Tighter control on salmonella in animal feed

The Biological Hazards Panel (BIOHAZ) of the European Food Safety Authority (EFSA)

Hygiena

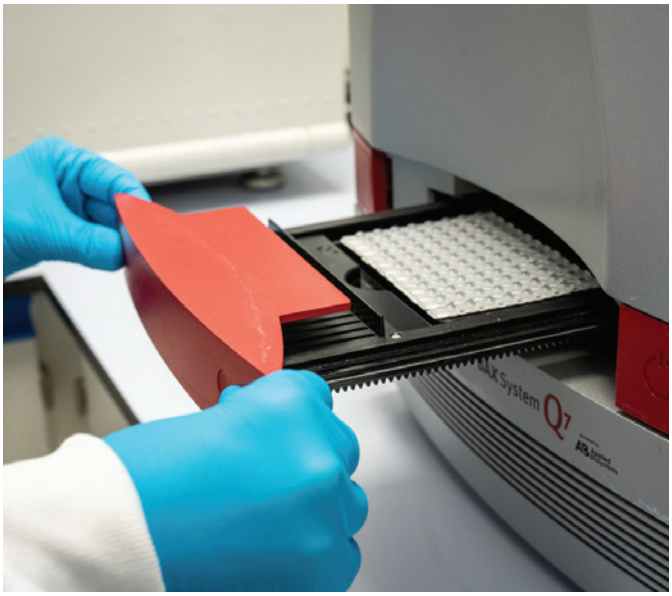
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The Biological Hazards Panel (BIOHAZ) of the European Food Safety Authority (EFSA) has recently highlighted animal feed as a potential source of Salmonella.

The Panel's Chair, Dan Collins, has said, "Eliminating Salmonella in animal feed, even before it gets to the farm, will contribute to reducing Salmonella in our food." Svenska Foder AB, one of Sweden's major feed manufacturers for both hobby and industrial farmers, is committed to eliminating microbiological contamination in their feed. The company is well aware that any contamination in animal feed may lead to the animals becoming colonised with the bacteria and, ultimately, to Salmonella entering the human food chain.

Dr. Ulf Thorpert heads the laboratory in charge of testing feed ingredients and manufacturing areas to ensure they are free from Salmonella, and his team knows that time is of the essence. If feed ingredients are held pending test results, manufacture of products is delayed and farmers' orders are not fulfilled.

If Salmonella is detected within feed, then the source must be isolated and destroyed or sanitized. The quicker and more accurate both of these processes are, the lesser the chance that contaminated feed will reach the farms.



TIME-CONSUMING PREVIOUS METHOD

For testing Salmonella in feed products, the NMKL (Nordic Committee on Food Analysis) has approved eight protocols. The most common of these utilises Rappaport–Vassiliadis (RV) broth and agar plates and was previously used for all Salmonella testing at Svenska Foder AB. Dr. Thorpert and his team of scientists found the RV method extremely time-consuming, as it took three days to obtain a result.

They were also frustrated that the method could not stand up to the complex samples that constituted a large proportion of their daily workload, where competing bacterial flora would overgrow the Salmonella colonies, making them difficult to detect. The RV method requires analysis of each colony, making this procedure very labour-intensive and prone to false results.

TIME SAVINGS WITH THE BAX® SYSTEM

The Svenska Foder AB laboratory decided to evaluate the BAX® System Salmonella assay, which is approved for Salmonella testing in all foods, feed and environmental samples by both AFNOR and NORDVAL. The group saw an astounding drop in the time to result with the BAX® System – from 72 hours to 24 hours.

The two days they save are very important, as feed ingredients can thus be released two days earlier, and customers' orders can be met more quickly. If the result is positive, Svenska Foder AB knows more quickly about a contaminated area or ingredient and can take steps to eradicate the contamination.

EASE OF USE

Not only are the BAX® System results produced much more rapidly, the system is very easy to use, and the design of the software plays a large part in this. Test results must be clear and concise, particularly when the method is new and unfamiliar. The display screen of BAX® System results is very easy to interpret, with little opportunity for confusion. As Dr. Thorpert said, "We like the simplicity of reading the results – you just see green or red lights!"

The Svenska Foder AB laboratory has successfully integrated the BAX® System PCR technology into all of their Salmonella testing. They have been so happy with the results and time savings that they are looking to validate the assay for yeast and mould.

"We are extremely pleased with the BAX® System, its ease of use, the confidence in results that it gives us, and the confidence it gives our customers," concludes Dr Thorpert. ■