



Food Safety

Food Safety CURRENT NEWS

Down on the Farm

On the Web

E. coli O157:H7

www.cdc.gov/ncidod/publications/brochures/e_coli.htm

www.epa.gov/safewater/ecoli.html

www.exnet.iastate.edu/foodsafety/ecoli.html

Salmonella

www.cdc.gov/ncidod/publications/brochures/salmon.htm

www.exnet.iastate.edu/Pages/families/fs/salmon.html

www.cdc.gov/ncidod/dbmd/diseaseinfo/salmonellosis_g.htm

Foodborne Illness in Summer

www.fsis.usda.gov/OA/pubs/illpeaks.htm

Fish Food Safety

www.ces.ncsu.edu/depts/foodsci/agentinfo/sea/conspub.htmlhgic.clemson.edu/factsheets/HGIC3508.htm

www.ext.nodak.edu/extpubs/yf/foods/ncr526w.htm

K-State on the Net...

www.oznet.ksu.edu/fnd

4-H Food Safety

www.oznet.ksu.edu/foodsafety/4h.htm

General Food Safety

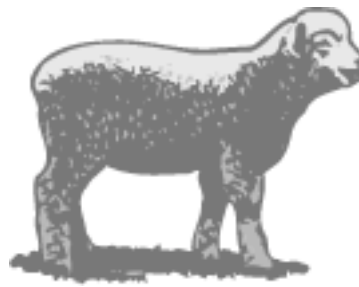
www.oznet.ksu.edu/foodsafety/welcome.htm

www.oznet.ksu.edu/extrapidresponse/foodsafety.htm

Have your children been on a field trip to a farm? These visits are fun for kids because of direct contact with farm animals. Unfortunately, outbreaks of *E. coli* O157:H7 have been reported in Pennsylvania and Washington in school children who visited farms. These outbreaks occurred in the spring and fall of 2000. The outbreaks resulted in 56 illnesses and 19 hospitalizations.

In Pennsylvania, 75,600 visitors to a dairy farm were allowed to touch cattle, calves, sheep, goats, llamas, chickens and a pig. They were also allowed to eat and drink while interacting with the animals. Handwashing facilities were inadequate.

Symptoms began in 51 persons within 10 days of visiting the



farm. The symptoms included bloody diarrhea, fever and vomiting.

The public is no longer allowed to visit this farm.

In Washington, approximately 300 children went to a local farm. They were allowed to handle poultry, rabbits, and goats. Goats, chickens, and a calf were in a pen and could be touched through the fence. The

children brought their own lunches to eat at the farm. Symptoms of illness occurred in five children. The symptoms included abdominal cramping, diarrhea and bloody diarrhea. Three of these children were hospitalized with one developing hemolytic uremic syndrome (HUS). This farm had recommended that visitors bring antibacterial wipes to wash their hands. They also had a central sink to rinse hands. After this outbreak, the farm distributed instructional material to wash hands after touching animals, and they installed handwashing stations with soap and water.

These outbreaks are the first to be associated with transmission of *E. coli* O157:H7 from farm animals to humans. To reduce these types of outbreaks from farms,

■ See Farm page 2

Mexican Vanilla Update

In our April 2001 issue, we talked about the safety of Mexican vanilla. Since then, some new information has been found. It is important to check the labeling of Mexican vanilla. There are some reputable manufacturers of Mexican vanilla, in Mexico, who make sure that coumarin is not an ingredient. Some manufacturers state that their product is "coumarin free." Be sure to read the labels. If the

label has minimal information or no ingredient statement, do not purchase the vanilla.

FDA's standard of identity for vanilla products specifies that only vanilla beans be used to make vanilla extract, concentrates and powders for use in food. Any product labeled as vanilla flavoring or extract and sold in the United States must meet the government standard. Flavors that don't meet the standard must

be labeled as "imitation" vanilla and still must be made from safe and suitable substances. Artificial vanilla flavoring (vanillin) is manufactured from lignin, the woody material in plant stems. The lignin is treated so that it releases a substance very similar in chemical structure to the vanilla compound produced by vanilla beans. Each batch of vanilla is tested for purity before it can be sold.

Tornado Food Safety

After a tornado, the water supply may be disrupted. Follow these tips to consume safe drinking water and food.

- Drink only approved or chlorinated water.
- Consider water from a well, cistern or other delivery systems unsafe until tested.
- Check foods and discard any containing glass particles or other debris.
- Discard canned foods with any damage such as dents, broken seams, etc.

Electricity will most likely be out for a period of time. Always use an appliance thermometer in the refrigerator and freezer to monitor temperatures. Discard the following foods if stored above 40°F for more than 2 hours:

- Meat, poultry, fish, eggs and egg products, raw or cooked
- Milk, cream, yogurt and soft cheese
- Casseroles, stews or soups
- Lunch meats and hot dogs
- Creamy-based salad dressings
- Custard, chiffon or cheese pies
- Cream-filled pastries
- Refrigerator and cookie doughs
- Discard opened mayonnaise, tartar sauce and horseradish if above 50°F for more than 8 hours.

The following products can be saved at room temperature for a few days:

- Butter or margarine
- Hard and processed cheese
- Fresh fruit and vegetables
- Dried fruits and coconut
- Opened jars of vinegar-based salad dressings, jelly, barbecue sauce, mustard, ketchup, olives and peanut butter
- Fruit juices
- Fresh herbs and spices
- Fruit pies, bread, rolls and muffins
- Flour and nuts

Discard anything that turns moldy or has an off odor. Refreeze thawed foods that still contain ice crystals or feel cold.

Source: www.fsis.usda.gov/OA/pubs/tornado.pdf

Food Safety CURRENT NEWS

Kansas Food*A*Syst

*Kansas Food*A*Syst* is a confidential, self-assessment food safety program for the consumer preparing food at home and for the grower who direct markets. This program is developed and produced by K-State Research and Extension. It consists of a series of assessment charts, relevant information and resources, and a worksheet to organize improvements. The consumer booklet helps evaluate food safety risks in purchasing, storing and preparing food in the home kitchen. The producer manual evaluates the risks involved in growing and processing foods (both meats and produce) that will be marketed directly to the public.

For example, we know water quality is important for food processing, as well as for drinking, but what about the food safety risks if contaminated water is used in irrigating vegetables? What if the vegetable is lettuce — eaten raw and difficult to wash? Composted manure naturally fertilizes and enhances the soil, but it must be handled and applied carefully to avoid food contamination. It makes a difference when the manure is applied, how it is incorporated,

and what kind of crop is being fertilized. The food safety risk for lettuce fertilized with manure is higher than for soybeans fertilized with manure. How can you lower the risk?

We know that cooking food kills disease-causing organisms, but what about chemicals that may have dripped on it? Moving household cleaners out of food storage areas decreases the risk of chemical contamination. Even though the cooked food doesn't contain any bacteria, what if a knife was used to cut up raw meat before slicing the cooked food? How are the leftovers handled? What is a safe temperature to store seafood and how do you measure temperature?

Those interested in producing safe, good quality foods, can use *Kansas Food*A*Syst* to evaluate the risks that exist on the farm and in the home kitchen, then decide what to do to decrease those risks. Many environmental factors can compromise food safety. The assessments can be completed one at a time, or all together — it's up to the user. The main idea is to take the time to identify the risks that affect food safety, then decide what voluntary actions will

reduce those risks and prevent problems.

Completion of *Kansas Food*A*Syst* materials helps you accomplish three important objectives:

1. Identify situations and actions in your home or operation that affect food safety
2. Learn how to manage activities to decrease food safety risks
3. Take preventative actions to safeguard against future food safety problems

What are the benefits of *Kansas Food*A*Syst*? A comprehensive assessment of your food preparation habits or growing operation lays the foundation for future plans. The first step in lowering risk is being aware of what actions have high risk. Then you can plan ways to change or improve those actions. You can make confident decisions based on information.

*Kansas Food*A*Syst* risk assessments for producers is available in PDF formats on the Web at: www.oznet.ksu.edu/library/fntr2/samplers/FOODASYS.htm

The risk assessments for home food preparers will be on the Web soon.

Farm

continued from page 1

petting zoos, animal exhibits or other venues, there are several preventive measures that can be implemented.

1. Provide information to visitors before the visit about the risks of transmitting enteric pathogens from animals to humans.

2. Design the venue to minimize the risk of transmis-

sion. Since children are a high-risk group to contract these illnesses, interaction with animals should be supervised and away from food service areas.

3. Provide adequate handwashing facilities. This includes running water, soap and disposable towels. They should be accessible for children and adults.

4. Activities such as eating, drinking, smoking, carrying

toys, etc., should be avoided around the animal interaction areas.

5. People in high-risk groups such as children under age five, the elderly, pregnant women, and immuno-compromised persons should avoid handling farm animals.

6. Farms should not serve raw milk.

Source: www.cdc.gov/mmwr/preview/mmwrhtml/mm5015a5.htm

Foodborne Pathogen Transfer via Money

We've all seen it. We go to a restaurant and watch the employees who take our money, and then handle food. Have you ever wondered if bacteria can be transferred by hand to food after handling money? Researchers at the Center for Food Safety and Quality Enhancement and The Department of Food Science and Technology at the University of Georgia decided to find out.

Previous research has shown that 70% of U.S. currency is contaminated by bacteria. Of this amount, 13% of coins and 42% of bills contain potential pathogens. So for this study, the goal was to determine the likelihood that coins would transmit *E. coli* O157:H7 and *Salmonella*

Enteritidis directly to hands or food.

Pennies, nickels, dimes and quarters obtained from general circulation were obtained. They were soaked in detergent, washed, rinsed and air dried. They were then autoclaved to completely sterilize them. Small pieces of glass and Teflon were used as controls. All samples were then inoculated with the bacteria and allowed to completely dry under controlled conditions. They were held at room temperature and 40% humidity to simulate a room environment.

It was found that *E. coli* O157:H7 would survive 7, 9, and 11 days on pennies, nickels, and dimes and quar-

ters, respectively. However, *E. coli* O157:H7 died in 4 to 7 days on the control surfaces. *Salmonella* Enteritidis survived for 1, 2, 4, and 9 days on the surfaces of pennies, nickels, quarters and dimes, respectively. *Salmonella* Enteritidis survived at least 17 days on the control surfaces.

Because of these results, it is possible that coins can transfer bacteria to other surfaces due to their long survival rates. The results reiterate the fact that food handlers, either at a restaurant or at home, should always wash their hands thoroughly after handling currency and before handling food.

Source: *J. of Food Prot.*, Vol. 62, No. 7, 1999, pp. 805-807

Risk of Mercury in Fish

Seafood is an important part of a balanced diet. It contains high quality protein and other nutrients. It is also low in fat.

However, the FDA Center for Food Safety and Applied Nutrition (CFSAN) has issued an advisory for pregnant women and women who want to get pregnant about the risks of consuming fish. Some fish may contain high levels of a form of mercury called methylmercury. If certain fish are eaten regularly, the mercury could cause harm to the unborn child's developing nervous system.

Mercury occurs naturally in the environment. It is also released into the air through industrial pollution. When it falls from the air, it can get into surface water and eventually into streams and oceans. The water contains bacteria, which convert the mercury into the toxic form, methylmercury. Fish can absorb methylmercury as they feed on aquatic organisms.

How do you prevent harm to your unborn child and still enjoy fish? Nearly all forms of fish contain some level of methylmercury. This is not harmful to humans. But larger fish that live longer and eat other fish accumulate the highest levels of methylmercury. Pregnant women, nursing mothers and young children should avoid shark, swordfish, king mackerel and tilefish because of high levels of mercury.

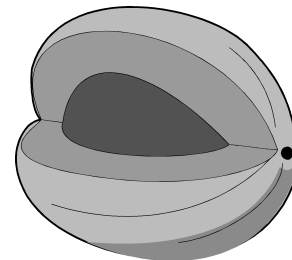
All other types of fish are safe to eat. The important point is to select a variety and limit the amount to 12 ounces per week. There is no harm in consuming more than 12 ounces per week, just not every week.

For more information about mercury in seafood, call 1-888-SAFEFOOD. This is a 24-hour food information hotline at FDA CFSAN.

Source: vm.cfsan.fda.gov/~dms/admehg.html

Scrub Your Cantaloupe!

Recently, there was an outbreak of Salmonellosis from eating cantaloupe in California and seven other states. The *Salmonella* strain was an uncommon type called *Salmonella poona*. The bacteria caused one death and at least 37 illnesses in the last two months. The cantaloupe are believed to originate in Mexico or South America. Symptoms of the illness include fever, abdominal cramps and diarrhea. They generally develop in one to three days of eating the food. Most people will recover within three to five days without medical attention. This illness can be life threatening to



young children, the elderly and the immunocompromised.

Because cantaloupes grow on the ground, they can easily become contaminated. Therefore, it is important to thoroughly wash them in water and scrub with a brush to remove dirt before cutting them open. After cutting the fruit, store in the refrigerator. It is always good practice to thoroughly wash all fruits and vegetables in plain water before consumption.

Source: *FSNet*, May 16, 2001

FAQs

Question: Are wild onions safe to eat?

Answer: Yes, they are safe to eat. However, there are plants that look like wild onions that are poisonous. To distinguish between the two, crush the leaves. If they smell like onions, they are safe to eat. If not, leave them alone!

Question: What is the recommended temperature to cook fish?

Answer: According to the USDA, there are no recommended temperatures. Therefore, use these methods to check for doneness of fish:

Fin Fish – Cook until opaque and flakes easily with a fork.

Shrimp, lobster, crab – Should turn red and flesh should become pearly opaque.

Scallops – Should turn milky white or opaque and firm.

Clams, mussels, oysters – Cook until shells open.

Source: www.foodsafety.gov/~fsg/fs-cook.html

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



June 2001

Volume 4, Number 3

Published Bi-Monthly by
K-State Research and Extension
Animal Sciences and Industry

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

Contributors

Karen P. Penner, Editor
Professor, Food Science
Animal Sciences and Industry

Karen Blakeslee
Rapid Response Coordinator
Animal Sciences and Industry

Judy Willingham, M.S.
K-State Research & Extension Associate
Animal Sciences & Industry

Sponsored in part by
Kansas Department on Aging

Cooperative Extension Service
K-State Research and Extension
Animal Sciences and Industry
216 Call Hall

Manhattan, Kansas 66506
K-State, County Extension Councils, Extension Districts,
and U.S. Department of Agriculture Cooperating

All educational programs and materials are available
without discrimination on the basis of race, color,
religion, national origin, sex, age, or disability.

June 19 & 20

Garden City

ServSafe
Finney County Fairgrounds
Contact: Linda Walter
620-272-3670

July 10 & 11

Wichita

ServSafe
Sedgwick Co. Extension Office
Contact: Teresa Lang
316-722-7721

July 17 & 18

Salina

ServSafe
Saline Co. Extension Office
Contact: Sherrie Mahoney
785-309-5850

July 6-13, 2001

Manhattan

Rapid Methods and Automation in
Microbiology Workshop XXI.
Contact: Dr. Daniel Y.C. Fung 785-532-5654

Upcoming Events

August 20 & 27

Independence

ServSafe
Mercy Hospital, Marian Hall
Contact: Linda Carr
620-331-2690

August 21 & 22

Overland Park

ServSafe
Kansas City Regional Office Training Ctr
Contact: Nada Thoden
913-764-6300

HACCP workshops for meat and
food processors planned for:

June 7-9, Manhattan, KS

July 7-9, St. Louis, MO

For more information contact Dr. Fadi
Aramouni 785-532-1668

September 14, 2001

Excellence in Food Science

Call Hall, KSU

Speaker: Dr. Carl Hoskeney

Topic: "Starlink Corn: A Lesson for
Biotech Crops"

September 2001

Food Safety Education Month

Theme: "Be cool. Chill out -- Refrigerate
promptly"