

COOPERATIVE EXTENSION SERVICE  
U.S. DEPARTMENT OF AGRICULTURE  
KANSAS STATE UNIVERSITY  
MANHATTAN, KANSAS 66506—3403

FOOD SAFETY NEWS



RESEARCH AND EXTENSION

# Food Safety

NEWS

Food Safety CURRENT NEWS

## Kansas Food Code: Foodservice and Retail Food Code

Noted below are some of the more important changes from the 1976 Food Code to the current Kansas 1999 Food Code that became effective August 13, 1999.

1. **Demonstration of Knowledge:** The person in charge must be able to demonstrate knowledge of foodborne disease prevention, application of HACCP principles and requirements of the code. This may be demonstrated by compliance with the code, or by having passed an approved food protection program (such as ServSafe), or by responding correctly to the inspector's questions. (2-102.11)
2. **Ill Food Workers:** The person in charge needs to know when to restrict, or exclude food handlers and when to report illnesses to the regulatory authority. (2-201.11- 2-201.15)
3. **No Bare Hand Contact With Ready-To-Eat**

4. **Cold Holding Temperature:** Maintaining temperatures of 41°F to 45°F will be allowed for another 10 years if the refrigeration equipment is not able to maintain 41°F. (3-501.16(c) (2))
5. **Date Marking:** Refrigerated, Ready-To-Eat, Potentially Hazardous foods — prepared and held refrigerated for more than 24 hours — must be date-marked. These items will be marked with the "consume by" date, allowing seven days if held at 41°F, or four days if held at 45°F. This also applies to commercially processed and packaged, Refrigerated, Ready-To-Eat, Potentially Hazardous food, when the original container is opened. (3-501.17)
6. **Time as a Control:** Holding temperatures

- do not need to be maintained if time is used as the control. The following conditions must be met: 1) The product must be marked when it is removed from temperature control. 2) The product will be cooked and served or discarded within four hours. 3) Written procedures must be on file and available to the regulatory authority upon request. (3-501.19)
7. **Number of Toilet Rooms:** Two public restrooms are required if the establishment has seating for 20 or more. (Old requirement was for two restrooms if the business had 10 or more seats.) (5-203.12)
  8. **Cooling requirements:** From 140°F to 70°F within two hours, and from 70°F to 41°F within four hours, or within four hours if food is prepared using ingredients normally stored at room temperature. (3-501.14)
- (Related chart, page 2.)*

### Fight BAC! (TM) 2000 Calendar

The Partnership for Food Safety Education has created a Year 2000 Food Safety Calendar.

Suitable for holiday gift-giving, it features original art and the Fight BAC!™ messages tied to monthly food safety themes. In early October, look for a sample of the art, price and pre-sale ordering information on the Web site <http://www.fightbac.org>.

The calendar will be shipped in late November.

### On the World Wide Web

Titan Corporation  
(meat irradiation)  
[www.titan.com](http://www.titan.com)

International Bibliographic Information on Dietary Supplements (IBIDS) Database (information on supplements)  
<http://odp.od.nih.gov/ods/databases/ibids.html>

Dietary Supplements: Nutritional and Legal Considerations. Scientific Status Summary of the Institute of Food Technologies  
<http://www.ift.org>

K-State Research and Extension Food Safety Website  
[www.oznet.ksu.edu/foodsafety](http://www.oznet.ksu.edu/foodsafety)

### Upcoming Events

#### October 4-5

Serving Safe Food  
Wichita, KS  
Contact: Teresa Lang  
(316) 722-7721

#### October 12-13

Smoothing the Way  
for International Trade  
National Alliance for Food Safety  
Washington, DC  
Contact: Curtis Kastner  
(785) 532-1234

#### October 17-19

Food Safety Consortium  
Annual Meeting  
Grand Lake of the Cherokee, OK  
Contact: Curtis Kastner  
(785) 532-1234

#### November 17-18

Serving Safe Food  
Overland Park, KS  
Contact: Nada Thoden  
(913) 674-6300

#### January 3-7, 2000

Indoor Air Quality  
Manhattan, KS  
Contact: Larry Erickson  
(785) 532-4313

#### January 27, 2000

Registered Sanitarian Exam  
Wichita, KS  
Contact: John Davis  
(316) 268-8477



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*Karen P. Penner*  
Karen P. Penner  
Extension Specialist  
Food Science  
Animal Sciences and Industry  
kpenner@oz.oznet.ksu.edu  
(785) 532-1672

**Contributors**  
Karen P. Penner, Editor  
Professor, Food Science  
Animal Sciences and Industry  
R. Scott Beyer  
Poultry Nutrition and Management Specialist  
Animal Sciences and Industry

Curtis Kastner  
Associate Dept. Head  
Animal Sciences and Industry

Mary Glassburner  
Kansas Dept. of Health and Environment

Daniel Fung  
Professor, Animal Sciences and Industry

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Cooperative Extension Service  
K-State Research and Extension  
Animal Sciences and Industry  
216 Call Hall  
Manhattan, Kansas 66506

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## Deep-fry turkey for unique taste

Deep-frying turkey, a cooking method that originated in the South, is gaining popularity across the United States. Cooks claim a fried turkey has a unique taste, different from that achieved with conventional roasting methods.

Because the oil is heated to 350°F, certain safety precautions should be taken to ensure that the event is a fun experience. Deep-frying a whole turkey requires a 40-quart or larger pot with a basket, a burner and propane gas tank, and thermometers for both the cooking oil and the meat. Cooks should also have ready a fire extinguisher, safety glasses and extra pot holders. The deep-fryer should be placed outdoors on flat, stable ground. This cooking method should not be done indoors or on wood decks where a fire could get started. The cooking area should not be left unattended.

A smaller turkey, 10 pounds or less, is easier to handle. To serve more guests, fry two 10-pound turkeys instead of a single 20-pounder. Remember to wash hands, utensils, and anything else that comes into contact with the raw turkey. Determine the correct amount of oil by placing the turkey in the pot and adding water until it covers the turkey by an inch or two. Remove the turkey and mark the water level in the pot. Remove all water from the pot, and be sure the turkey is completely thawed and dry, since water causes oil to boil vigorously.

Fill the pot to the mark with cooking oil. Using too much oil creates the risk that the oil might spill over and start a fire when the turkey is placed in the pot.

(continued on page 3)

## Food Safety RESEARCH

### Americans accept high-tech food applications

America has a high percentage of technology enthusiasts. More than 70 percent report being at ease with self-service gas, VCRs, ATMs and voice mail. As the American food system embraces high-tech applications of genetic engineering and food irradiation, technology enthusiasts will influence acceptance.

U.S. consumer support for agricultural and medical biotechnologies has increased in the past few years. Today, 72 percent

support agricultural biotechnologies (up from 66 percent in 1996) and 90 percent support medical biotechnology (up from 83 percent). Producing food that has less fat or more vitamins, as well as crops that permit reduced pesticide use are viewed as more acceptable than plant breeding. Food uses of biotechnologies are seen by consumers as more acceptable than use of technologies to produce human insulin.

Seventy-five percent

believe biotechnologies will provide personal family benefits in the next five years. About two-thirds report they would be willing to buy genetically engineered produce modified to taste better or fresher.

Europeans, on the other hand, are less accepting: Sixty-one percent of those surveyed report that they avoid products that contain modified ingredients.

—Source: *Food Tech*, 53(8) 1999.

### New meat irradiation plant uses electron beam

Pasteurization may become as common for meat as for milk products. Sioux City, Iowa, soon will be home to a food irradiation plant being built by the Titan Corporation. It will use electron-beam (E-beam) irradiation to pasteurize up to 400 million pounds of ground beef per year, along with chicken, fish, processed

foods and packaged meats. The plant is expected to be ready by the end of 1999.

Titan E-beam systems are used elsewhere to sterilize medical products. The Titan Surebeam system provides 1.5 kilograys of radiation, which eliminates *E. Coli*, *Listeria*, *Campylobacter* and other pathogens. The process takes less than

30 seconds and product temperatures rise less than 1°F.

As a power source, the E-beam system uses electricity instead of radioactive cobalt, which produces gamma irradiation. E-beam pasteurization at this low level does not change meat taste or texture.

—Source: *Food Tech*, 53(8) 1999.

#### Temperatures: Kansas 1999 Food Code Update - Foodservice and Retail

165°F	cooking temperature	poultry, reheating
155°F	cooking temperature	ground beef, comminuted meat, ratites
*145°F	cooking temperature	pork, beef, fish and other PHF's
140°F	hot holding	
45°F	cold holding (for old equipment for the next 10 years)	
*41°F	cold holding	

\*New temperature requirements

Source: Kansas Department of Health & Environment Bureau of Consumer Health

## Safety of dietary supplements studied

The Dietary Supplement Health and Education Act (DSHEA) of 1994 amended the 1958 Food Additive Amendments to the Federal Food Drug and Cosmetic Act. The act defines a dietary supplement as "a product, other than tobacco, intended to supplement the diet that contains at least one or more of the following ingredients: a vitamin, a mineral, an herb or other botanical, an amino acid, or a dietary substance for use to supplement the diet by increasing the total dietary intake; or a concentrate, metabolite, constituent, or extract or combination of any of the previously mentioned ingredients."

The DSHEA permits use of ingredients in supplements that have been in the food supply or marketed as supplement ingredients prior to 1994. FDA approval is not required before products are marketed. The manufacturer is responsible for making sure supplements are safe, but the FDA has the burden of showing a product is unsafe or mislabeled before restricting it.

Since the law was enacted, a number of product recalls have been conducted. Several deaths have been attributed to supplements containing ephedra, an herb. The FDA

#### Examples of Dietary Ingredients Defined as Supplements by the DSHEA of 1994

Ingredient	Examples
Vitamin	Folate, biotin, pantothenic acid, thiamin, riboflavin, niacin, vitamins A, D, E, C, B <sub>6</sub> , B <sub>12</sub>
Mineral	Copper, chromium, iodine, calcium, iron, zinc, magnesium, manganese, selenium
Herb or other botanical	Milk thistle, capsicum, valerian, yohimbe, guarana, garlic, ginkgo, chamomile, dandelion
Amino acid	Lysine, tryptophan, cysteine, isoleucine, valine, methionine
A supplement used to increase total dietary intake	Fish oil, blue-green algae, bee pollen, bone meal, melatonin
Concentrates, metabolites, constituents or combinations	Allicin (from garlic), ginkgo ginsenosides, bilberry extract, chamomile tea

has in place a system to report problems related to dietary supplements. The agency also maintains a searchable database on the Internet: <http://vm.cfsam.fda.gov/~dm/aems.html>.

As of March 1999, supplement labels must include a "Supplement Facts" panel. In addition, four types of nutritional support claims are allowed. Statements may: 1) reflect a benefit related to a classical nutritional deficiency, 2) describe the role of a nutrient or ingredient intended to affect the structure or function in humans, 3) document the mechanism of how the nutrient or ingredient acts, and 4) state general well-being from consuming the nutrient or ingredient.

Safety issues regarding supplements include over-

fortification with vitamin C and vitamin B<sub>6</sub>, high iron levels that may cause cell damage and increased fat oxidation, and hemochromatosis. Excess protein intake can cause increased calcium excretion, and tryptophan supplements and other amino acid combinations have caused EMS, elevated white blood cells and severe muscle pain.

Safety issues include oversupplementation of certain vitamins and minerals, problems with tryptophan and mixtures of amino acids, use of botanicals not derived from plants typically used for food and whose safety has not been established, impurity of certain ingredients, and use of hormone products derived from either plant or animal sources.

—Source: *Food Tech* 53(7) 1999.

## Turkey ...

(continued from page 2)

Preheat the oil to 350°F. (Peanut oil is preferred for flavor.) Remove the skin if desired, but never stuff turkeys when deep frying.

When the oil is ready, place the turkey in a basket and slowly lower it into the oil. (Avoid splashing!) A whole turkey normally requires only three minutes per pound to cook! Test the internal meat temperature with a thermometer. The cooked turkey should reach 170°F in the breast and 180°F in the thigh.

After cooking, set the turkey aside for a few minutes to allow the oil to drip off. Surprisingly little oil will be absorbed, except by the skin. To reduce fat, remove skin before serving. A properly cooked, deep fried turkey will have a golden brown color, and will add a twist to the traditional oven-roasted turkey.

#### Internet links:

##### Turkey Producers

<http://www.honeysucklewhite.com/>  
<http://www.butterball.com/>  
<http://www.jennie-o.com/>  
<http://www.theturkeystore.com/>  
<http://www.shadybrookfarms.com/>  
<http://www.norbest.com/>

##### National Turkey Federation

<http://www.turkeyfed.org/>

##### Frying Equipment

<http://www.barbour-int.com/>  
<http://www.inmotion-pcs.com/abacus/smokhous/>

##### Other tips and turkey trivia

(Kansas State University poultry page)  
[http://www.oznet.ksu.edu/pt\\_poultry/](http://www.oznet.ksu.edu/pt_poultry/)  
 (USDA consumer turkey publications)  
<http://www.fsis.usda.gov/OA/pubs/countdown/>