

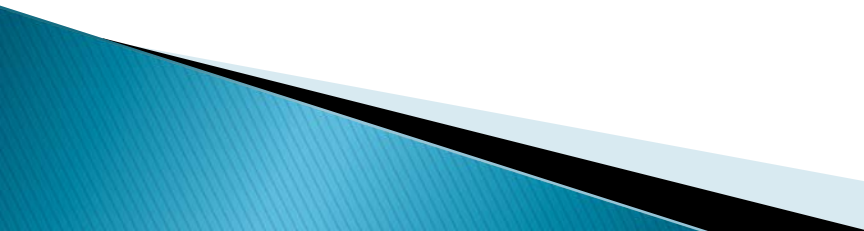
- Processed in a licensed facility
  - Greater risk for *Clostridium botulinum* spores (reduced oxygen packaging)
  - Generally do not allow private homes for this use
  - Existing law requires health districts to conduct unannounced inspections
- Appropriately labeled
  - Ingredients in descending order of predominance
  - Name and physical location of business
  - Common name of the food
  - Accurate declaration of the quantity



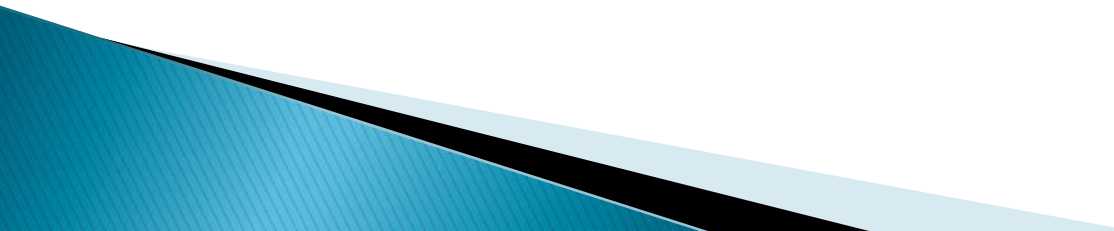
# Canned/pickled items

- ▶ Will also require a HACCP plan and a variance from the health district because of “reduced oxygen packaging” methods
- ▶ Should plan to attend a “better process control” class
  - Sometimes offered by WSU and/or the University of Nebraska
- ▶ Should plan to have recipe reviewed by a “process review authority”
  - Dick Dougherty, Washington State University
  - Brian Nummer, Utah State University

# Fresh salsas

- Processed in a licensed facility
  - Must be maintained in a refrigerated state at all times (41°F) and dated for no more than 7 days from preparation due to risk of *Listeria monocytogenes*
  - Appropriate labeling
  - If packaged using “reduced oxygen packaging” a HACCP plan and variance required
  - Should have information about water source, water sampling, soil sampling, fertilizer applications
- 

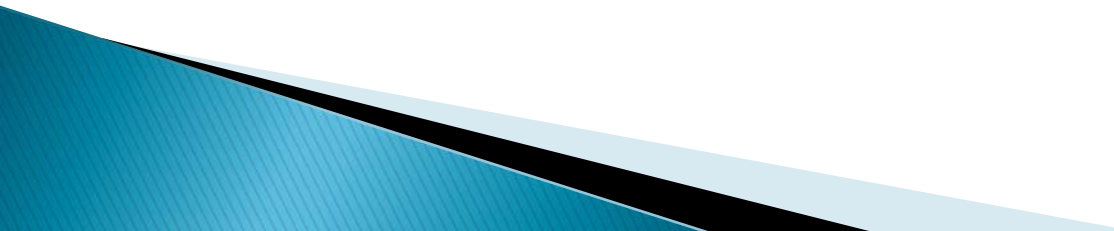
# Cut produce items

- ▶ Processed in licensed facility
  - ▶ If cut items include melons, tomatoes, or leafy greens – then items must be maintained refrigerated (41°F or lower)
  - ▶ Should have information about water source, any water sampling, soil sampling, fertilizer applications
- 

# Temporary food establishment

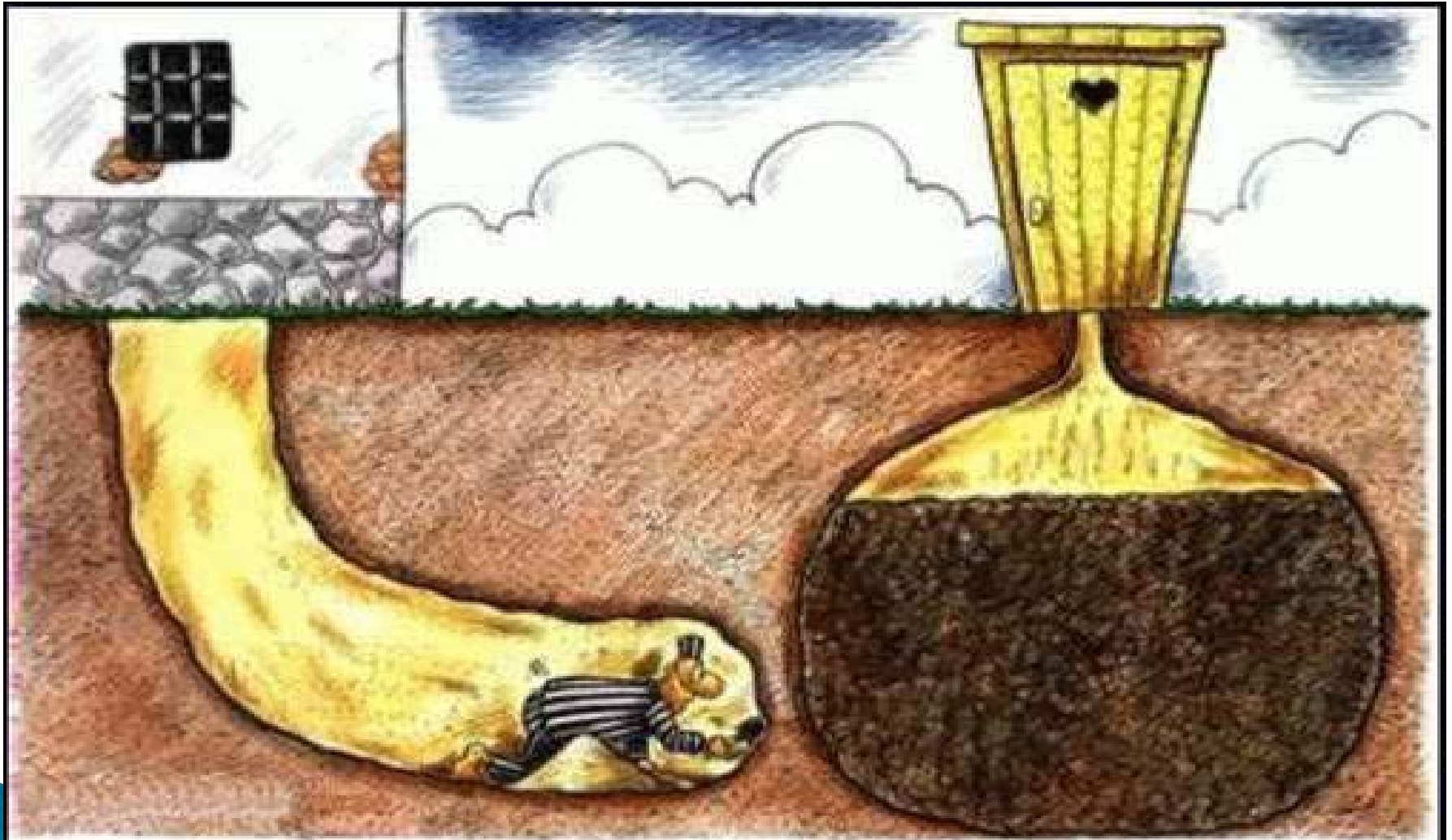


# Some Minimum Requirements

- ▶ Handwashing facilities
  - ▶ Method to avoid bare hand contact with ready-to-eat foods
  - ▶ Dish cleaning facilities
  - ▶ Thermometers
  - ▶ Wiping cloths for surfaces
  - ▶ Ways to keep hot foods hot and cold foods cold
  - ▶ Control for flies and other pests
- 



# Prepare, Prepare, Prepare



# More Information

- ▶ Patrick Guzzle, Food Protection Program Manager
- ▶ 450 W. State – 4<sup>th</sup> Floor, Boise, ID 83720–0036
- ▶ (208) 334–5936
- ▶ [guzzlep@dhw.idaho.gov](mailto:guzzlep@dhw.idaho.gov)
- ▶ <http://www.foodsafety.idaho.gov>