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http://www.colostate.edu/Orgs/safefood/

Colorado State University Cooperative Extension

Cooperative Extension, Colorado State University

SAFE FOOD NEWS

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SALAD GREENS: KEEPING *E. COLI* OUT OF THE MIX

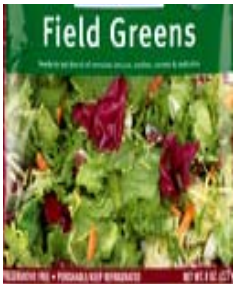
Highly publicized outbreaks of foodborne illness linked to spinach and lettuce in recent months have raised public awareness and caused consumer anxiety regarding the safety of popular salad greens. Last September, an outbreak of *E. coli* O157:H7 infection across more than 20 states prompted grocers and retailers to pull bagged spinach from their shelves, causing a scare among those who use conveniently pre-packaged spinach at home. According to the U.S. Food and Drug Administration (FDA), this outbreak affected 26 states, with 204 confirmed illnesses caused by *E. coli* infection, some quite severe. Three victims died, and 31 cases progressed to hemolytic uremic syndrome, a serious *E. coli*-related condition that often results in kidney failure.

Only weeks following the spinach scare, fresh lettuce was implicated in an *E. coli* outbreak affecting people in seven states. In late 2006, yet another fresh produce-related outbreak of *E. coli* infection was linked to Taco Bell restaurants in Pennsylvania, New Jersey, New York, Delaware, and South Carolina. By year's end, 71 confirmed cases in these 5 states were linked to lettuce from Taco Bell restaurants. During the outbreaks, pre-packaged spinach and salad mixes were temporarily removed from grocery store shelves, and consumers were urged to avoid fresh spinach and some lettuce until the FDA determined these products safe to eat.

Although *E. coli* contamination traditionally has been associated with undercooked meats such as ground beef, it can be very problematic in fresh produce, such as spinach, lettuce, and raw sprouts, and in unpasteurized juices as well. The recent spinach outbreak was the 20th such episode of foodborne illness caused by spinach or lettuce since 1995. The main symptom of *E. coli* infection is diarrhea, often with bloody stools and accompanied by stomach cramps. For most healthy people, illness clears up on its own, but for children, the elderly, and others with

compromised immune systems, infection can result in kidney failure and even death.

Pre-packaged greens and salad mixes have become increasingly popular for both convenience and, ironically, safety reasons, and now make up 80% of the lettuce and spinach market. However, the production process can be a source of contamination. When greens are cut in the field rather than left whole, the outer, protective layers are discarded, steps which can introduce contamination. In addition, potentially contaminated greens can be mixed with clean ones during packaging. Finally, although packages are often labeled with the reassuring phrase "triple-washed," the pre-washing procedures used are not 100% effective in eliminating all contaminants, even when done correctly. Therefore, consumers are at risk of eating contaminated greens while assuming that bagged, "pre-washed" produce mixes are safe.



Experts have differing opinions about the effectiveness of washing bagged greens at home before use. Some believe that harmful bacteria may be too deep in the crevices or leaves of greens for re-washing to be effective. According to Scientific Certification Systems, a company that audits industry practices, washing at home removes only 60-90% of microbes on produce surfaces. In addition, supermarket produce washes are thought to be minimally effective and work only as well as tap water. Other experts suggest that it can't hurt to rinse greens from pre-washed packages as an extra safety measure, provided that kitchen surfaces and hands are clean.

The only sure way to destroy bacteria on produce such as spinach is by cooking or boiling, although this isn't an appetizing option for lettuce. Spinach and other greens must be cooked at 160 degrees F for at least 15 seconds in order to kill bacteria. If microwaved, the food should be stirred part way through cooking to help evenly distribute heat. For uncooked greens, purchasing fresh, unpackaged greens may be a better option than pre-packaged mixes. Removing the outer leaves from heads of leafy greens can help to remove bacteria, although this step should also be followed by a thorough rinse under running water. For now, consumers are not being advised to stop eating salad greens, but should follow handling precautions recommended by the FDA and Centers for Disease Control and Prevention (CDC) to help avoid foodborne illness from these foods. For uncooked greens, the following selection and handing tips are recommended:

- Buy only fresh-cut produce and bagged salads if refrigerated or surrounded by ice.
- Place lettuce and other raw fruits and vegetables in bags and keep separated from raw animal products.
- Store perishable fresh fruits and vegetables (like strawberries, lettuce and mushrooms) or pre-cut or peeled produce in a clean refrigerator at 40°F or below.
- Wash fruits and vegetables under running water just before eating, cutting or cooking, even if you plan to peel them.
- Scrub firm produce, like melons and cucumbers, with a clean produce brush. Let air dry before cutting.

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1. United States Food and Drug Administration Website. *Nationwide E. Coli O157:H7 Oubreak: Questions and Answers.* Available at: http://www.cfsan.fda.gov/~dms/spinacqa.html.
2. United States Centers for Disease Control and Prevention Website. *Multi-State Outbreak of E. coli O157:H7 Infections from Spinach.* Available at: http://www.cdc.gov/ecoli/2006/September/.
3. *Tufts University Health & Nutrition Letter,* December 2006, pp. 1-3.
4. United States Centers for Disease Control and Prevention Website. *Multistate Outbreak of E. coli O157:H7 Infections, November-December 2006.* Available at: http://www.cdc.gov/ecoli/2006/december/121406.htm.

FOOD SAFETY HITS THE HIGHWAY: TRANSPORTATION CONCERNS

Problems related to food safety and illnesses caused by food are often focused on the beginning or end of the food chain (the farm or the table, as some would say). Often overlooked in importance is the transportation process that brings food from its origin to the consumers who use it. Food travels from the producer, to one or more processors, to the distributor, to the seller, and finally to the consumer, creating a path with many steps at which food safety precautions must be considered. Currently, there are no required standard regulations at each step, so it is difficult to ensure that sufficient procedures are in place to keep food safe during transport. According to the United States Department of Agriculture (USDA), there are regulations at the local, state, and federal levels that apply to certain general aspects of transportation, but specific guidelines for the safe transport of food products are still a work in progress. In the United States, the most closely related guidelines in place are for the humane treatment of animals during transport.

New Guidelines

The Food Safety and Inspection Service (FSIS), a branch of USDA, recently has developed guidelines for safe handling of food products during transportation, outlined in a report titled "FSIS Safety and Security Guidelines for the Transportation and Distribution of Meat, Poultry, and Egg Products." These guidelines focus on preventing contamination of meat, poultry, and eggs during loading, transport, and unloading. There are two main sections in this report, which is targeted toward shippers, receivers, and food transporters. The first section highlights general food safety measures to prevent contamination of meat, poultry, and eggs during transport, while the second section focuses more specifically on security measures related to terrorist activity. Both sections cover all points of transport, from production to retail.

Report Highlights

The FSIS report suggests that food safety during transport can be maintained with prevention of contamination at various steps. For example, maintaining refrigeration temperatures cold enough during loading and unloading is especially critical in keeping food safe. Another key guideline states that vulnerable points in the transportation process should be identified, for which processors, distributors, and others involved need to have a comprehensive sanitation and safety plan. FSIS also recommends thorough training for any personnel involved in food transport and handling, as well as development and proper execution of a comprehensive system for keeping food safe. Additionally, the FSIS report covers vehicle design and sanitation, pre-loading and loading procedures, in-transit safety measures, unloading procedures, emergency operations, employee screening, and facility security.

Security Concerns

Because the FSIS guidelines are just recommendations rather than enforced rules for food transporters, the lack of standard requirements for food transport is somewhat unsettling. Concerns over secure transportation of food are becoming more prominent with increased discussion of bioterrorism as a valid food safety threat. Transport of food across national borders is of particular concern to government officials. The U.S. Bioterrorism Act has recently outlined new requirements for food products imported from outside the country.

Within the U.S., safe transport of food domestically is also increasingly important. According to the USDA, trucks carry 80-90% of all consumer products within the U.S., including food products. Since most of what we eat is likely carried on a truck at some point, it is reassuring that commercial trucking has not yet been indicated as a source in any major foodborne illness outbreak. As government officials continue to work on maintaining and improving the safety of the food transportation industry, the FSIS guidelines provide a basis for what some day may become future requirements in the United States.

Sources:

1. Doering, R.L. "Keep on Truckin': Transportation is often the missing link in food safety," April 20, 2006. United States Food Safety Research Information Office website, available at: http://fsrio.nal.usda.gov/news_article.php?article_id=3320.
2. USDA Food Safety and Inspection Service. *FSIS Safety and Security Guidelines for the Transportation and Distribution of Meat, Poultry, and Egg Products.* February 14, 2006. Available at: http://www.fsis.usda.gov/PDF/Transportation_Security_Guidelines.pdf.

Safety Concerns About Raw Milk

For many, milk is an important source of nutrients and a regular part of the daily diet. Because raw milk naturally contains bacteria, some of which may be pathogenic, most of the milk we drink is pasteurized for safety. In recent years, however, there has been increasing interest in raw milk among some consumers due to supposed beneficial health claims made by raw milk advocates. Proponents of raw milk suggest that pasteurization destroys nutrients, enzymes that facilitate calcium absorption, and beneficial bacteria present in milk. They also claim that pasteurized milk is associated with or even causes allergies. The website RawMilk.org, which serves supporters of raw milk, suggests that pasteurization alters and destroys proteins, vitamins, minerals, enzymes and other nutrients, and that toxins are formed in their place. As for the benefits of raw milk, advocates claim that it promotes calm nerves, eliminates poisons and toxins from the body, reverses malnutrition, and promotes overall good health, among other effects. However, the Food and Drug Administration (FDA) maintains that drinking raw milk is dangerous and can cause serious foodborne illness.

Raw milk and other milk-based products naturally contain both beneficial and pathogenic bacteria. The harmless bacteria, such as *Lactobacillus,* help produce yogurt and other dairy foods and have a role in promoting gastrointestinal health. Unfortunately, milk also may contain pathogenic or harmful bacteria such as *Listeria monocytogenes, Campylobacter jejuni, E. coli* O157:H7, and *Salmonella.* These bacteria can be shed by animals into milk at the farm, and since milk is a nutritionally complete substance, it becomes an ideal environment for bacterial growth. Infections from these pathogenic bacteria, especially in persons with compromised immune systems, can cause severe diarrhea, cramps, fever, nausea, vomiting, headache, and dehydration. Infections in children, the elderly, and others with compromised immunity can be particularly severe and can lead to complications such as hemolytic uremic syndrome.

Because of the dangers of pathogenic bacteria, most milk is treated by pasteurization, which was originally developed to kill the bacterium that causes tuberculosis. Pasteurization is a heat treatment used to kill harmful bacteria and bacteria that cause spoilage without changing the milk's nutritional content, flavor, or quality. Pasteurization kills bacteria that cause tuberculosis as well as salmonellosis, diphtheria, typhoid fever, and other illnesses. Following production and packaging, rapid cooling of the milk and storage below 40 degrees F help prevent milk spoilage and keep treated milk safe to drink. Despite the claims of raw milk advocates, the FDA and other public health agencies have stated that there is no known significant nutritional difference between unpasteurized and pasteurized milk, and that treated milk still provides the nutrients found naturally in raw milk. According to the FDA, the benefits of killing harmful bacteria outweigh any health benefits claimed by raw milk advocates, and recent outbreaks of foodborne illness associated with untreated milk have helped to renew public awareness of the dangers of raw milk consumption.

In a 2002-2003 outbreak of *Salmonella* Typhimurium, 62 people in Illinois, Indiana, Ohio and Tennessee became ill after consuming raw milk sold in Ohio. The milk producer linked to the outbreak later relinquished its license for raw milk sales following a recommendation from the Ohio Department of Agriculture. In Washington state, an outbreak of *E. coli* O157:H7 infection in late 2005 was linked to raw milk and caused serious illness in eight people, several of whom were hospitalized. Washington State health authorities linked the outbreak to locally sold raw milk and ordered the unlicensed provider of the milk to close. In another case, five people became ill with *Campylobacter* infection in early 2005 after drinking raw milk linked to a dairy in Larimer County, Colorado. The direct sale of raw milk is illegal in Colorado, but consumers may still buy shares in dairy cows. Raw milk from a shared cow likely caused the 2005 outbreak, according to the Colorado Department of Public Health and Environment.

In cases such as these, raw milk can cause severe illness and related complications, especially for individuals with compromised immune systems. However, there are regulations in place to protect consumers from the dangers of raw milk. At the federal level, the FDA provides regulation for the treatment and processing of raw milk into pasteurized milk and other dairy products

through the National Conference on Interstate Milk Shipments "Grade A" program. This program, a cooperative effort between the FDA and all 50 states, helps to regulate standard milk regulations and milk safety. The FDA's related code of regulations is listed in the Pasteurized Milk Ordinance, or PMO, which states can adopt individually for their own policies. As part of the "Grade A" program, farms and products must undergo inspections and are assigned ratings by state and FDA personnel.

In addition, federal law requires that milk shipped across state lines for sale at retail stores must be pasteurized. However, within each state, regulations are up to local governments, and some states allow raw milk to be sold. In some states like Colorado, where the sale of raw milk is illegal, consumers can get around the law by "cow sharing" – group members pay a fee to a farmer to purchase a cow and use the raw milk. Other states, like Wisconsin, have banned cow sharing following an outbreak of *Campylobacter* infection linked to raw milk from cow sharing.

Despite the possible health benefits touted by raw milk advocates, the FDA and other public health officials advise consumers to avoid drinking beverages or eating foods made with unpasteurized milk, including raw milk soft cheeses from any source. It is especially important for persons with reduced immunity - the young and elderly, pregnant women, or those with diseases that compromise immune function – to avoid raw milk products and to have the best information available regarding the risks of raw milk.

References

1. Articles posted on http://www.rawmilk.org, December 2006.
2. Sheehan, J.F. (2005). On the Safety of Raw Milk (with a word about pasteurization). United States Food and Drug Administration (FDA) website, available at: http://www.cfsan.fda.gov/~ear/milksafe.html.
3. Cornell University Dairy Science Factsheet. *Why pasteurize? The dangers of consuming raw milk.* Department of Food Science, Cornell University, Ithaca, NY, 2002.
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5. Multistate outbreak of *Salmonella* serotype Typhimurium infections associated with drinking unpasteurized milk – Illinois, Indiana, Ohio, and Tenn, 2002-2003. MMWR 2003: 52(26); 613-615.
6. Washington State Department of Health website. E. coli Outbreak in Southwestern Washington Highlights Risks of Raw Milk. Available at: http://www.doh.wa.gov/Publicat/2005_news/05-164.htm.
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SUCCESS STORY: FOOD SAFETY TRAININGS FOR FOOD BANK MEMBER AGENCIES

Employee food handler training has extended well beyond the realm of retail food establishments. Food safety is rapidly becoming an integral part of programs that provide food to the hungry. Cooperative Extension agents can be an excellent community resource to collaborate in this effort. In this issue, we would like to spotlight Jane Frobose, Colorado State University Denver County Extension agent, who has been providing ongoing safe food handler trainings with Metro Denver food bank member agencies for 2 years now.

Colorado Hunger

Food banks and food distribution agencies, pantries and sites play a critical role in addressing the food security concerns of people and communities in need. In Colorado alone, 11% of the population lives in poverty – which amounts to nearly 500,000 individuals. In addition, Colorado ranks 5th among all states for rising food insecurity rates, with a 31% increase in food insecure households from 1999 to 2004. Food security and hunger concerns are clearly a problem in Colorado and across the country.

Food Bank of The Rockies works to address these issues. As part of America's Second Harvest, the largest charitable hunger-relief organization in the United States, Food Bank of the Rockies is one of the 200 member food banks and other food assistance organizations nationwide, serving all 50 states and Puerto Rico. This network distributes close to 2 billion pounds of donated food to those in need each year. In 2006, America's Second Harvest provided food for 25 million low-income people in the U.S.

In Colorado, the Food Bank of The Rockies supports food assistance each day to needy children, seniors and families to meet basic needs through programs including *Fighting Hunger Feeding Hope, Denver's*

Table and *Kids Café.* Food Bank of the Rockies is the central distribution site serving 919 hunger-relief programs in metropolitan Denver, northern Colorado and Wyoming. These programs are the "frontline between health and happiness versus hunger and despair." Last year, the Food Bank distributed 20.5 million pounds of food in Colorado – enough to provide 43,000 meals every day.

Agency Trainings

Colorado Food Bank of The Rockies is required to maintain food safety credentialing for its volunteers, employees and agencies. To help meet this certification need, Jane Frobose took the lead in adapting an existing ***Food Safety Works*** safe food handler training program. She has now reached over 300 individuals to date facilitating the new ***Food Safety Works for Food Bank Member Agencies*** on a monthly basis. In addition to teaching safe preparation, holding and serving of food, (needed by workers in soup kitchens, etc.), the 3-hour interactive training also addresses safe storage and shelf life issues specific to those working in food pantries and distribution sites.

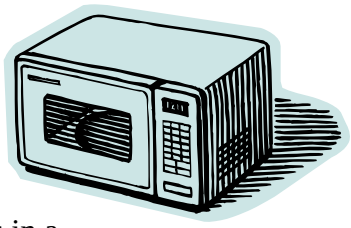
On average, the program has achieved a 78% increase in participant knowledge of foodborne illness risk factors, hand washing procedures, cross-contamination, safe food temperatures, sanitizing procedures, and product storage. In addition, the ***Food Safety Works*** program has helped meet the Healthy People 2010 goal to improve food handler behaviors and practices that relate to food safety.

Interest is growing to offer ***Food Safety Works for Food Bank Member Agencies*** in other communities. Through collaborative efforts such as those Jane Frobose has established in the Metro-Denver area, similar networking can help meet the food safety needs of agencies and groups that serve the food insecure throughout Colorado and elsewhere.

IN THE NEWS

MICROWAVES ZAP GERMS IN SPONGES

Dishcloths and sponges are known to breed harmful bacteria such as *E. coli* and *Salmonella*, potential sources of foodborne illness. Food safety experts have deliberated for years as to which is safer for kitchen clean-up. The debate may no longer matter, now that University of Florida researchers have discovered the germ-fighting abilities of a microwave oven.



Led by Gabriel Bitton, professor of environmental engineering, the research team found that placing wet sponges or scrubbers on high power for 2 minutes in a microwave oven can effectively zap microorganisms of all sorts. Although dishwashers are commonly used by consumers to clean sponges and scrubbers, the microwave is far superior according to these researchers.

The scientists soaked sponges and scrubbing pads in untreated wastewater containing fecal bacteria, viruses, protozoan parasites and bacterial spores (including Bacillus cereus spores which are quite resistant to radiation, heat and toxic chemicals, and are notoriously difficult to kill). They also used bacterial viruses as substitutes for disease-causing viruses, such as hepatitis A. They then used a microwave oven to zap the sponges and scrub pads for varying lengths of time, wringing them out and checking for microbes after each test.

The results were clear. Two minutes of microwaving on full power mode killed or inactivated more than 99 per cent of all the living pathogens in the sponges and pads. The Bacillus cereus spores required four minutes for total inactivation. Professor Bitton said the heat, rather than the microwave radiation, was the most likely cause of death for the pathogens. As the microwave works by exciting water molecules, it is important to put wet rather than dry sponges or scrub

pads into the oven. Wetting the sponge first will also prevent the sponge from catching on fire.

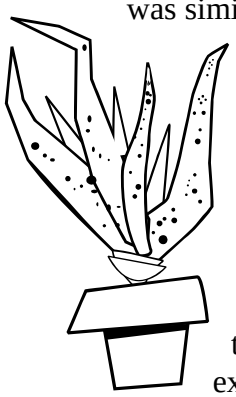
It appears that the microwave is a very powerful and an inexpensive tool for sterilization. Because kitchen cloths/sponges are an ideal breeding ground for microbes, Bitton suggests that cooks should microwave these items every other day.

Source:
Park, D.K., Bitton, G., Melker, R. (2006). Microbial inactivation by microwave radiation in the home environment. *Journal of Environmental Health*, 69(5), 17-24.

ALOE VERA IMPROVES PRODUCE QUALITY AND SAFETY

Aloe vera is a tropical and subtropical plant that has been used for centuries for its medicinal and therapeutic properties. Researchers in Spain have now developed a special aloe vera gel for use as an edible coating to prolong the quality and safety of fresh produce. With growing consumer concern over the use of chemicals as a means of food preservation, edible coatings such as this provide a safe, natural and environmentally-friendly alternative to conventional synthetic preservatives that are currently applied to produce after harvesting.

For this study, researchers chose table grapes, which like many fruits undergo changes during storage that induce and accelerate the ripening process, thus reducing their overall shelf life and making them susceptible to fungal decay and invasion by foodborne pathogens. A group of Crimson Seedless grapes was dipped in the aloe vera gel and stored for five weeks under low temperatures. A second untreated group was similarly stored, with changes in quality between the two groups determined over time. The untreated grapes showed signs of deterioration within about seven days, whereas the gel-coated grapes remained well-preserved for up to 35 days under the same experimental conditions. The gel-treated grapes maintained firmness, experienced less weight loss and less color change (factors associated with increased ripeness and spoilage) than the untreated grapes. Additionally, sensory comparison of both untreated and gel-treated grapes found that the gel-treated grapes were generally superior in taste.



High in antioxidants, the gel appears to act as a natural barrier to moisture and oxygen, aspects which often speed food deterioration. Additionally, the gel appears to contain various antibiotic and antifungal compounds that can potentially delay or inhibit microorganisms that can cause foodborne illness and food spoilage. The interest in beneficial properties of Aloe vera and other natural compounds by the food industry may soon lead to new functional food ingredients which improve food safety and quality in a variety of foods and beverages.

Source:
Serrano, M. Valverde, J.M. Guillen, F., Castillo, S., Martinez-Romero, D. Valero, D. (2006). Use of *Aloe vera* gel coating preserves the functional properties of table grapes. *J. Agric. Food Chem*, 54, 3882-3886.

ONLINE MASTERS (PROMS) DEGREE PROGRAM MICHIGAN STATE UNIVERSITY

A new distance learning opportunity is now available through Michigan State University's online Professional Master of Science (ProMS) in Food Safety degree. The program was created in response to a marketing research study that revealed an undeniable need on the part of the food industry, government and public health for their employees to be specifically educated in the many aspects of safeguarding our food supply. The program results in a 30-graduate credit master of science degree. The ProMS in Food Safety Program is offered through the College of Veterinary Medicine at MSU as a "Plan B" non-thesis program intended for mid-career/mid-management working professionals. For more information, go to: http://www.foodsafe.msu.edu/education.html.

RESOURCES

FDA-ALERT Materials

The FDA's Food Defense "ALERT" initiative is intended to raise the awareness of state and local government agency and industry representatives regarding food defense issues and preparedness. It is generic enough to apply to all aspects of the farm-to-table supply chain and is designed to spark thought and discussion with a variety of stakeholders.

ALERT identifies five key points that industry and businesses can use to decrease the risk of intentional food contamination at their facility. ALERT materials (wallet cards and brochures) are now available in Spanish, Chinese, Korean, and Vietnamese. Go to http://www.cfsan.fda.gov/~dms/alert.html.

be FoodSafe: The FSIS Magazine

USDA's Food Safety and Inspection Service launched a new quarterly publication, *be FoodSafe: The FSIS Magazine*, which focuses on food safety behavior trends, emerging science and research, inspection issues (domestic and international), and education programs for food workers, consumers and caregivers. The Fall 2006 inaugural issue showcased the work of FSIS, 100 years of meat inspection, and introduces FSIS to those who may not be familiar with its mission and objectives to protect public health through food safety. To receive printed copies for $29 per year, one must subscribe through the U.S. Government (GPO) Bookstore or online at http://bookstore.gpo.gov/collections/befoodsafe.jsp.

Safe Handling of Raw Produce and Fresh-Squeezed Fruit & Vegetable Juices

The Center for Safety and Applied Nutrition (CFSAN) has a colorful, consumer friendly website full of information on fresh produce for staying healthy and staying safe. Included are buying tips, storage and preparation of fresh produce and fresh-squeezed products, as well as a Q & A section. Go to http://www.cfsan.fda.gov/~dms/prodsafe.html.

USDA's Food Safety Research Information Office (FSRIO) Database

Anyone browsing the net for user-friendly food safety information will be delighted to find that the U.S. National Agricultural Library's ***Food Safety Research Information Office*** (FSRIO) is a fantastic resource to add to your "favorites" list. Launched in 2001 and updated in 2006, the FSRIO program is a collaborative project with the USDA's Agricultural Research Service. Its purpose is to collect, organize and disseminate food safety research information utilizing a searchable index, frequently asked questions, a news and events section, and research projects database, showcasing research activities funded by U.S. Federal agencies and other organizations. FSRIO also provides free reference services and assists its users with searching the NAL Catalog (AGRICOLA) to find food safety research information. Go to http://fsrio.nal.usda.gov/index.php and check it out!

Be Food Safe™ Partner's Toolkit

The USDA and Partnership for Food Safety Education have teamed up to promote a consumer ***Be Food Safe Campaign***. Research shows that Americans are aware of food safety, but they need more information to achieve and maintain safe food handling behaviors. The *Be Food Safe* campaign, which is grounded in social marketing, behavior change, and risk communications theories, is designed to provide educators with the tools to inform consumers about foodborne illness and raise the level of awareness of the dangers associated with improper handling and undercooking of food.

Based on the *FightBac* messages- Clean, Separate, Cook and Chill, the partner's toolkit contains a variety of tools for reaching consumers, including a Partner's Campaign Guide, DVD with downloadable files, print-ready color advertisements, a 24 x 36 inch color poster, radio scripts, letterhead for all campaign correspondence, a photo gallery of food safety images, and reproducible feature articles for media placement in local communities.

This is a wonderful resource for Extension agents and other professionals to help reduce risk of foodborne illness in our communities. Visit the FSIS website - http://www.fsis.usda.gov/Be_FoodSafe/About_BFS/index.asp.

COMING EVENTS

SAVE THE DATES!

FDA/NSTA Symposium: Food Safety and Nutrition for Science Teachers - March 31, 2007

The National Science Teachers Association (NSTA) is partnering with the Center for Food Safety and Applied Nutrition (CFSAN) of the U.S. Food and Drug Administration (FDA) to present an exciting Symposium for grade 5-8 educators on the topic of food safety and nutrition. The Symposium will be held at NSTA's National Conference on Science Education in St. Louis, MO. This event is part of a blended professional development opportunity that includes several online experiences - a discussion listserv and two NSTA Web Seminars-that extend the interactivity with FDA staff. You do not have to attend the Symposium in order to participate in the Web Seminars. For details, go to http://institute.nsta.org/stlouis/nutrition/symposium.asp.

Rocky Mountain Food Safety Conference

The 35th annual Rocky Mountain Food Safety Conference will be held **May 22 – 23, 2007**, at the Arvada Center for the Performing Arts. This year's topics will be announced in the Spring newsletter.

The annual scholarship fund-raising Golf Tournament is scheduled for May 21. For more information on the golf tournament, contact Devin Koontz at (303) 236-3020. To be added to the conference mailing list, contact Abby Bronken at Abby.Bronken@ci.denver.co.us.

LFS 2007 Annual Conference

The Lillian Fountain Smith Conference for Nutrition Educators, sponsored annually by Colorado State University's Department of Food Science & Human Nutrition, will be held **June 14 – 15, 2007,** at the Marriott Hotel in Fort Collins, CO. As the event draws closer, updated information will be made available at http://www.fshn.cahs.colostate.edu.

SERVSAFE® TRAININGS

Denver Metro Region

Manager level ServSafe® trainings are offered monthly in the Denver metro area through the Colorado Restaurant Association. Cost: members - $130; non-members - $170. Call 303-830-2972 for a complete schedule.

Western Region

Date	*Location*	*Intended Audience*	*Fee*
5/17/07 8 – 530p	Eagle County	Mgrs Certification Training	$115
	Contact: Glenda Wentworth (970) 328-8630		
2/26/07 730-5p	Mesa County-Delta/Montrose Vo-Tech College	Mgrs Certification Training	$120 *(after 2/12)* $140
	Contact: Norraine Harvey (970) 244-1834		

Northern Region

Date	*Location*	*Intended Audience*	*Fee*
3/8/07 8 – 530p	Sterling, CO	Mgrs Certification Training	$85 *(after 2/8)* $100
4/18/07 130 – 6p	Akron, CO	Food Handler Training	$25 *(<2 weeks prior)* $40
6/12/07 130 – 6p	Brush, CO	Food Handler Training	$25 *(<2 weeks prior)* $40
09/12/07 130 – 6p	Ft. Morgan, CO *Spanish Only*	Food Handler Training	$25 *(<2 weeks prior)* $40
	Contact: Joy Akey (970) 332-4151		

Southern Region

Date	*Location*	*Intended Audience*	*Fee*
4/12/07 8 – 5p	Pueblo	Mgrs Certification Training	$110 *(after 3/1)* $120
	Contact: Lois Illick (719) 583-6566		

ServSafe® Course Offering at CSU - Summer '07 - 1 cr. FN496-E will be offered on the CSU campus in Fort Collins, CO, May 14-18, 2007, from 8:40a - 11:25a. Go to http://www.colostate.edu/Depts/Registrar/.

ADDITIONAL FOOD HANDLER TRAININGS

Larimer County *Food SafetyWorks Program* – Food Handler Training **Fee: $25**

Contact Edie McSherry, (970) 498-6008, at the Larimer County Extension office for dates and locations of English and Spanish food handler trainings.

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