



# HEALTH NOTES

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**From the President,  
Dr. Melvin N. Kramer...**

As you can see, a major feature in this issue involves food security and the threat of agro-terrorism. Food safety is now a front-line national issue. We urge you to follow these critical ongoing developments and heed steps taken and recommendations by our government and the food industry. While the breadth of our food safety expertise and services is well known to most recipients of this newsletter, we also offer equally comprehensive experience and capabilities in matters involving bio-terrorist agents (e.g., anthrax), toxic molds and other Indoor Air Quality issues. We proudly offer full-service public and environmental health consultation. Please contact us for more details.

Additional Information on any of the articles in this newsletter may be obtained by calling us at 410-484-9133 or by email at ehacorporate@msn.com.

## FOOD SAFETY— A NATIONAL SECURITY ISSUE

*Government and the food industry urge that the continuing terrorist threat requires us to guard our food supply, particularly against contaminants that damage crops or endanger consumers.* Agro-terrorism (sabotage of crops and livestock or retail food and beverage products) is not new. During World War II, several countries, including the US, investigated the use of crop diseases. Iraq is suspected of developing a fungus as a weapon causing widespread damage to staple crops such as rice and wheat. "The Cobweb" (a 1996 novel) is about bio-warfare and Iraqi terrorists infiltrating the US food supply.

The only confirmed case of agro-terrorism in the US relates to a cult in Oregon that sprayed salmonella on restaurant salad bars, sickening 750 people, to sway a local election in 1984. Experts agree that terrorists would have an easier time of targeting America's food supply than releasing anthrax in a major city. Agro-terrorism is not expensive or technically difficult. According to recent studies by the CDC and National Academy of Sciences, several pathogens might appeal to terrorists such as those for botulism, salmonella and cholera, which are inexpensive and easy to produce, transport and conceal.

After September 11, government and industry and consumer groups were calling for increased inspections and independence from foreign food suppliers. Congress considered creating a single food agency, in lieu of a so-called fragmented and conflicting system, incorporating the FDA, USDA, CDC, EPA and other agencies. Heavy opposition has historically blocked the idea of a single food safety agency, but interest in and support for the idea is growing. In the meantime, funding is increasing for food security, including greatly increasing the number of inspectors. Improvements already made involve security at USDA facilities, ports of entry and food processing plants, and coordination among agencies, including the new Office of Homeland Security. Very recently, the FDA issued the Food Security Preventive Measures Guidance for the Industry - guidelines to minimize the risk of food terrorism.

Given established safeguards, experts dispute the likelihood of a widespread terrorist attack that kills large numbers of people. There is consensus on certain important points: (1) Even only a few human casualties would incite sweeping panic; (2) Widespread crop and livestock damage could be accomplished with relative ease, resulting in huge economic losses and possible food shortages (e.g., the economic cost of the recent UK foot-and-mouth disease outbreak is valued at about \$20 Billion); (3) The task of prevention and protection is daunting - "zero risk" is unreachable; and (4) We simply do not know enough albeit the worst-case-scenario possibilities are devastating.

*Significantly, the experts also agree that the best protections are safe cooking and cleaning practices. For example, recognizing that fruits and vegetables typically eaten raw are likely targets for sabotage, they should be cooked, or at least peeled or washed. We at EHA maintain constant vigilance over all issues involving food safety, including the threat of terrorist activity. We very recently distributed an Advisory condensing the FDA's new guidelines. FDA recommendations include use of an outside consultant. Please contact us for a copy of our Advisory or if we can provide anything further.*





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**FOOD SAFETY SCIENCE**

**Total Aerobic Plate Count (TPC) . . .** Less than 100,000 CFU/gm. is the acceptable level!

**What the Numbers Mean . . .** TPC analysis shows the total viable bacteria (good and bad) present in a food sample which will grow in the presence of air. When a sample contains an elevated TPC, it may indicate the following:

- *Cooking was insufficient to kill all bacteria*
- *Cross-contamination from food contact surfaces or employee hands*
- *Thermal abuse, i.e. the food remained in the Temperature Danger Zone too long*
- *The ingredients include fresh herbs (e.g., basil, parsley, thyme) - often a source of bacteria*

**SIMPLE STEPS TO IMPROVE YOUR FOOD SAMPLE ANALYSES!**

Whenever a pasta, protein or grain salad contains raw vegetables or fresh herbs, the risk of bacterial cross contamination rises dramatically. Why? Microorganisms commonly found on produce (celery, onions, peppers) and fresh herbs (basil, parsley, thyme, rosemary) promote rapid and explosive bacterial growth when combined with a growth medium (cooked pasta, tuna, or rice). For over 20 years, EHA has urged our clients to blanch vegetables before adding them to salads. The blanching method that we advocate is simple and effective in reducing bacteria without affecting the taste or culinary features of vegetables.



Planning and allowing sufficient time for the blanching of vegetables is critical. First, gather the food items and ready a kettle or pot of boiling water and an ice bath in a sanitized container. Chop the vegetables to the appropriate size and place them in a china cap or strainer. After immersing them in the boiling water for at least one minute, rapidly chill the vegetables in the ice bath to a temperature of 40°F or below. They should now be adequately "sanitized" and ready for use.

Fresh herbs present a unique challenge. Blanching them in boiling water would destroy culinary quality. Instead, simply immerse them for 5 minutes in acetic acid (common white vinegar) and rinse thoroughly with cool water. Our success with vinegar "treated" herbs has been tremendous - excellent laboratory results and no complaints regarding taste.

As always, we urge proper hand washing and glove usage. If you nonetheless detect frequent problems during routine laboratory analysis of salads, blanching may be just the answer.

**TALKING TURKEY**

Just in time for the recent holiday season, the USDA added turkey to the list of poultry products tested for salmonella. Salmonella is responsible for 1.3 million food-borne illnesses, 15,000 hospitalizations and over 500 deaths throughout the US each year. Tests found that salmonella contaminated a striking 13% of 2,200 turkey samples from 50 plants across the country. While many plants did well, at least 1 in 5 birds was contaminated in 15% percent of those plants tested. At the worst plant, salmonella was found in half of all turkeys tested.



Fortunately, nutrition experts agree prevention is relatively simple. (1) Treat each turkey as if it is infected. (2) Thaw in the refrigerator, under cold water or in the microwave — never on the counter. (3) Wash the surface of the bird to remove external bacteria. (4) Keep utensils, cutting boards and other surfaces clean with hot soapy water. (5) Cook stuffing in a casserole - not inside the bird. (6) Use a meat thermometer. It is ready to serve when a thermometer inserted in the meaty part of the thigh (avoid touching the bone) reads 180 degrees. (7) Move the meal from the oven to the feast to the refrigerator in two hours or less. (8) Store refrigerated food at shallow depth — about 2 inches — to speed chilling. (9) Eat refrigerated leftovers in four days or less, and freeze those for longer keeping.