ENVIRONMENTAL SWABBING

FOOD SAFETY SCHEMES MANUAL - APPENDIX 4

NSW GOVERNMENT Food Authority

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Procedure for *Listeria* spp. environmental sampling[1]

Environmental sampling

Environmental swabs can be taken from Zone 1 or Zone 2 areas within the plant and can be taken over any size area with any suitable implement as long as the implement is sterile and clean. Suitable swabbing implements include cotton buds, eye patches and gauze squares. The surface area swabbed will vary according to the size of the area to be examined.

The area to be swabbed should not contain any chemical residues that may inhibit or interfere with the growth of *Listeria* spp. If the presence of chemical residues is suspected, the sampling should either be aborted, or the sample should be submitted along with a note outlining the suspected presence of residues.

Locations in the processing area most prone to contamination by *Listeria* spp. shall be identified and procedures subsequently implemented to control the occurrence and spread of *Listeria* spp.

Swabbing techniques

a) Wherever possible swabs should be taken during full production or before equipment clean-up. Swabs must not be taken immediately after equipment has been cleaned as residues of detergents and sanitisers will reduce the viability of any Listeria present. If samples must be taken during non-production, wait for several hours after cleaning or sanitising.
b) Use one jar of nutrient broth or 0.1% peptone per sampling. Open the broth jar and place lid, face up, on a **clean** bench.
c) Remove the swab from its tube and lightly touch the end of the swab to the surface of the solution. Do **not** immerse the swab completely in the solution.
d) Rub the swab slowly over/in the surface to be sampled. A surface area of up to 50cm^2 can be swabbed.
e) Return the swab to the transport medium container.
f) Use one jar of broth per sampling. Once you have taken all swabs needed discard the broth. **Do not re-use**.
g) All swabs should be held at 4°C during transportation.

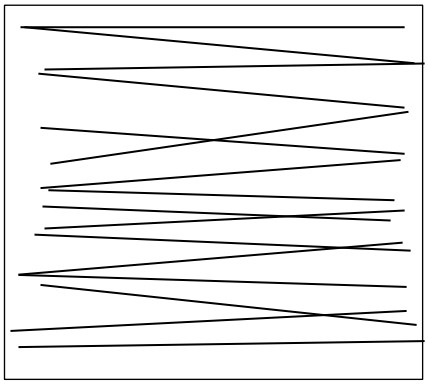
[1] Reproduced from ADASC – 1999 – Australian Manual for Control of Listeria in the Dairy Industry

For gauze swabs follow this procedure:

a) Sterile gauze can be used to swab large surface areas.
b) Aseptically open the individually wrapped gauze pads. Open a vial of rinse solution and moisten a pad with 10ml of solution.
c) Holding the pad aseptically with sterile gloves, swab the surface by vigorous rubbing. An area of several square metres can be effectively swabbed.
d) After sampling, aseptically place the swab into a sterile container for transport.
e) All swabs should be held at 4°C during transportation.

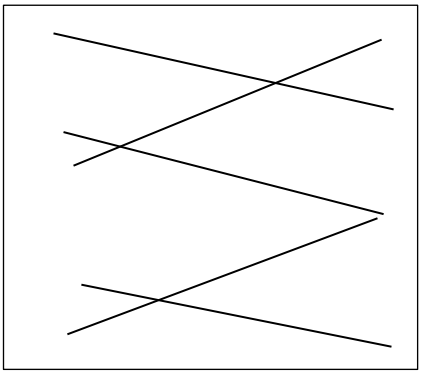
To swab correctly wipe the swab in a zig zag motion across the surface area. The zig zags should be close together to cover as much of the surface area as possible, as illustrated below. If using a cotton bud for a swab, the bud should be rotated as it is wiped across the area. Once the swab has been drawn over the surface area once, re-swab at a 90° angle to the original swab and place the cotton bud in the transport vessel.

Figure A4. Correct and incorrect swabbing techniques



Correct swabbing method

(up to 50cm^2)



Incorrect swabbing method

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