



Episode Twenty Six - Pack shed zones, surface cleaning and sanitizing

Welcome to episode 26 of Food Safety Bites, brought to you by the University of Wisconsin-Madison, and funded by the USDA Food Safety Outreach Program. This is your host Harriet Behar. This episode is **pack shed zones and surface cleaning and sanitizing**. In these podcast episodes, I will identify issues, and provide suggestions for how to reduce various fresh produce contamination risks and keep your customers safe. We will not talk in detail about what is required for a GAP audit or a FSMA inspection. If you want more information on those, please see the links on the website where you found these podcasts.

Your pack shed has various areas that present more or less contamination risk to produce safety based on how close they are to the food contact zones. Using a pack shed zone approach can help organize your cleaning and sanitizing activities and help you to prioritize the areas where you should spend the most time cleaning. These zones could be somewhat subjective depending your specific situation, but in general, Zone 1 is the food contact zone and therefore where you should spend the majority of your cleaning, and then the subsequent zones move further from the food contact zones. Understanding these zones on your farm using the examples in this episode will help you develop plans to manage those contamination risks the most efficiently, since most of us do not have extra time to spend cleaning and sanitizing and want to spend the time we do have on the highest risk areas.

Zone 1- These are areas where there is direct contact with produce and has the largest impact on produce safety. Zone 1 items include harvest and storage bins, conveyors, belts, brushes, rollers, sorting tables, counters, racks, utensils, harvest tools, sinks and tanks as well as worker's hands. These are the things that will touch the produce directly. These surfaces should be cleaned and sanitized regularly. Depending on the season and use, this often means at least daily. Zone 1 areas could be cleaned and sanitized the beginning of the day, during handling when dirt accumulates, and then again at the end of the day. Some things like harvest totes for root crops might be rinsed when they are visibly dirty, but scrubbed and sanitized less frequently, but still regularly throughout the season. But things like sorting tables and harvest tools should be cleaned and sanitized each day that they are used. Since Zone 1 areas are the top priority, make sure that corners that are hard to clean, or areas that are difficult to see such as inside a piece of machinery, are cleaned using the most appropriate brushes or scrubbies, even a dedicated toothbrush when needed. Your workers should be trained and given the equipment and time to do the job right. Even when you do not see dirt, cleaning means scrubbing with detergent before using a sanitizer and not just spraying the area with a hose and then sanitizing. Remember, these activities are done to lessen the risk of contaminants we cannot see. High pressure hoses should be avoided, since they can result in uncontrolled sprays that can spread biofilms and unseen contaminants to other surfaces.

Zone 2 is equipment that is close to produce and food contact surfaces such as the top of the wash tunnel, the outside of the brush washer table, the walls around the sorting tables etc. These areas pose a risk because dust, dirt and filth can build up there and periodically fall into water or onto produce that is on Zone 1. Workers could touch the outside of equipment when



they are moving around it, and then touch the produce when removing it from the equipment. Since zone 2 adjoins food contact surfaces, these areas should be cleaned and sanitized regularly, but perhaps less frequently than Zone 1.

Zone 3 is the other areas inside the packing area. This includes floors, drains, equipment such as pallet jacks or carts that move produce, overhead storage areas or wall storage such as shelves above food contact surfaces, areas where cull produce is kept, and garbage areas. Consider how you will control the risk factors these areas present, such as being attractive to pests or places where bacteria could be present and accumulate. Garbage cans should have lids. If a smashed melon is on a pallet jack, clean that up before using it again, bacteria would love to grow there.

Zone 4 are areas outside or adjoining the packing area. This would include where packaged produce is kept such as warehouses and loading docks as well as areas outside of building. Break areas for workers where they eat or smoke should be in zone 4. Think about if you have big mud puddles right outside of the packing area or run off from manure storage. This might be tracked into the pack shed. When considering zone 4, try to eliminate the transfer of contaminants from this zone into the other zones. Workers should remove aprons and gloves and perhaps even change footwear between zone 4 and the other zones.

Cleaning and sanitizing food contact surfaces. These include all counters, screens, tables, sinks, tanks and mechanical equipment. Surfaces should be smooth and able to be cleaned. Using old wooden pallets for washing produce is risky because wood is porous and difficult to clean well, and also might scratch produce or splinter off. Knives, brushes, scrubbies and workers hands are also in contact with the produce. Consider preparing your pack shed the night before or have a couple of people do this when others are harvesting, so you can get to washing the produce as soon as the crew gets back from the field.

When cleaning surfaces or equipment, have clear instructions and provide training so everyone is doing this important step the correct way. First remove all excess dirt or debris from the surfaces using a dry brushing or scraping. You can use low pressure water as long as you are careful not to spray dirt on adjoining areas. If there is equipment that has difficult areas to reach, take it apart so it can be cleaned, use a dedicated small brush or other tool to get in corners if need be. Wet down the surface and then apply detergent or dish soap that will create a lather to hold dirt in suspension and break down the biofilms. Scrub the area to lift the dirt and invisible microbes from the surface into the foam. Rinse the surface with low pressure water to prevent over spray, until it is clean. Make sure all soap and dirt have been removed, if not, repeat. After the clean rinse, let dry and then spray with a sanitizer using the correct concentration, using a spritzer bottle or some sort of sprayer. Let the equipment air dry after the sanitizer following the label instructions. If there is standing water on the floor, use a squeegee to push it to the drain to lessen the presence of that dirty water where it could splash on produce or stacked boxes. Clean your brushes, scrubbies and squeegee after use and hang to air dry.

So that's it for this episode of Food Safety Bites, the next episode is biofilms. This is your host Harriet Behar brought to you by the University of Wisconsin Madison, talk to you next time!