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Best Ways to Clean Kitchen Sponges

A recent USDA Agricultural Research Service news report discusses scientific tests of methods for cleaning kitchen sponges to reduce the risk from harmful microbes that may be present. Sponges were soaked at room temperature for 48 hours in a solution made from ground beef and lab growth medium to attain a high level of microbes (20 million per sponge or 7 logs*) to simulate a very dirty sponge. Each sponge was then treated in one of five ways commonly used in household kitchens (shown in the table).

Treatment	Effect on Bacteria	Effect on Yeast and Molds
Soaked in a 10 percent chlorine bleach solution for three minutes	37-87% killed	37 to 93% killed
Soaked in lemon juice for one minute		
Soaked in deionized water for one minute		
Heated in a microwave for one minute	7 log reduction* (99.99999% killed)	7 log reduction (99.99999% killed)
Placed in a dishwasher operating with a drying cycle	6 log reduction (99.9998% killed)	7 log reduction (99.99999% killed)

The scientists concluded that microwave heating and dishwashing with a drying cycle were the most effective methods for inactivating bacteria, yeasts and molds on sponges. They note that these simple and convenient treatments can help ensure that contaminated sponges do not spread foodborne pathogens around household kitchens.

*Using logarithms is a scientifically preferred method of expressing microbial numbers. One log equals a 90 percent reduction, which is not very significant in food safety. For example, USDA requires a 5 log reduction of *Salmonella* during the production of processed meat (a 99.999% reduction).

Source: Durham, S. "Best Ways to Clean Kitchen Sponges," USDA Agricultural Research Service News and Events, April 23, 2007, <http://www.ars.usda.gov/is/pr/2007/070423.htm>.

Key words: food safety, hygiene.



Food Safety



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Controversial Packaging System for Beef



A recent article in the *Washington Post* again raised the issue of whether beef packaged in a modified atmosphere that contains a small amount of carbon monoxide misleads consumers about the freshness of the meat (this issue was also in the news about a year ago).

At issue is whether a relatively new industry practice of using a small amount of carbon monoxide in packages of beef (particularly ground beef) to keep the meat red and fresh-looking for a longer time, is deceptive. To date, in spite of concerns from some consumer organizations, government regulators have not objected to the practice.

Meat spoilage is caused either by microbes, which turn it putrid, or by oxidation of the fat to rancid-smelling aldehydes. The best tool for detecting spoiled ground beef is by its odor, but most consumers judge by appearance.

Note: This is a spoilage issue, not a food safety issue. Contamination of beef with pathogenic bacteria, such as *E. coli*, can occur in both fresh-smelling and spoiled beef, if it has not been handled properly.

When there are different colors in packages of raw beef, it is due to different forms of the same pigment, myoglobin, a molecule that can be purple, red or

brown, depending on its environment. The myoglobin in freshly cut, raw "red meat" is in the form of deoxy-myoglobin, which is a dark, purplish-red color. On exposure to air, deoxy-myoglobin turns into bright red oxymyoglobin, the color regarded in meat as a so-called indication of freshness. But inside a package of meat, oxygen is unavailable, and after a few days, most of the myoglobin turns into its metmyoglobin form, which is a grayish brown color that many regard as spoiled. It may still be perfectly good meat.

Retailers control the oxygen exposure by covering the package with a plastic film that, while blocking out microbes, allows just enough oxygen penetration to keep the meat's surface an attractive, red oxymyoglobin color. Oxygen permeable plastic film is currently the most commonly used packaging method. However, myoglobin can also turn into brown metmyoglobin if exposed too long to air, giving it an undesirable appearance.

Another widely used packaging method is to seal the meat, while in its red oxymyoglobin form, in a gas-tight package containing a mixture of gases (usually nitrogen and carbon dioxide) that have no effect on myoglobin. This method is referred to as "modified atmosphere packaging" and has been in use for the past 50 years or so.

The new practice is a modified atmosphere of nitrogen and carbon dioxide containing a small amount of carbon monoxide (less than 0.4 percent). The carbon monoxide converts the myoglobin in meat into another form, the cherry-red carboxymyoglobin, which is slightly darker red than oxymyoglobin, but it still has a very "fresh" appearance to consumers. This color is more stable than oxymyoglobin and thus ground beef packaged in this manner has a considerably longer shelf life.

The controversy stems from the increased shelflife—is the carbon monoxide being used to cover up old, gray meat? Or does it prevent waste by allowing the sale of good ground beef that consumers would otherwise reject because of color? Carbon monoxide keeps the meat from turning brown, but it does not keep it from spoiling. To protect consumers, the government requires that carbon monoxide-treated meat be labeled with a "use or freeze by" date.

Source: Wolke, R. L. "Pretty in Pink," *Washington Post*, May 23, 2007; Page F04, <http://www.washingtonpost.com/wp-dyn/content/article/2007/05/22/AR2007052200380.html>.

Key words: meat and poultry, storage, spoilage, technology.

What Do Gardeners Know About Food Safety?

Researchers in Rhode Island and Connecticut surveyed New England home gardeners to assess their knowledge and attitudes about growing and handling produce. Reproduced below are the survey questions that were **missed or marked "Don't Know" by 50 percent** or more of the gardeners (12 of 56 questions). If we assume Idaho home gardeners have similar knowledge levels, these would be areas to emphasize in outreach programming and training.

General Fruit and Vegetable Safety

- Organically grown produce is less likely to cause foodborne illness than conventionally grown produce?
- Outbreaks of foodborne illnesses associated with eating raw fruits and vegetables have been increasing?

Prior to Planting/Soil Preparation

- The temperature of compost should be 100°F for at least 3 days?
- Produce grown in soil that has been treated with fresh manure in the spring should not be harvested for at least four (4) months?
- When manure is properly composted, harmful bacteria are destroyed?

During Planting/Growing

- Organic gardening practices make home-grown produce safer to eat?
- All outside faucets used to water the garden should have a back-flow protector?

Harvesting

- It is okay to harvest fruits or vegetables from the garden when you are feeling ill?

Post Harvesting Handling

- Home canned string beans are safe to eat if they were processed by the hot water bath (boiling water) method?
- It is safe to use diluted chlorine bleach solution, followed by a rinse, to clean produce?
- Very cold water should be used to wash warm, fresh picked produce to get it cold?
- Washing produce from the garden with soap and water will help keep it safe to eat?

Source: Pivarnik, L. F., et al., "New England Home Gardeners' Food Safety Knowledge of Fresh Fruits and Vegetables," *Food Protection Trends*, 26(5):298–309.

Key words: food production, fruit, vegetables, food safety.

Family Risk Factors and Child Outcomes

Over the past two decades research has consistently shown that risk factors early in the lives of children are associated with negative outcomes for those children in later childhood or young adulthood. However, research also shows that children are able to handle one or two risk factors in life with little increase in likelihood of later problems. But when risk factors accumulate, later outcomes are especially likely to be compromised.

A recent study by Kristen Moore at Child Trends identifies five potent family risk factors for children, including family poverty, coming from a single parent family, having parents with little education, coming from a large family, and having a family that is unable to own a home.

Data from the National Survey of America's Families shows that many children grow up in low risk families, with none of these risk factors (38% of children), or only one risk factor (26%). Prospects for these children are excellent, since their families have the resources they need to adequately support their children's developmental process.

However, children with more family risk factors are less likely to experience success later on. The Child Trends study shows that 18 percent of children experience two risk factors in their family lives and 11 percent have 3 risk factors. These children are deemed to be at moderate risk—many will grow up without adverse outcome, but others will not be so fortunate.

Of most concern are children in high risk families, that have four (5% of all children) or 5 risk factors (2% of children). That is, when the challenges of poverty, single parenthood, parental under-education, a large family and rental housing all combine, child outcomes are especially compromised.

Negative outcomes for children increase with the number of family risk factors. For example, only 5.5 percent of children low in family risk are suspended or expelled from school, but 11.8 percent of those



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from families with medium risk and 21.4 percent from high risk families get suspended or expelled at some point in their schooling. Patterns are similar for children's behavioral and emotional problems, with 9.4 percent from low risk, 22.2 percent from medium risk, and 30.3 percent from high risk families being so categorized.

The data also show that family risk factors are linked to the opportunities available for children. For example, only 58.7 percent of children from high risk families participate in any out of school activities, while 88.7 percent of children from low risk families take advantage of this opportunity. Youth development programs may want to keep these data in mind in developing outreach plans for their programming. That is, often those children who can most benefit from the program encounter barriers to participation.

Source: Written by Harriet Shaklee, based on Child Trends *Research-to-Results Brief*, Cumulative Risks among American Children by Kristin Anderson, October 2006.

Key words: children at risk, family.



32% of Latino Adults Who Speak Only Spanish Go Online

Latinos comprise 14 percent of the U.S. adult population and about half of this growing group (56%) goes online. By comparison, 71 percent of non-Hispanic whites and 60 percent of non-Hispanic blacks use the internet. Several socio-economic characteristics that are often intertwined, such as low levels of education and limited English ability, largely explain the gap in internet use between Hispanics and non-Hispanics.

These are some of the key findings in a new report issued by the Pew Hispanic Center and the Pew Internet Project titled "Latinos Online":

- 78% of Latinos who are English-dominant and 76 percent of bilingual Latinos use the internet, compared with 32 percent of Spanish-dominant Hispanic adults.
- 76% of U.S.-born Latinos go online, compared with 43 percent of those born outside the U.S. Some of this is related to language, but analysis shows that being born outside of the 50 states is an independent factor that is associated with a decreased likelihood of going online.
- 89% of Latinos who have a college degree, 70 percent of Latinos who completed high school, and 31 percent of Latinos who did not complete high school go online.
- Mexicans are the largest national origin group in the U.S. Latino population and are among the least likely groups to go online: 52 percent of Latinos of Mexican descent uses the internet.

Even when age, income, language, generation, or nativity is held constant, being Mexican is associated with a decreased likelihood of going online.

The report, written by Susannah Fox and Gretchen Livingston, is based on telephone surveys of 6,016 Latino adults, aged 18 and older, conducted in Spanish and English from June to October, 2006.

"For many people living in the U.S., the internet is the go-to source for information and for staying in touch with friends and family," said Fox, an associate director at the Pew Internet Project. "But we find that significant portions of the population are cut off from online resources. Only about one-third of Hispanics who have not completed high school and one-third of Latinos who do not speak and read English go online."

"The balance among Latinos could swing within a few generations," said Livingston, a research associate at the Pew Hispanic Center. "The sons and daughters of immigrants are flocking online—eight out of ten second-generation Latinos have access to the internet."

Some Latinos who do not use the internet are connecting to the communications revolution in a different way—via cell phone. Fully 59 percent of Latino adults have a cell phone and 49 percent of Latino cell phone users send and receive text messages on their phone. Looking at the numbers in a different way, 56 percent of Latino adults go online, 18 percent of Latino adults have a cell phone but do not go online, and 26 percent of Latino adults have neither a cell phone nor an internet connection.

The Pew Internet Project examines the social impact of the internet. Projects of the Pew Research Center (www.pewresearch.org) do not advocate for or take positions on policy issues. More information is available online at: www.pewhispanic.org and www.pewinternet.org.

Source: www.pewinternet.org.

Key words: internet, Hispanic.

2007 Food & Health Survey: Consumer Attitudes toward Food, Nutrition & Health

From February 19 to March 9, 2007, the International Food Information Council (IFIC) conducted a web-based survey consisting of 120 questions on food, nutrition and health. Some of the topics covered in the questions were overall health status, weight, diet and physical activity, dietary fats, and meals. Approximately 1,000 U.S. adults completed the survey.

Overall health status. Approximately 39 percent rated their health as "excellent" or "very good," and 58 percent indicated they were satisfied with their health status. A very high percentage indicated that physical activity (94%), weight (91%) and diet (90%) were factors that influenced a person's overall health.

Weight. A person's weight influenced their decision to make dietary changes. Seventy five percent were concerned about their weight and 70 percent were making dietary changes to "lose weight."

Diet and physical activity. Sixty-six percent reported making healthful changes to their diet. This included "changing meal and snack patterns" (59%), and "reducing portion sizes" (58%). Americans' inability to lose weight may be related to lack of knowledge of daily calorie needs and physical activity habits. Only 11 percent of respondents correctly estimated their daily calorie requirements, and just 44 percent tried to balance their calorie intake with their calorie expenditure (physical activity).

Dietary fats. The results indicate that Americans are aware of the health risks associated with saturated fats and trans fats but less aware of the health benefits of consuming mono- and polyunsaturated fats. Seventy five percent and 70 percent of respondents were limiting their trans fat and saturated fat consumption, respectively. And even though current guidelines recommend people consume more monounsaturated and polyunsaturated fats, 38 and 42 percent, were cutting back on monounsaturated fats and polyunsaturated fats, respectively.



*Nutrition
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Meals and snacks. Ninety percent of respondents selected breakfast as the most important meal of the day, but only 49 percent ate breakfast seven days per week. Almost all respondents (93%) consumed at least one snack per day.

This survey provides insights into the connections Americans make between the food they eat and their health. These results can be used to develop nutrition education materials that will help clear up misconceptions individuals may have on specific areas of nutrition (e.g. dietary fats) and promote changes in behaviors (increase level of physical activity, eating breakfast).

Source: <http://ific.org/research/foodandhealthsurvey.cfm>.

Key words: nutrition, physical activity.

Promoting Local Foods

Since 1994, the U.S Department of Agriculture (USDA) has published a National Directory of Farmers Markets, every two years, which lists all farmers markets operating in the U.S. In 1994, there were 1,755 farmers markets and in 2006 there were 4,385. There was an 18 percent increase in the number of farmers markets from 2004 (3,706) to 2006 (4,385).

This interest in eating locally grown foods has resulted in some food manufacturers developing ready-meals made with ingredients from the same region in which the product is sold. A Seattle based group called Eat Local has developed 40 prepared frozen meals, using seasonal produce and meats that are organic which come from within a several-hundred mile radius.

Some of the frozen meals include meatloaf, baby back ribs, apricot lentil soup, Chocolate Decadence (a flourless cake), quiche, chili, cheesecake and pre-rolled dough for cookies. The company is aiming for zero packaging waste and offers refunds when some of the packaging is returned to the store.

Source: <http://www.ams.usda.gov/farmersmarkets/FarmersMarketGrowth.htm>;
<http://eatlocalnow.sustainableballard.org/>.

Key word: organic.

Will C.L.A. Supplements Help You Lose Weight?

Conjugated Linoleic Acid (C.L.A.) is an unsaturated fatty acid that is naturally found in milk fat. As a supplement, it is popular among dieters and body builders since it reportedly reduces body fat and increases lean body mass. Studies have shown that it is effective in animals, but the results have been inconsistent with humans. A meta-analysis, published in the May 2007 issue of the *American Journal of Clinical Nutrition*, analyzed the results of more than a dozen randomized C.L.A. studies conducted in humans.

The dose that was effective was 3.2 grams of C.L.A. a day and individuals ingesting at least this amount decreased their fat mass by approximately 0.2 pounds a week or nearly one pound a month.

There are some negative side effects of taking C.L.A. which include an increase of three compounds (C-reactive protein, lipoprotein and leptin) in the bloodstream which can increase the risk of heart disease. In addition, taking C.L.A. daily can increase insulin resistance, which is related to development of type 2 diabetes. The researchers rec-

ommend further investigation into the safety of C.L.A.

Source: <http://www.ajcn.org/cgi/reprint/85/5/1203>.

Key words: supplements, weight loss.

Using the Internet to Stay Physically Active

Most of us consider surfing the internet a sedentary activity. But researchers at Brown University have found a way to have the internet boost people's physical activity levels. In their study, they had 249 healthy but sedentary adults receive either: (1) customized physical activity tips by regular mail; (2) customized physical activity tips by email, and (3) a list of Internet resources about exercise but no customized tips. Physical activity levels were monitored in the three groups for one year.

The good news is that all groups improved their physical activity levels. At six months, the two groups who received the customized physical activity tips by email and regular mail did the best. Those who received the tips by email averaged 120 minutes of physical activity per week while those who received the tips by regular mail averaged 112 minutes of physical activity per week. Those who received a list of Internet resources but no customized tips averaged 90 minutes of physical activity per week.

After one year, all subjects decreased their level of physical activity. However, those that received the customized tips by either e-mail or regular mail accumulated 90 minutes of physical activity per week, while the non-customized tips group accumulated 80 minutes of physical activity.

The researchers suggest that customized tips can increase physical activity levels and delivering them by email may be an effective tool to get inactive people moving. Since physical activity levels were the same whether the information was received via email or from printed material from regular mail, it may be possible to reach more sedentary adults in a cost-effective way by providing them via email.

Source: *Archives of Internal Medicine*, May 14, 2007; <http://archinte.ama-assn.org/cgi/content/abstract/167/9/944>.

Key words: internet, physical activity.

Could Your Living Will Be Found if Needed in a Crisis?

Idahoans have a new opportunity to communicate their wishes about medical care when they place their living will and durable power of attorney for health care—advance directives—in the *Idaho Health Care Directive Registry*. Located in the office of the Idaho Secretary of State, the *Registry* offers peace of mind and easy access to your wishes for care at the end of life. When your documents are available in the *Idaho Health Care Directive Registry* there will be no need for your family members to frantically search through file cabinets or safe deposit boxes during a medical emergency. For more information and an application form, go to <http://www.idsos.state.id.us> or call 208-332-2814 and request a packet of material. After completing your advance directives and filing them in the *Idaho Health Care Directive Registry*, be sure to inform your loved ones of the filing. Living will and durable power of attorney (advance directives) documents are available in English and Spanish at no cost from www.abetterwaycoalition.org or from your local hospital. To learn more about Advance Directives, visit the University of Idaho website, *Isn't it Time to Take the Time? Talking with your family about end-of-life decisions*, <http://www.ag.uidaho.edu/lsyff/communicate>.

Source: Adapted from Whitaker, C., April 2, 2007, Idaho Health Care Registry email.

Key words: health care, wills.

Summer Insurance Checkup

Summer is here. While many people are thinking about barbecues, water sports, and outdoor activities, financial experts suggest thinking about your insurance coverage to make sure you're protected in case something goes wrong.

Just as in driving, when planning your finances you have to learn to be defensive. Sound investments and adequate savings won't protect you if you get sued. And while the mere word "insurance" makes some people cringe, it might not seem so bad if you can find ways to protect your family and residence and save money at the same time. Take some time



Family Economics

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this summer to evaluate if your homeowners or renters insurance meets your needs. Homeowners and renter's insurance covers both damage to your property and your liability or legal responsibility for any injuries and property damage you or members of your family cause to other people. This includes damage caused by household pets.

Guess what claim caused insurance companies to pay out more than \$300 million in 2005 alone? Dog bites. In 2005, 15 percent of all liability claims on homeowners policies were for dog-bite injuries, 4.7 million of them, and half the victims were kids. Shocking, isn't it? Even if there's no Fido in your life, think about the folks who've lost property in fires, floods, tornados, you name it. None of us is immune. Homeowners insurance protects your biggest investment (your house) and all the contents in it. It also provides some liability coverage in case you are sued. Because disasters happen when we least expect them, you need to do something today to prepare.

Where to start? Take an inventory the contents of your home, preferably on videotape. Then put that tape in your safe deposit box or a flame-resistant home safe. Contact me if you'd like more information about household inventories. Next, take a closer look at your policy. Does it provide for 100% guaranteed replacement value for your house and possessions? Is there an inflation clause? Be careful not to over-insure by including the cost of the land. Is there "loss of use" coverage that pays for expenses while you can't live in your house? What

are the limits on items such as computers, cameras, jewelry, or guns? If you've accumulated more "stuff" over the past few years, have you included it in your inventory of assets? Most people should update that at least every two years.

How much are you paying for that coverage? Using the Internet, do some comparison shopping. Try a site like www.netquote.com. You'll find lots of good information including free insurance quotes. If you have special items like the new Apple iPhone (just kidding), musical instruments, art, antiques, expensive jewelry, etc., you may need an additional rider on your policy or you may need a separate personal articles policy. By carefully reading your homeowners policy, you can see what's covered. And keep in mind, if you are at risk for either flood or earthquake, you'll need additional coverage beyond the standard homeowners policy.

Other tips:

- Ask about discounts for smoke detectors, fire extinguishers, deadbolts, and alarm systems.
- Consider reducing your premiums by raising your deductible to \$1,000 and self-insuring for the first \$1,000. (You're supposed to have that emergency fund in place anyway, right?)
- Check out the ratings of your insurance company at [A.M. Best](http://www.A.M.Best.com). Preferably your company should rate an A or A plus. A financially strong company is much more likely to be able to pay your claims if the need arises.
- Make sure you update your policy if you remodel your home.
- Don't leave your home office uninsured (you may need additional coverage).

Need more help? Call the National Insurance Consumer Helpline at 800-942-4242.

If you rent your home, you should be covered by renters insurance. The building owner's property coverage will not pay to replace your apartment's contents. You never can tell when an upstairs neighbor may leave the water running or trip over one of your kids' roller skates.

Source: Stevens, S., 6/7/07, Dog Bites, Swimming Pools, and Car Crashes, Morningstar.com; Insurance Information Institute, Homeowners Insurance Information, retrieved 6/29/07 from <http://www.iii.org/individuals/homei>.

Key word: insurance.

The High School Financial Planning Program: A Curriculum Resource for High Schools

Idaho is one of only nine states that requires personal finance education be included as a high school graduation requirement, according to a new study released by The National Council on Economic Education. The study reports state-by-state efforts to improve economic and financial literacy through education. Issued biennially, the study provides a national set of data that tracks the progress of economic and personal finance education via detailed state-by-state "snapshots." In Idaho personal finance topics are taught during three weeks of a one-semester Economics course required for high school graduation. Additionally, personal finance is a separate class taught by some Family and Consumer Sciences and Business teachers.

Many high school teachers seek curriculum materials for the course. University of Idaho Extension and the Idaho Credit Union League (ICUL) partner with the National Endowment for Financial Education to provide the High School Financial Planning Program (HSFPP) to public, private, and home-school teachers. This year the HSFPP was completely revised. Several Extension educators and ICUL managers will offer free teacher trainings in July and August to introduce the newly updated HSFPP Teacher and Student Guides, website and interactive teaching strategies. Join us for trainings being offered from 8:30am to 3pm on:

- Wednesday, July 25, Twin Falls County Extension;
- Thursday, July 26, Bannock County Extension, Pocatello;
- Tuesday, August 7, Brammer Building, Lewiston;
- Thursday, August 9, Capital Educators Credit Union, Meridian.

Trainings are free, but pre-registration is required a week before each class. One University of Idaho In-service credit is available for \$82. For more information contact Lyle Hansen, lhansen@uidaho.edu, or call the Jerome County Extension office, 208-324-7578.

Source: National Council on Economic Education, June 13, 2007, [Report Card - Survey of the States: Economic, Personal Finance, and Entrepreneurship Education in Our Nation's Schools in 2007](#); Hansen, L., May 2007, The New NEFE High School Financial Planning Program Teacher Training flyer.

Key words: financial education, financial literacy.