

# FoodBytes



Indiana State  
Department of Health

Fall, 2002 Volume 3, Issue 3

## Inside this issue: **A simple approach to date marking**

**“Standards”  
set goals for  
locals**  
2

**Some hand  
sanitizers  
gain ap-  
proval**  
3

**Illness out-  
break shows  
need for co-  
operation**  
4

**Behold, the  
power of ...  
prunes?**  
5

**Can you  
recognize a  
ready-to-eat  
food?**  
5

**“Ask Scott”**  
6

The Food Rule, Title 410 IAC 7-20, Section 174, requires that potentially hazardous food be "date marked" under certain conditions. Simply put, foods that meet all the following criteria should be marked: potentially hazardous, prepared or opened on site, held under refrigeration, more than 24 hours. Ready-to-eat (RTE) means the food is edible and has nothing to do with whether the food is aesthetically pleasing. RTE means it is safe to eat and is reasonably expected to be consumed in that form.

Some potentially hazardous foods (PHF) that may qualify are meats, dairy products, raw eggs, seafood, cooked vegetables, rice, or pasta.

Ready-to-eat foods could be safely consumed in that form. Fried chicken could be eaten hot or cold, however it is not expected that cold gravy would be eaten without reheating. If the food will not be reheated to 165° F. (140° F. for commercially prepared foods) for hot holding, then

the date marking provision would apply.

Date marking can use any system that is convenient, including labels, pro-



**Date Marking is simple if you remember the four criteria.**

duction logs and markers, *Daydots*®, or any in-place method that can be explained to and understood by employees and health department inspection staff.

Examples of food that may need date marking are:

- ◆ **deli meats, soft cheeses, pre-made sandwiches**
- ◆ **potato or macaroni salad, tuna or chicken salad that is pre-made, or made on site**
- ◆ **open containers of milk, whipping cream**
- ◆ **cottage cheese, sour cream, cream cheese**

- ◆ **cut melons**
- ◆ **gravy, stew, or soup**
- ◆ **cooked meat loaf, chicken**
- ◆ **leftovers from hot or cold holding buffets or salad bars**

*(Continued on page 3)*

### **Date marking requires a system**

There is no special requirement as to how to mark food containers that qualify. The date of preparation can be used, or the date of consumption.

Color codes or color dots are also acceptable. The system needs to be clearly understood by food employees, used correctly, and be obvious to the inspector.

Remember the four criteria when a mark is required: prepared or opened RTE food, potentially hazardous, held refrigerated, more than 24 hours.

## “Standards” sets goals for locals

How well does a local health department food protection program perform when it comes to protecting public health? The answer may lie with the new “Program Standards” draft written several years ago by FDA.

The new program is in its pilot testing phase nationwide and is an

The program is intended to set nine goals, or “standards”, for local health departments to attempt to achieve and will be a tool for self-evaluation.

outgrowth of the old “survey” program conducted by the ISDH years ago. It is intended to set nine goals, or “standards”, for local health departments to attempt to achieve, largely measured through self-assessment.

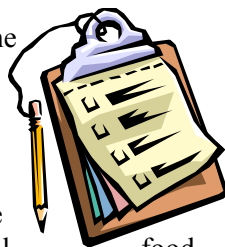
Two Indiana local health departments are participating in the current testing phase and two more may be added later. Health departments in Howard and Dearborn counties have agreed to join other health departments nationwide in testing the application of the nine standards. Cass and LaPorte coun-

ties may join in the future.

FDA says the purposes of these standards include serving as a guide to regulatory retail food program managers in the design and management of a retail food program, and providing a means of recognition for those programs that meet these standards.

The intent in the development of this program is to establish a basic foundation in design and management of a retail food program. Local health departments may add additional requirements to meet individual program needs.

At this point, FDA is asking the volunteer local health departments to perform a “self-assessment” by evaluating their current food safety programs against the nine standards. This will set the base by which these programs can be statistically evaluated in their success in reducing foodborne illness risks and achieving improvements in inspection scores.



(Continued on page 3)

*FoodBytes* is published quarterly by the Food Protection program, Indiana State Department of Health. Comments may be directed to:

**FoodBytes**  
Indiana State Department of Health  
Consumer Protection - 5C  
2 N. Meridian St.  
Indianapolis, IN 46204

Telephone  
317-233-7360

e-mail  
food@isdh.state.in.us

  
Gregory Wilson, MD  
State Health Commissioner

Michael A. Hurst, JD  
Deputy State Health Commissioner

### Editorial Staff

Ed Norris, MS, CFSP  
FoodBytes Editor

Scott Gilliam, MBA, CFSP  
Food Program Manager



### Mark your calendar

Better Processing School in  
Hendricks Co.,  
November 19 & 20.

Orientation for new  
local health department  
employees at ISDH,  
December 3 & 4.

More information will be  
mailed later.

## Etiquette in the office kitchen

A refrigerator in the work place can enable employees to eat healthfully and save the money otherwise spent eating out. But rules need to be established so you won't have to deal with issues about missing food, or leftovers so old they've planted roots.

**Post rules.** Co-workers can decide what rules they want to live by. Include clean-up duties and deadlines for food disposal.

**Assemble a clean up squad.** Volunteers can rotate the duty of

regular cleaning (avoiding cross-contamination!) and making sure there is storage space for meals.

**Take out the trash.** Each user should participate in keeping the fridge clean even though there is an assigned group. If food smells, or is growing mold, it should be thrown out!

**Label it.** Put your name on containers and date mark it. This can reduce theft or confusion.

*Construction Break*

## Standards

(Continued from page 2)

The nine program Standards are: regulatory foundation, trained regulatory staff, inspection program based on HACCP principles, uniform inspection program, foodborne illness investigation and response, compliance / enforcement, industry / community relations, program support and resources, and program assessment.

Final completion is several years away, but once ready for full implementation, the program will become the “measuring stick” for local health department performance. Meeting the standards will remain voluntary, but are closely tied to the standardization program under way for food inspectors.

## Some hand sanitizers gain needed approval

Hand sanitizers have created a lot of confusion since they appeared on the market several years ago. One problem for food establishment operators is that no hand sanitizer companies have been able to prove their efficacy as it relates to protozoan oocysts and viral pathogens.

In most of these products, the active ingredient is alcohol-based, like ethanol or isopropyl, and these products have been shown to be effective on bacteria-based pathogens like *Salmonella* and *E. coli*.

When companies advertise that they are effective on microbes, they are partially right. Until it is shown that they are completely effective against organisms such as Hepatitis A, ISDH cannot allow such products to be used as a substitute for hand washing.

The FDA currently

states that three barriers must be in place to reduce foodborne illnesses: exclusion / restriction of ill food employees, proper hand washing as stated in food law, and no bare hand contact of ready-to-eat food. All three conditions must be met, not just one or two.

With this having been said, the following hand sanitizers are recognized by the ISDH as currently meeting the requirements under federal law to be Generally Recognized As Safe (GRAS). They are made by Kay Chemical Company (ECOLAB), and GOJO:



ACTIGEL™, Puritan®, McD®, Digisan™, EcoCare 550S™, ALPHASAN™, Sanigizer®, Purell® (GOJO).

This means that these products may be applied to the skin without having to wash it off or don gloves, (Section 109). These hand sanitizers may be used as an additional barrier to bacterial pathogens, only after proper hand washing has taken place. Hands must still be kept out of any ready-to-eat foods as an additional barrier for protection.

Hand sanitizers encountered in the field that are not on the list provided should be investigated, and distributor information provided to the Food Protection Division. There may be other companies producing a GRAS product, but the ISDH may not be aware of them. This topic is emerging and the accepted list will likely grow. Your area field representative and ISDH will provide guidance.

Scott Gilliam

## A simple approach to date marking (continued)

(Continued from page 1)

The date mark should reflect a date of consumption of no more than seven days for PHFs under refrigeration at 41° F or lower. The shelf life clock starts ticking when a PHF is prepared and the product stored in refrigeration, or a packaged PHF that has been sealed in a food processing plant is first opened.

The clock stops ticking if you freeze the food. The clock does not reset when food is brought to refrigeration temperatures. It resumes at the point when the food is no longer frozen.

The date mark must follow the food throughout its life, from beginning to end. An example would be leftover whole cooked chicken that is held two days in re-

frigeration and then made into chicken salad. It only has five days left, if held at 41° F. The date must follow the product until it is sold, consumed, or discarded.

This is a critical violation and inspectors should check for compliance during each retail food establishment inspection. ISDH field staff can assist in correctly documenting this violation.



## Illness outbreak shows need for cooperation

**W**hat is one of the worst foodborne illness outbreak scenarios you could imagine? How about having 300 people attend a wedding reception, and now many guests are out of state or overseas. You are the only food specialist on staff, and your public health nurse is on vacation! Add that the caterer is in another county and is uncooperative in the initial stages of investigation. There are no food samples left, and almost all ill people have recovered, making stool sample collection difficult.

This exact outbreak occurred in July this year, making it one of the biggest recorded in Indiana in several years. It is worth noting because of the effort put forth by the health departments involved.

Newton County Health Department received a call on a Monday morning from a frantic mother of the bride, stating that several attendees at her daughter's wedding had become ill.

Upon investigating, the food specialist discovered that many people were ill, but most lived in other counties, other states, and at least one person was now in France. She immediately contacted the facility where the event took place, only to learn that the caterer operated from White County. She then notified White County Health Department,

whose inspector took over questioning of the caterer.

In the meantime, the Newton County Health Dept. also called the ISDH, and the Food Protection and Epidemiological programs began to assist. The Newton County inspector collected names and phone numbers of the wedding participants, then began interviews. The onset times and symptoms were indicative of a fast-acting organism. By putting the information together, *Staphylococcus aureus* or *Bacillus cereus* was suspected as the bacterial agent.

Other counties made efforts to round up enteric (stool) cultures from ill persons who had attended the reception. Staff members from Fountain-Warren, Lake, LaPorte, Howard and Marion counties all delivered 7A containers to people and returned them to the ISDH lab for testing.

Although no samples tested positive, most likely due to the time delay, *Staphylococcus aureus* was implicated. Assessing the food items consumed and handling procedures pinpointed prime rib as the likely culprit.

After numerous interviews, phone calls to coordinate efforts, visits to the estab-

lishment, and faxing of information, the week finally wound down with some exhausted but satisfied food inspectors.

Ed Norris, Food Specialist for the ISDH, concluded the investigation the following week with a *hazard analysis critical control point* (HACCP) inspection at the facility. It was statistically determined that *Staphylococcus aureus* was the pathogen, prime rib the vehicle, and the chef (who was using bare hands to prepare the product) was the source.

Even though the meat was a pre-cooked product, initial preparation of the meat occurred the previous day. This allowed the possibility of time and temperature abuse that may have allowed toxins to form. Toxins would not be killed in the heating process.

Mostly, the outbreak investigation went well. It deserves attention because it highlights the cooperation of many agencies and the teamwork that was demonstrated. Often it becomes necessary to coordinate efforts and to ask for assistance from other individuals and/or agencies.

*The success or failure of an investigation may be determined by quick action and willingness of health departments to ask for, and accept help from others.*

(Continued on page 5)



## Standardization roll-out complete

After seven sessions in seven cities, the new "standardization" program has been introduced around the state. The classes also served as a guide to the latest inspection techniques.

Standardization encourages consistency among federal, state, and local inspectors and recognizes a high level of achievement in understanding and implementing the concepts of each section of the food code.

Applicants are encouraged to submit Annex 1 provided at the sessions.

## Illness Outbreak

(Continued from  
page 4)

Time is critical in any illness outbreak. Quick action is needed to find and secure any food samples remaining, log temperatures, and question those involved.

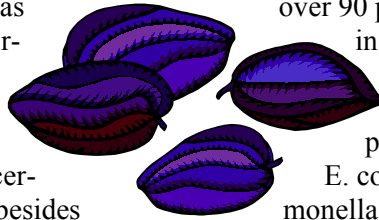
This outbreak showed the importance of the various agencies working as a team. The public depends on all of us to do the best job possible. This may mean admitting that we do not have all the necessary knowledge, equipment, or experience. A successful investigation can be lost if we forget we, as a community of professionals, must support each other.

Tara Renner

# Behold, the power of ... prunes?

A Kansas State University food microbiologist has found that certain foods, besides offering nutrition, can also serve an additional purpose -- they possess antimicrobial properties that can help make meat products safer.

Daniel Y.C. Fung, a KSU professor of Animal Sciences and Industry, and his graduate research assistant, Leslie Thompson, have tested the effect that varying levels of dried plum mixtures had on ground meat that was contaminated with common foodborne pathogens. Their research, sponsored by the California Dried Plum Board, indicates that raw meats mixed with as little as 3 percent of plum extract are



over 90 percent effective in suppressing the growth of major foodborne pathogens such as E. coli 0157:H7, Salmonella, Listeria, Yersinia enterocolitica, and Staphylococcus aureus.

Fung has previously conducted research using spices such as garlic and cinnamon to kill foodborne pathogens in ground beef. Unlike spices, which can alter the taste of meats, Fung said the plum extracts lack a "plum taste" so foods taste "normal."

Similar research conducted by scientists at Texas A&M University has found that adding dried plum mixtures to raw meat

improved the quality of reheated products by enhancing the moisture of the

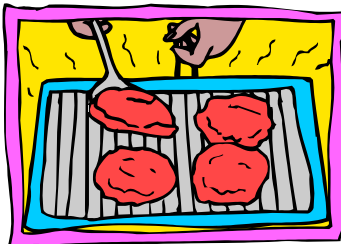
meat. Fung said adding dried plum mixtures to meat works as an antioxidant to prevent lipid oxidation, which is similar to freezer burn in meat, as well as being an antimicrobial agent to kill pathogens.

Fung said he is excited about the use of plum extracts. In addition to suppressing pathogens, he said the extract also has "good functionality" as it can enhance the moistness of meat and increase the yields.

Fung hopes to expand the research to poultry products such as chicken and turkey. Future research will involve experiments to determine if plum extracts can extend the shelf life of meats as well.

"The potential is unlimited," Fung said. "This is a win-win situation for everybody involved in food science and safety."

From KSU press release



## Can you recognize a ready-to-eat food?

Which of the following is a "ready-to-eat" food as defined by the food rule?

- Apple
- Buns for sandwiches
- Lettuce
- Meat loaf (properly cooked and cooled)

The answer is "all of the above."

Remember, food safety is our concern, not whether the food is appetizing, or

whether or not it would normally be served in its present form.

As long as the food is safe to eat, or edible, it is "ready-to-eat."

Inspectors must correctly identify such foods to determine violations of sections like 136 and 174, that cover the concepts of "no bare hand contact," and "date marking."



## "Ask Scott"

**Q. Can you give me the names of some "detergent-sanitizer" products?**

A. There are several products on the market that would meet the food rule requirement for a detergent-sanitizer. These include "Mikro-Chlor" from Ecolab and "Quat-Clean" from GFS. Other products may also work. As with all such products advise the users to read and follow label directions exactly.

**Q. I have a food service that likes to cook outside the back door of the facility on a large grill, but**

**he has no over head protection. I want to mark this, but what section is best?**

A. Section 155 is the appropriate section to mark. The food is in preparation, not in storage, otherwise section 152 or 153 could apply, or possibly 138.

**Q. While in a food establishment with a buffet, it appeared that some younger customers might be getting their hands in the food, but I didn't catch it. I want to caution the person in charge but need guidance on the code section.**

A. Turn to section 158 (c), but notice that this paragraph is non-critical. If you observe a food safety concern like you describe, mark it here. You might also quote section 96, to cite the person in charge for not assuring monitoring is on-going.



## Tip of the month

Need a case for that new thermo-couple thermometer? Instead of buying the case from the manufacturer, you might find something suitable at a local discount store. Just check out the generic cases for cameras or accessories, and you might find a case that fits, is durable, and costs much less.

Send your questions to Scott Gilliam at <food@isdh.state.in.us>, or use the address on page 2.

