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LISTERIA CONTROL AND SANITATION

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Where To Start?



- A good question.
 - It's a big plant with lots of hiding places
- Start at the highest risk area first – The RTE areas!
 - Specifically any equipment that has RTE food contact surfaces.
 - ✦ Slicers, check weighers, peelers, belts, vac-pac equipment etc.
 - ✦ Tables, utensils, cutting boards, anything that touches RTE product.



1- Cleaning Of Equipment:



- If there are Listeria / Bacteria colonies hiding in your equipment!
- Then everything else you do to clean your plant and reduce cross contamination may not prevent a positive result.
- Taking equipment apart, cleaning all parts and surfaces and then aseptically reassembling it is the only way to ensure the elimination of the equipment from the “Control” equation.
 - Swab the equipment parts dirty and then after to verify the contamination level and the efficacy of the cleaning.
 - Take it down to the frame at least the first time. Then the next time only to where viable bacteria were detected.
 - Use alcohol cleaners/sanitizers, steam , gel sanitizers and lots of manual cleaning.
 - Do your PM’s while everything is apart
 - Do all the RTE – FCS equipment not just the slicers.



2 – Environmental Cleaning:



- Once the RTE equipment is clean inside and out start the next phase and get control environmentally.
- Definition: Still in RTE areas, surfaces next to and in the area of the RTE product and equipment.
 - Walls, Floors, Drains, Cooling units, Overhead pipes – conduit – hangers – structure etc
- Why? During normal sanitation aerosols will carry melted fat, bacteria and other soils into the air and they settle everywhere. (Just BBQ with glasses on! You will see what I mean)
 - These soils will deposit everywhere and provide a niche for bacteria to grow. They are not cleaned regularly and can contaminate by air flow or condensation.
- Swab all surfaces first to determine the current load and risk.
- Then clean everything and swab again.
- If you can control bacteria environmentally then you have reduced further the potential for the equipment to be contaminated and cause a problem some time in the future.



3 – People In The RTE Areas



- Ok, you've cleaned the equipment inside and out and all environmental structures are clean. Now what?
- We need to ensure that employees handling product, management, area suppliers or anyone going into RTE areas does not cross-contaminate to the product or the equipment negating what we have done so far.
- How?
 - Training of all employees on proper GMP's. Be strict. Include tests and swab for proof.
 - Wear proper gear designed to eliminate contamination. Latex gloves, sleeves, fiber hair nets, plastic aprons, mouth covering headgear etc
 - Use alcohol based sanitizers on gloved hands, FCS's, etc before, and during production.
 - Employee awareness that they are handling food that if contaminated may cause illness.

Other Things That Have An Effect:



- There are many other things that together with Steps 1, 2, & 3 should be done to improve control.
- Such As;
 - Proper sanitation systems, tools, like enough labour, hot water, time to clean etc.
 - Proper chemicals designed specifically for the soils you have in your plant.
 - A reliable trained crew, with supervision and monitoring available.
 - Cooperation with maintenance and production for repairs and set up.
 - Only allow those who really need to be in the RTE in the area regardless of shift.
 - Designated RTE tools, COP tank, floor jacks etc
 - Product and materials should enter and leave the RTE at the doorways only. Drop off and pick up of garbage, dry goods etc.
 - Reduce access to entrances into the RTE during production by as many as possible.
 - Keep doors closed as much as possible.



What's After The 3rd Step?



- Once you have a program in place that on a schedule monitors and repeats the tasks in the following areas you should have good control of the cross-contamination potential in your RTE Areas.
 - 1 – RTE Equipment
 - 2 – RTE Environment
 - 3 – GMP's for people in RTE Area

What's Next?

Repeat the same process for steps 1, 2, & 3 for the RAW side of the plant!

(The key is to first eliminate the contamination sources at the most critical spots and then spread out the control from there across the plant and from RTE to RAW)

Remember It's A Program On A Schedule!

Other Things To Do That Will Help You Gain Control!



- **Follow the science. Do TPC swabs (or L-SPP) to determine that contamination exists. Also to determine the frequency of cleaning for the program moving forward.**
- **Operational Sanitation. Clean during production. Spray all FCS's with an alcohol sanitizer before start-up but after set-up, at breaks, lunch and shift changes.**
- **Clear lines during breaks and lunch.**
- **Use Steam cleaners on dry setting to clean electronics (Check with your mntc first)**
- **Use hand sanitizers and boot washers with sanitizing to control soils coming into RTE areas.**
- **Large doorways into RTE areas should be only used for product. Employees should use people-doors only when available.**

Other Things To Do That Will Help You Gain Control!



- Don't forget about blast coolers, holding coolers, RTE hallways etc. Your RTE product spends more time in these areas than in the packaging rooms. The same 1-2-3 steps for these areas.
- Floor scales need to be cleaned weekly.
- RTE Coolers should be cleaned weekly if possible.
- Try and schedule your cooking and packaging inventory so that RTE product does not stay longer than 4 days in an RTE area before packaging. Package product as fast as possible after cooking and cooling. Remember production is measured by what goes into a box not what comes out of the house.
- Look for biofilms in normally moist areas.
- Use a 5% hypochlorite solution monthly to control mold.
- Fog the RTE areas weekly with 1000 PPM Quat or PAA.
- Fog tarped over equipment with alcohol based sanitizers.

A word about keeping it dry.



- **The golden rule for RTE areas, keep it cold and DRY!**
- **Replace door foamers with granular floor sanitizers**
- **Vent shrink tunnel and peeler steam out a hood.**
- **Have forming head cooling water drain into a drain, not onto the floor**
- **All water fittings should be tight to stop leaks.**
- **Cooling units should be have enough air movement volume and temperature to dry an area quickly BEFORE production starts.**
- **Adjust defrost cycles to have all units on before production starts.**

What about the product itself?



- One thing we have not discussed is the potential for the product itself being the source of Listeria or other bacteria.
- Have a good raw meat receiving program that checks suppliers product for visible contamination and freshness but also do micro on the material and feedback to the suppliers the results and your expectations otherwise you will change suppliers.
- Validate your kill steps (cooking and HPP if you have it)
- If you make cultured products (salami, 80-day ham, products with cheese etc) cover them and store separately from the other products if possible.

Questions?

