

Food Safety Laws and Their Effect On Food Marketing and Distribution

by

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Material covered:

1. The importance of food safety
2. Industry and public perception of problems
3. Dealing with the problems
4. Government regulations and guidelines
5. Using HACCP
6. Common problems in food distribution
7. Success in eliminating food poisoning and spoilage problems

I. What do consumers feel are problems?

Stats from council for agricultural science and technology - Ames, Iowa:

What consumers feel are problems with food poisoning:

Spoilage, 27; pesticides, 20; processing, 17; germs, 16; chemicals, 13; poor food handling, 10; bacteria, 3.

II. How do processors feel?

Microorganisms, 23; chemicals, 38; pesticides, 36; package reaction, 23; carcinogens, 23; mycotoxins, 22.

III. Bacteria responsible for food poisoning

Staphylococcus Clostridium botulinum
Salmonella Shigella

IV. "New" infections

Infections - listeria low temps can survive some pasteurizing methods (HTST, cottage cheese 135 F 30 min.) - Meningitis

Yersinia - appendicitis

Campylobacter - raw milk - destroyed by cooking

E. Coli - renal failure in children - raw milk, undercooked hamburger

V. HACCP - history, etc.

Developed in 1971 by U.S. Army labs in Natick, MA, National Aeronautics and Space Administration, Pillsbury Co., seven step - each with reference to preparation of tuna salad

Use flow chart - from receiving to service and use of leftovers.

VI. HACCP step 1

Raw materials - canned tuna, mayonnaise, celery, onions, etc., spices

Preparation tools - knives, dishes, cutting boards, hygiene of prep personnel

Storage facility - temperature

VII. HACCP step 2

Critical points -

1. Receiving of raw materials - package integrity, free of insects or extraneous material - visual
2. Cleaning and sanitation methods - check temps of dishwasher, strength of sanitizers
3. Personnel - be sure no cuts, clean clothing, hair restraints, gloves
4. Preparation methods - opening can - can opener operating properly
5. Storage - serving - temps and methods - personnel
6. Storage of leftovers - cover - store away from raw materials - avoid cross-contamination
7. Use of leftovers

VIII. HACCP step 3

1. Undamaged package, no insects or extraneous materials
2. Must meet standards (180 rinse temp (check temp of dishes 160+)), 50-100 PPM chlorine, 12.5-25 PPM iodophores, 200 PPM quats
3. No cuts, sores, diseases, proper dress
4. Can opener operating properly

5. Temps food <45 F, gloves

6. Temps <45 F no cross contamination

7. Treat as above

IX. HACCP step 4

1. 1-7 must assign person responsible to check each and to check condition - use of check list here recording temps where necessary

X. HACCP step 5

1. Reject
2. Report and correct temps
3. Replace worker or adjust dress
4. Fix/replace equipment
5. Correct methods, temperatures
6. Correct - with temps, determine how long out of specs and decide on action
7. Same as above

XI. HACCP step 6

Develop a record keeping method - and use statistics

XII. HACCP step 7

1. Record keeping
2. Use microbial methods to check temperature control, methods, etc.

XIII. Problems HACCP can control

1. The biggest - 90+ % of cases of food poisoning can be traced to some poor temperature control danger zone 45-140 F
2. Cross-contamination - keep raw away from prepared

3. Personal hygiene

- a. Persons with communicable diseases not working in food prep
- b. Food handlers clean and no jewelry
- c. Heads covered, fingernails clean and short
- d. Gloves worn when possible - clean hands and dipped in disinfectant
- e. Don't touch mouth, hair, other body parts during food handling and wash after
- f. Don't smoke, eat, etc. during work in work area
- g. no pets, other animals
- h. After use of handkerchief, wash hands - confine sneezes, coughs to handkerchief
- i. No cloths for cleaning - disposable towels
- j. Foods which appear unwholesome should not be handled - deliveries, etc.

XIV. How to succeed - simple

1. Incorporate HACCP and HACCP training
2. People trained and certified in food sanitation/food science and technology - develop a self-inspection program and use a consultant to do microbial testing to assure effectiveness of your program. Use your local board of health.
3. Easy - common sense and application of scientific knowledge

XV. Without a safety program

1. Risks of selling unwholesome food
2. Legal procedures associated with unsafe food
3. Economic loss due to legal fees and spoilage

XVI. Advantages of an organized food safety program

1. Elimination of food poisoning threats and any legal problems associated with such
2. Increase of shelf life and reduction of food spoilage
3. Good relations with regulatory agencies - local, state and federal
4. Increased profits