

# **Fighting Cross-Contamination from footwear in your facility**

## **Introduction**

The food processing floor is a demanding habitat whirring with moving equipment, parts and people. In the bustle of this fluid and structured environment, plant management and employees face a herculean battle to protect the integrity of finished products from microbial cross-contamination.

As we know, pathogenic microorganisms – such as *Salmonella enteritidis* and *Listeria monocytogenes* – can enter the food processing environment through several routes, including raw materials, equipment and humans. Once inside, these hazardous microbes are commonly transferred to ready-to-eat food, clean utensils and sanitary contact surfaces by mobile vectors (e.g., forklifts, carts and personnel) that travel through different processing areas (1).

Plant workers, by far, are the “biggest movers” in processing facilities and are cited as a leading source of cross-contamination by federal regulatory agencies and safety associations representing nearly every food industry segment (2).

## **Boots on the Ground**

During a typical workday, employee footwear is continuously soiled by organic matter on food plant floors. Dirty boots and shoes can quickly spread microorganisms throughout the processing environment, placing the safety of products at risk. Given the gravity of this, processors – in mandated written food safety plans – limit and segregate the movement of plant employees in designated processing areas (i.e., the zone concept). Scores of plants are also embracing the inherent value of footwear hygiene programs and employing modern cleaning and sanitizing systems to kill microorganisms on boots and shoes.

## **High on Hygiene**

A well-conceived and executed footwear hygiene program is a significant investment that can greatly reduce cross-contamination in processing facilities. In the article, *Is Your Sanitation Program Starting on the Right Foot?* (3), processors are provided with a detailed starter template for building a successful program. Highlighted below are some selected observations and recommendations from the informative publication:

- Ideally, footwear hygiene programs should be customized to meet a facility’s specific needs. When deciding on a footwear cleaning and sanitizing program, processors should consider a number of factors, such as: How many employees work in the facility? Is there a dedicated footwear program with a properly selected tread pattern? What is the soil load? Is the facility wet or dry?
- Depending on the size and type of facility, food processors can choose from a variety of boot washers and scrubbers, foot baths, and footwear sanitizing units to utilize with cleaning and sanitizing chemicals to provide maximum pathogen reduction on footwear.
- All employees, from management to line workers, must be educated that footwear is a major vehicle for cross-contamination. Determining the exact moment or source when cross-contamination occurs in the processing environment is an extremely difficult task. As such, plant personnel should be provided with continuous and relevant training to help stop cross-contamination in its tracks.

With or without a dedicated program, plants must assure that employee footwear is cleaned and sanitized before entering critical areas for maximum pathogen reduction (3).

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## Truth Be Told

While cleaning and sanitation practices have improved substantially over the past several years, some have been shown to be ineffective in killing pathogens and can actually result in the spread of microorganisms from footwear. Among the most frequently mentioned sanitation shortcomings are manual sanitizing foot baths, shoe and boot covers, and equipment for the manual scrubbing of footwear with brushes.

Foot baths, which have been a staple of sanitation programs for decades, are of particular concern for sanitation professionals who caution that poorly monitored baths can become bacterial breeding grounds. Organic material, they warn, can accumulate in the container to the point where the sanitizer is no longer effective (4). Messy foot baths can also send the wrong message to auditors and customers. It is also critically important for processors to be aware that foot baths can introduce unwanted moisture into the environment.

## Best Systems

Employee hygiene practices that are dependent on manual intervention are prone to variability, a factor that can undercut contamination control efforts. The advent and availability of fully automated cleaning and sanitizing systems, however, offsets this knotty dynamic, allowing footwear to be cleaned and sanitized effectively, quickly and economically.

[Best Sanitizers, Inc.](#), a leading provider of cleaning and sanitizing chemicals and equipment designed specifically for the food processing industry, offers a line of boot scrubbers and sanitizing equipment to help reduce the risk of cross-contamination in your facility. Best Sanitizers, Inc. wants to remind food processors that sanitization can only occur on a clean surface and offer a line of boot scrubbers and footwear sanitizing equipment to help get the job done.

[The BSX Boot Scrubber™ Series](#) is available in different size units to fit the needs of large and small processors alike. The system employs [Alpet No-Rinse Quat Sanitizer](#) as a cleaning solution which combines with the unit's mechanical action to clean soil and debris.

Once boots are clean, Best Sanitizers recommends following up with a sanitizing step. The [HACCP SmartStep™](#) and the [HACCP SmartStep2™](#) are footwear sanitizing units that use compressed air to deliver a fresh dose of [Alpet® D2 Surface Sanitizer](#) or [Alpet® D2 Quat-Free Surface Sanitizer](#) to the soles of footwear. The HACCP SmartStep2 sanitizes both boots at the same time, and is a walk-through system making it ideal for facilities that require greater throughput. The original HACCP SmartStep is a smaller unit that sanitizes one boot at a time, but with a smaller footprint, can go practically anywhere footwear sanitization is required.

Additional information on the company's cleaning and sanitizing equipment can be obtained at [www.bestsanitizers.com](http://www.bestsanitizers.com).

### Sources:

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PO Box 1360  
Penn Valley, CA 95946  
888-225-3267 / [www.bestsanitizers.com](http://www.bestsanitizers.com)

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