Salmonella and eggs survey

Currently salmonella is back in the public's eye and this is, in part, due to the recently published EU report on the prevalence of salmonella in table egg laying flocks.

This study was a baseline study that was conducted on commercial large scale table egg laying hen flocks of at least 1,000 birds that was carried out across all member states in the 12 month period commencing 1st October 2004 and ending 30th September 2005. Norway (a non-EU country participated in the study on a voluntary basis.

The study was carried out in accordance with the zoonoses legislation of the EU that has as its aim the reduction of food borne diseases in the EU including Regulation EC/2160/2003 which requires an EU target to be defined for reducing salmonella prevalence in laying hens.

Table 1. The 20 most frequently isolated salmonella serovars in the EU survey.

Name	No. of isolates
S. enteritidis	3340
S. infantis	541
S. typhimurium	341
S. mbandaka	289
S. livingstone	179
S. virchow	161
S. hadar	130
S. ohio	113
S. subspec. I Rauform	105
S. braenderup	99
S. montevideo	90
S. agona	77
S. tennessee	73
Other specify	64
S. bredeney	64
S. anatum	42
S. seftenberg	39
S. newport	35
S. kentucky	31
S. indiana	28
S. rissen	28

In total 5,317 holdings were sampled but a clean dataset of 4,797 holdings was used for analysis purposes.

Globally across the EU some 20% of these holdings were bacteriologically positive for Salmonella enteritidis and/or S. typhimurium and the levels in individual countries ranged from 0 to almost 70% and a significant proportion of the holdings were defined as positive on the basis of just one or two positive samples.

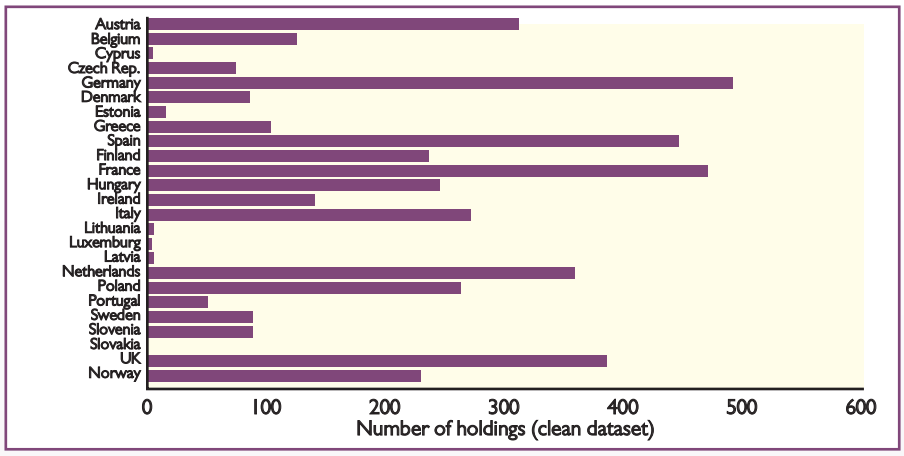

Fig. 1. Data cleaning, salmonella in laying hens holding in the EU and Norway 2004-05.

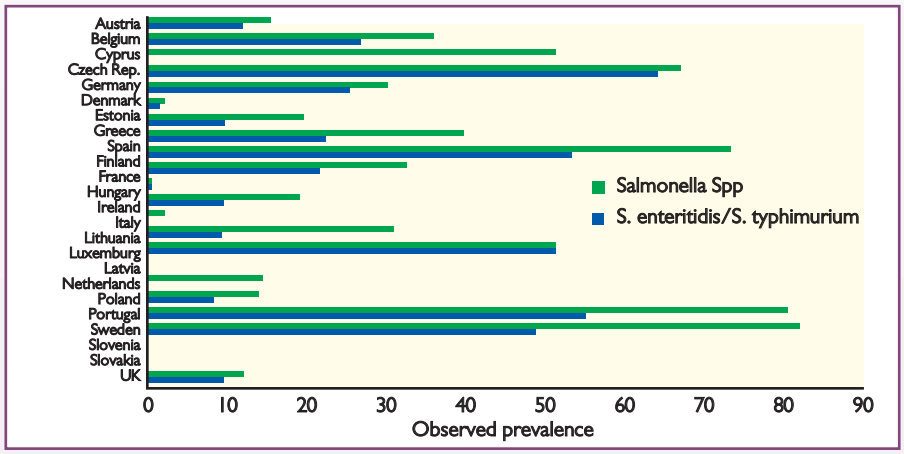

Fig. 2. Salmonella holding observed prevalence in the EU 2004-05.

In the final analysis no samples from Slovakia or Malta were included as neither country had any samples that met the criteria set out for those samples used for the analysis.

Holdings having flocks that had been vaccinated against S. enteritidis were less likely to be positive for S. enteritidis. The five most frequently isolated serotypes in descending order were S. enteritidis, S. infantis, S. typhimurium, S. mbandaka and S, livingstone.

The test results are summarised in Figs. 1 and 2 and Table 1 summarise the serotypes isolated.

Obviously this data will, in due course, play a key role in defining base line levels for future EU efforts to improve the situation with regards to salmonella in table egg flocks and hence table eggs. In the meantime the results beg some interesting questions.

When there is such a noticeable difference between individual countries should customers take this into account when sourcing eggs for their operation? Surely, the answer must be 'yes' unless a particular supplier can satisfy them that they have an acceptable status.

In this context customers would be unwise to import eggs from countries such as the Czech Republic, Spain, Poland and Portugal unless they were totally satisfied about the status of the supplying flocks and the management controls that were in place. ■