



Dear Food Safety Expert

I just got back from an industry meeting where some of my colleagues were discussing the importance of an effective environmental sampling plan for listeria. I don't get it. Why would I spend money to test the plant when what really counts is the product?

PERPLEXED FOOD QUALITY MANAGER

DEAR PERPLEXED,

In the battle against the microbes, the microbes have a lot of advantages. You cannot walk through a facility and suddenly spot *listeria* lurking in the corner. *Listeria* can and will transfer onto any obliging carrier – like the wheels of a cart or the boots of an employee. So you are battling against an enemy that you cannot see, hear or smell and that can multiply easily.

To create a line of defense against such a formidable foe, you do not want to wait until *listeria* has penetrated your defenses and contaminated your product. If you just test product, then you will only know when your systems have failed. Better to take the battle to the floor with a good environmental sampling plan.

So what makes a good environmental sampling plan? The first rule is to be aggressive. Seek out the *listeria*. Sample the places where you are likely to find it. When you swab, don't be timid. Treat it like a victory against the enemy when you find a positive for *listeria* because now you can take corrective action to eliminate one of its hiding places. If your measurement and reward programs discourage people from finding a positive, then you will not have an effective program.

While you will want to sample sites where you have found positives in the past, you need to make sure that you keep rotating the locations that you do sample. A sign of a poor environmental sampling plan is the sanitation manager knowing where and when you will be taking samples and making sure that those twenty or so sites get an "extra" cleaning the night before. If you keep rotating when and where

you take samples then you are more likely to measure the plant's typical performance – which is, after all, what you want to know.

Another common question about environmental sampling programs is where to sample. Many companies have adopted "zone" approaches: dividing the plant into zones based on relative risks. Don't just restrict yourself to the end point of the process – the packaging room. Include other locations throughout the plant to see what could get into the packaging room environment.

The bottom line, however, is this: If you find *listeria* and do not react, you have defeated the whole purpose of the environmental sampling plan. There is no room for complacency in a good environmental sampling plan. You must follow up with targeted sanitation at that site and then you

If you keep rotating when and where you take samples then you are more likely to measure the plant's typical performance – which is, after all, what you want to know.

must monitor that site until you are sure that your corrective action measures have been effective. Ideally, you should also try and figure out what pathway brought the *listeria* to that site in the first place.

Finally, a good environmental sampling plan can be an early warning indicator for change in your process. If you use the data generated by a regular environmental sampling plan you will start to notice trends that can help you manage your business more effectively.

Lynn Leger is Food Enterprise market development leader for DuPont Canada Inc. She can be reached at lynn.leger@can.dupont.com