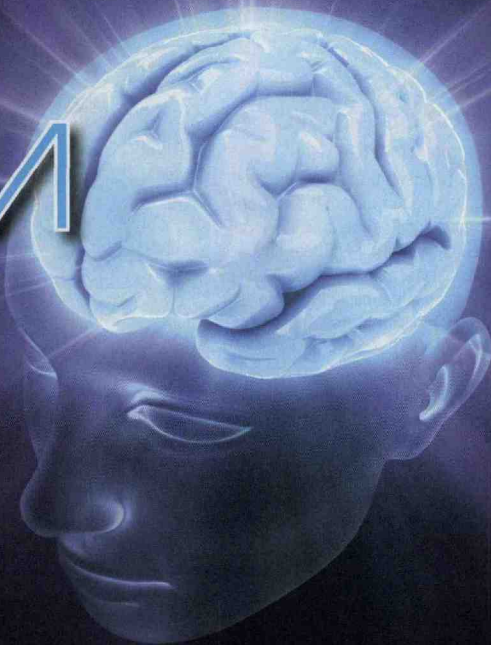


18

# BRAIN STORM



*The Food Manufacturing Brainstorm features industry experts sharing their perspectives on issues critical to the overall food industry marketplace. In this issue, we ask:*

## What plant sanitation techniques can food processors employ to improve food safety in their facilities?

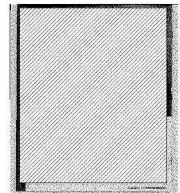
### **Dr. Elis Owens, Senior Microbiologist & Chemist, Birko**

A key aspect in producing microbiologically safe food is to create and defend a clean environment for processing operations. This is especially important for processors who are producing a fresh cut or RTE product that will be going directly from the production space to the consumer's plate without any additional pathogen reduction steps such as cooking.

Most processors are well aware of the need to thoroughly clean and sanitize their production spaces between each day's production. However, it's easy to overlook procedures that can be implemented to limit the entry of pathogens into the processing area during the production day.

For example, one area that is frequently overlooked or neglected is the potential for pathogens to be transported from outside the building or from dirty areas of the plant to clean areas via the soles of workers' boots, or on the wheels of forklifts and carts. Where possible, forklifts and carts should be designated for use in clean sides or dirty sides only, and the movement of personnel from one side to the other controlled. Access to the clean areas should also be controlled for the minimum number of openings needed for production and to allow for safe and speedy egress of all employees in the event of an emergency.

In addition, these entryways should be protected with entryway sanitizers, doorway foamers and automatic boot scrubbers that are adequately supplied with the appropriate chemical products and installed in a manner that prevents bypassing or avoiding this important protective barrier. ♦



### **Daniel Peterson, Product Manager, Industrial Vacuum Division, Nilfisk-Advance, Inc.**

Food safety hinges on identifying and reducing contamination risks at critical exchange points. Using color-coded, bacteria-resistant vacuum tools is a highly effective means to minimize the chances of cross contamination during housekeeping. Further, producers should look for vacuum accessories that can be sanitized with common disinfecting solutions or via autoclave.

Many food processors have found color-coded accessories practical and effective because color is easily communicated to crew members regardless of native language, and color schemes are more easily memorized than other systems.

While there are no federal or state regulations for color-coding cleaning tools, most examiners view this type of system positively during inspections. An informal system used in many food production facilities assigns black for floors, red for raw meat, blue for seafood, green for produce, white for finished food and yellow for hazardous areas.

Nilfisk offers a selection of vacuum tools in all of these colors. Most of its tools are made of food-grade nitrile butadiene rubber (NBR), which is extremely dense so it is less likely to pick up and carry pathogens. It is also easily sanitized. Bristles on brush accessories are made of polypropylene, which does not absorb water, bacteria, grease, petroleum products, detergents, sanitizers or solvents. Polypropylene can be autoclaved and it rinses clean and dries quickly. ♦



### **Victor Hayes Popovics, Owner, Ultimate Washer**

Food processors know that keeping work areas clean is of paramount importance and eliminating hygiene issues is critical to the survival of their businesses. An outbreak of salmonella traced back to a food establishment can negatively impact a business, which is why food processors have embraced steam heat as one of the best options for dealing with potential contaminants in processing and packaging environments.

Due to the effectiveness of steam heat in eliminating pathogens such as staph, E. coli, salmonella and Listeria, steam sanitizing has become a widely used sanitation technique. Extremely high heat is needed to eliminate bacteria and viruses — for example, norovirus and Norwalk viruses are killed at temperatures above 140°F and since steam cleaners generally operate above 284°F, they can be quite effective at killing bacteria, germs and viruses.

We've found the most effective cleaning technique is actually a process and can be broken down into three components:

1. Plan — Identify all items and surfaces that contact food product. These can range from knives, cutting boards and conveyor systems to gloves, storage areas and cleaning tools.

2. Schedule — Develop a daily schedule for cleaning and to stick with it.

3. Action — Manage the cleaning process and make sure all cleaning tasks are completed. This will minimize any chance of an outbreak.

And, of course, after cleaning, you need to clean your cleaning tools. By planning and implementing a consistent cleaning program, you can improve food safety at your facility. ♦

