



Food Safety

Food Safety CURRENT NEWS

Standards Set for Organic Farming

Dan Glickman, former secretary of agriculture, recently announced final standards for production, handling, and processing of organically grown agricultural products. The National Organic Program Final Rule was announced December 21, 2000. These regulations will go into effect 60 days after the announcement, with full implementation in 18 months.

Organic farming was one of the fastest growing segments of American agriculture during the 1990s. USDA estimates that the value of retail sales of organic foods in 1999 was approximately \$6 billion. The number of organic farmers is increasing by 12 percent per year, and now stands at almost 12,200 nationwide, composed mostly of small-scale producers. According to a recent USDA study, certified organic cropland more than doubled from 1992 to 1997. Two organic livestock sectors, eggs and dairy, showed the most growth.

These standards will give consumers more confidence in buying organic foods. Organic farmers will also have clearer guidelines in producing organic foods. These rules and guidelines are to be used as a marketing tool. It is important to know that labeling a food "organic" does not mean it is safer or of better quality than other food products.

Some highlights of the

Final Rule include the following:

- Vaccines are allowed as part of preventive management. Animals must receive medical treatment as needed. Such treatment may result



in the loss of "organic" designation.

- Animals must have access to the outdoors.
- To be called "organic," the product's ingredients must be 95 percent organic, and the remaining ingredients must be as organic as possible.
- To bear the label "Made With Organic Ingredients," a product must be 70 percent organic.
- The pesticide residue threshold is set at 5 percent of the United States Environmental Protection Agency's pesticide residue tolerance.
- Wine that contains sulfites can be labeled "Made with Organic Grapes."

Essentially, the new organic standard offers a national definition for the term "organic." It details the methods, practices and substances that can be used in producing and handling

organic crops and livestock, as well as processed products. It establishes clear organic labeling criteria, and specifically prohibits the use of genetic engineering methods, ionizing radiation, and sewage sludge for fertilization.

Glickman said, "These new standards are a win for both farmers and consumers. For farmers, the standards create clear guidelines for how to take advantage of the exploding demand for organic products. For consumers, the organic standards offer another choice in the marketplace. Those who want to buy organic can do so with the confidence of knowing exactly what it is that they're buying."

Rhonda R. Janke, associate professor and extension specialist in sustainable cropping systems at Kansas State University, also adds that Kansas does not have a state certification program, and is not likely to have one in the near future. In Kansas, the options include only private certification agencies. However, Jamie Clover Adams and her assistant, Carole Jordan at the Kansas Department of Agriculture, will be discussing options with K-State faculty, staff, and Kansas organic growers within the next couple of months. If you have comments or questions, please contact Rhonda Janke at: rjanke@oznet.ksu.edu or 785-532-0409.

Source: www.ams.usda.gov/nop/

See Farming Page 2

On the Web Organic Information

www.oznet.ksu.edu/library/cps12/mf2344.pdf
www.oznet.ksu.edu/library/age2/MF2432.pdf
www.oznet.ksu.edu/library/solv2/ep6.pdf
www.cofrr.org/
www.ifoam.org
www.ota.com
www.ocioa.org
www.caff.org
www.organicconsumers.org/

Egg Safety

www.oznet.ksu.edu/library/fmt2/mf2139.pdf
www.fs.is.usda.gov/OA/pubs/eggs.pdf
www.fs.is.usda.gov/OA/pubs/eggprod.htm
www.aab.org/
www.fs.is.usda.gov/80/OA/pubs/shelleggs.htm

Pesticides

ifinfo.health.org/review/irpest.htm
www.dce.cornell.edu/bceet/FactSheet/Pesticide/FS26_foodSafety.cfm
www.epa.gov/pesticides/food/acc.orst.edu/info/optn/
ifinfo.health.org/brochure/cgfsdp.htm
www.cdc.gov/niosh/nasd/docs4/pdfs/ca98007.pdf

Food Allergy

www.foodallergy.org/
ifinfo.health.org/brochure/cgfsdp.htm
www.nal.usda.gov/80/fnic/etext/000004.html

KSU Food Safety

www.oznet.ksu.edu/foodsafety/welcome.htm
rjanke@oznet.ksu.edu (extra response)
foodsafety.htm

New on the Web...

At Home Safe Flood Handling: It's in Your Hands.
KSU Consumer Food Safety Publication.
MF 2465
www.oznet.ksu.edu/library/fmt2/mf2465.pdf
This will be available in K-State Research and Extension Offices soon!

Upcoming Events

February 28 & March Oskaloosa

Serving Safe Food
Jefferson County Health Department
Contact: Cindy Williams
785-863-2212

March 6-7 Rapid City, SD

HACCP Workshop-Meat/Food Processors
Contact: Liz Boyle
785-532-1247

March 13 & 14 Topeka

Serving Safe Food
Shawnee County Extension Office
Contact: Cindy Evans
785-232-0062

March 13 & 14 Lawrence

Serving Safe Food
Douglas County Extension Office
Contact: Susan Krumm
785-843-7058

March 27 & 28 Pratt

Serving Safe Food
Pratt Community College
Contact: Jean Clarkson-Frisbie
316-672-6121

April 10 & 11 Wichita

Serving Safe Food
Sedgwick County Extension
Education Center
Contact: Teresa Lang
316-722-7721

April 16 & 23 Girard

Serving Safe Food
Crawford County Extension Office
Contact: Martha Murphy
316-232-1930

May 8-10 Lincoln, NE

HAACP Workshop-Meat/Food Processors
Contact: Liz Boyle
785-532-1247

June 7-9 Manhattan, KS

HACCP Workshop-Meat/Food Processors
Contact: Liz Boyle
785-532-1247

July 7-9 St. Louis, MO

HACCP Workshop-Meat/Food Processors
Contact: Liz Boyle
785-532-1247

July 6-13 Manhattan, KS

KSU Rapid Methods & Automation in Microbiology
21st Annual Workshop
Call Hall
Kansas State University
Contact: Dr. Daniel Y.C. Fung
785-532-5654 or
KSU Division of Continuing Education
785-532-5566 or 1-800-432-8222



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When the Home Freezer Stops

Have you checked your home freezer lately? When many home freezers are located in low-traffic areas, it is important to check it frequently to make sure it is running. This reduces the chances of discarding thawed and spoiled food. Here are some tips to care for frozen food when the freezer stops functioning.

If you suspect the power will be off, set the freezer temperature control to 10° to 20° F immediately. The colder the freezer, the longer the food will stay frozen.

When a power outage occurs, keep the freezer closed as much as possible. A full freezer will stay cold about two to four days. A half-full freezer will stay cold about 24 hours. Cover the freezer with heavy blankets for added insulation.

If you know the power will be off for a long period of time, use dry ice to help keep food frozen. For a full 20 cubic foot freezer, 50 pounds of dry ice will keep food frozen three to four days. For a half full 10 cubic foot freezer, 25 pounds of dry ice will keep food frozen two or three days. Be careful when handling dry ice. Use heavy gloves and place the dry ice on cardboard on top of the food in the freezer. If dry ice is not available, try to move the food to a locker plant.

What if the food thaws? Here are some tips to check the food for safety and if it can be refrozen:

Meat and poultry: If the food is 40°F or below and if color and odor are good, it can be refrozen. Discard if off-odor or off-color are present. If the meat is thawed but still cold, cook it and consume or freeze.

Vegetables: If ice crystals are present, or if the food temperature is 40°F or below, refreeze.

Fruits: If there are no signs of spoilage, refreeze. Thawed fruits, previously frozen with sugar, survive with minimal damage to quality. They can be used in cooking and in making jams and jellies.

Fish and Shellfish: If ice crystals are present, or if the food temperature is 40°F or below, refreeze. If the fish or shellfish is completely thawed or questionable, discard.

See Freezer, Page 3

Food Safety CURRENT NEWS

FDA Pesticide Residue Monitoring Update

Pesticides in food are regulated by three government agencies. The Environmental Protection Agency approves pesticide use and sets tolerance levels. The USDA Food Safety Inspection Service monitors meat, poultry, and certain egg products. The Food and Drug Administration monitors imported foods and domestic foods shipped in interstate commerce. The FDA also tests for residues in its market basket survey, the Total Diet Study. The USDA Agricultural Marketing Service (AMS) tests raw agricultural products and various processed foods.

Domestic samples are taken as close to the point of production as possible. Import samples are taken at the point of entry into the United States. Emphasis is on the raw product that is unwashed, whole, and unpeeled. If residues are found in domestic samples, the FDA will invoke sanctions such as seizure or injunction. For import samples, shipments may be stopped at the port of entry.

Testing methods include multi-residue methods (MRMs) and single residue methods (SRMs). The MRMs can detect pesticide levels in

about half of the 400 pesticides with EPA tolerances and many others with no tolerance. The SRM detects a single pesticide. The lower limits used by the FDA to determine pesticide levels are usually well below tolerance levels set by the EPA.

Besides testing human food, animal food is also tested for pesticide residues. This is done in cooperation with the FDA Center for Veterinary Medicine. Their focus is on feeds used for livestock and poultry intended for human consumption.

The FDA conducts a Total Diet Study four times a year. FDA purchases food from grocery stores in each of the four geographic regions. There are four market baskets with 261 foods, representing more than 3,500 foods reported in USDA food consumption surveys. Each market basket contains foods purchased in three cities within each region. Each food is prepared for consumption then tested for pesticide residues. Results will estimate the dietary intakes of the pesticide residues. The most common pesticides detected in the Total Diet Study include DDT,

chlorpyrifos-methyl, malathion, endosulfan, and dieldrin. Results in 1999 are well below tolerance levels.

Results from Fiscal Year 1999 show 9,438 samples were analyzed. Of these, 3,426 were domestic and 6,012 were imports. Results are given as a percentage of no residues found, or violative residues found. Violative residues are those that exceed tolerance levels or have regulatory significance, but do not have tolerance levels. Fruits and vegetables make up 72.3 percent of the total domestic samples. In 1999, no violative residues were found in 99.2 percent of all domestic samples. Fruits and vegetables make up 84.1 percent of import samples. In 1999, no violative residues were found in 96.9 percent of all import samples.

For 1999, results are generally well below EPA tolerances. FDA conducts ongoing research to expand the list of pesticides in its monitoring program and add new testing methods.

Source: vm.cfsan.fda.gov/~acrobot/pe99rep.pdf

Farming

continued from Page 1

For more information on Organic Farming in Kansas, contact:

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Kansas Dept of Agriculture
2524 SW 6th St.
Topeka, KS 66606
P: 785-296-3558
F: 785-296-8389
cjordan@kda.state.ks.us
www.ink.org/public/kda/

For other state organic farming information, see the list of contacts at:

www.ams.usda.gov/nop/nop2000/nop/LMcKState%20Contacts.html

For information on private organic certifiers, see the list of contacts at:

www.ams.usda.gov/nop/nop2000/nop/privatecertifiers.htm



FDA Finalizes Requirements for Marketing Shell Eggs

The United States Food and Drug Administration announced last year a final regulation to improve the safety of eggs. The rule is intended to reduce the occurrence of *Salmonella Enteritidis* (SE), which can cause foodborne illness. It is estimated that one out of every 20,000 eggs is contaminated with SE. Outbreaks associated with eggs have been traced back to undercooked eggs and foods containing undercooked eggs served in homes, private gatherings and commercial establishments.

The regulation includes two areas of emphasis. The first is a refrigeration requirement to be effective in six months. The regulation states that eggs must be promptly refrigerated at 45 degrees Fahrenheit or lower upon delivery at retail establishments (supermarkets, restaurants, delis, caterers, vending operations, hospitals, nursing homes and schools). Refrigeration at this temperature slows growth and development of SE.

The second area of emphasis is a safe handling requirement, which will be

effective in nine months. This rule will require shell egg cartons to bear safe handling instructions. The statement will read as follows:

SAFE HANDLING INSTRUCTIONS:

"To prevent illness from bacteria: Keep eggs refrigerated, cook eggs until yolks are firm, and cook foods containing eggs thoroughly."

This rule is part of the Egg Safety Action Plan. The goal is to reduce SE illnesses from contaminated eggs 50 percent by 2005 and eliminate SE illnesses by 2010.

Source: www.fda.gov/bbs/topics/NEWS/NEW00744.html

FAQ's – Starlink™ Corn

• What is Cry9C, the controversial protein in Starlink™ corn?

Cry9C is an insecticidal protein added to certain corn hybrids through genetic modification to control European and Southwestern corn borers and the Black cutworm. It kills these insects by destroying their stomach cells. It can also manage insect resistance in Bt-based insecticidal products.

• Is Cry9C an allergen?

This is still under investigation. With the limited evidence available, the EPA gives Cry9C a "medium" risk that the protein is an allergen. The amino acid sequence of this protein does not follow known allergens, which gives it a low probability of being an allergen. There are some risk factors for allergenicity that this protein has met to some degree. The EPA is asking for more data to better assess this protein for its allergenicity.

• Is it safe to eat food containing Starlink™ corn?

Typically, a person becomes allergic to a protein when they are exposed to it many times over an extended period of time. The allergenic protein found in foods must be at a high percentage level of the total protein content of the food. Analysis of Cry9C levels in Starlink™ corn show it is a small fraction of the total corn protein and sensitivity to this protein may be low.

• Why are products being recalled if it is safe?

The FDA does not approve the Cry9C protein for human consumption. Foods containing Starlink™ corn went through a Class II recall. This type of recall removes products that may cause temporary or mentally reversible health problems with the risk of serious health problems being remote.

• Has anyone become ill from consuming Starlink™ corn?

FDA reports approximately 34 adverse reactions. Twenty of these reports have been classified as unlikely to cause an allergic reaction. The United States Centers for Disease Control and Prevention (CDC) is studying seven people who had symptoms of an allergic reaction after eating a meal containing corn. However, it is not known if the Cry9C protein was present in the consumed food. They also note that other allergens may have been present. Another seven individuals had reactions with a minimal chance of being an allergic reaction. All of these cases are still being investigated.

Source: ITT Resources for Food Science Communicators: Questions and Answers about Starlink™ Corn

Freezer, continued from Page 2

Cooked foods (i.e. casseroles): If ice crystals are present, or if the food temperature is 40° F or below, refreeze. If still cold, these foods can be cooked and used immediately.

Ice Cream: If partially thawed, discard. The texture becomes unacceptable.

Breads and baked goods, nuts, flour, cereal: These are safe to refreeze. Be sure to inspect for contamination from meat drippings. If present, discard.

Always re-label and date refrozen food. Clean the freezer before refilling. Refreeze food as quickly as possible. Set the temperature control to the coldest setting. Place the warmer packages against the freezer walls. Add aluminum foil spacers between packages to increase cold temperature transfer. If necessary, call a local locker plant to help in refreezing food. Use refrozen food as soon as possible.

Source: *So Easy To Preserve, 4th Edition, When the Home Freezer Stops*