WHERE TIME IS OF THE ESSENCE

New Oxoid Salmonella Rapid Culture Method simplifies the *Salmonella* testing procedure and saves valuable time for Keith Jones at Dunbia, Preston, UK.

With businesses in Northern Ireland, Wales and the North of England, the Dunbia Group specialises in the provision of red meat and meat products to food retailers and food service providers supplying some of the largest supermarket chains in the UK.

The Quality Assurance laboratory at the Preston site serves their local abattoir and retail packing plant, performing routine microbiological testing on raw meat, meat product, carcass sponges and environmental swabs. The laboratory has a relatively high throughput for its size, processing around 200 samples per week, and is CLAS accredited for food pathogen testing, including *Salmonella, Listeria* and *E. coli* O157.

Laboratory Manager, Keith Jones, describes his role as the 'site policeman', monitoring processes to make sure they are as hygienic as possible and examining end-products to make sure they meet microbiological standards. There are many demands on his time; both outside of the laboratory and within. Time-saving procedures are an attractive option to him, providing they can be shown to be as reliable and effective as the alternatives.

Keith is currently trialling the new Oxoid Salmonella Rapid Culture Method; Oxoid ONE Broth-Salmonella and Oxoid Salmonella Chromogenic Medium II (OSCM II). Here he describes his findings so far.

Time-saving procedure

"As a CLAS accredited laboratory, we have to validate a new method against our existing method before it can be added to the CLAS accreditation scope. We are, therefore, in the process of comparing Oxoid's new rapid culture method to our current *Salmonella* culture method.

"The new method appeals because of its speed and simplicity. It involves just one enrichment step and one plating step. I have ONE Broth-Salmonella supplied on standing order, in bottles, ready-to-use. So all I have to do is add the sample and incubate. The following day I streak samples onto OSCM II plates which I prepare in-house.

"Traditional methods for *Salmonella* testing are very cumbersome, with several different stages. With the Oxoid Salmonella Rapid Culture Method, there is less preparation, fewer incubations and faster results. This is extremely important to me as it frees up my time for other important tasks; I'm not tied to the bench so much!

"The simplified procedure also helps to minimise the potential for error. The more steps there are, the greater the chances of making mistakes that could lead to false results. Using the Oxoid Salmonella Rapid Culture Method reduces such risks."

Promising results

"I hope to collate sufficient validation data this year for the Oxoid Salmonella Rapid Culture Method to be added to our scope early next

year. So far, I have tested 30 sets of spiked beef mince samples. The samples were inoculated with varying levels of *Salmonella* Poona from 100 down to 10 colony forming units. I chose beef mince because of its high background flora - I thought this would be a good challenge for the method.

"The results were impressive. OSCM II differentiated *Salmonella* from the background flora very well indeed. The method was also sensitive enough to detect low-level inoculations and so it should cope well with naturally contaminated samples. In meat and meat products, the presence of *Salmonella* is usually due to faecal contamination and so the organism would normally be present in fairly large numbers. Nevertheless, the results so far are promising and I feel confident that this method would perform well with both high and low-level contamination.

"The next stage of validation will be to test the method on naturally contaminated samples. These are hard to come by in the meat industry now but hopefully we will have been able to collate enough information by the end of the year."

For more information on the Oxoid Salmonella Rapid Culture Method please see pages 6/7 or tick 5 on the reply paid card. REPLY 5