

# Protecting consumers from ST infection

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With *Salmonella Typhimurium* (ST) infection control in layers, the Australian layer industry has made a significant contribution to human health.

The farmers doing this are putting their own money into it with 10-12 cents per bird in vaccine and the cost of administration (somewhere from very little to 15+hatchery cost cents per bird).

We've developed some data regarding the effect of the vaccination program of Vaxsafe ST in layers, on the number of human cases of ST in NSW. We thought the graph (right) may be of interest.

The NSW Dept of Health has been working on many aspects of reducing *Salmonella* disease and has recently had to investigate Human *Salmonella Enteritidis* (SE) cases acquired locally. Worldwide SE is very poultry associated but it is a new problem for Australian producers.

Interestingly none of these cases were traced to vaccinated farms.

Human cases in NSW had been increasing in years 2006 through to 2014. Our ST vaccination started in earnest in 2014.

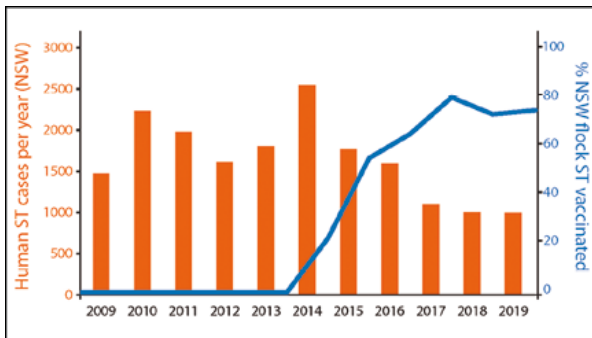
We currently estimate 75% of birds in NSW are vaccinated with our ST vaccination program during the last three financial years. The beauty of this data is it records the overall effect, not just one farm/vets/pundit's experience/opinion.

I do believe that there were a big combination of good things changing all at the same time including:

1. Refrigeration in supermarkets
2. Improvements in washing eggs – Dr Simon Shane, Consultant Poultry Veterinarian, told me that they have seen human ST cases drop in the USA when they standardised washing and drying of eggs. Unfortunately I have never tracked down this information.
3. Vaccination
4. Food handling in stores
5. Cracks have been a perennial problem in the industry.

Many consumers are so stupid that they always think that they are getting a bargain if they can buy a cracked egg (at the farm gate) and some farmers in the 1980s had to crack more eggs to keep up with the demand.

It was a convenient story that



outbreaks were caused by the bad eggs in the industry (and not the majority of the industry who would never put the public at risk) so perhaps the big guys might still appreciate having the small cowboys to blame.

Of course the industry didn't encourage the idea that ST had any internal transmission. It was always on the outside (dirties/seconds) and never inside the egg.

The importance of each? Lets invoke best practise.

We do not take all the credit, as ST can come from other non poultry sources (of course it would perfect if the remaining 1,000 cases p.a. originated from other sources) or the data was skewed by one big outbreak (which probably happened this year). The fact is that 90% of the cases are sporadic.

I think it is amazing that ST vaccination has been adopted so widely – mainly by industry leaders. Of course the remaining 25% are bird numbers, not farms.

With more encouragement to have these last (numerous) small farms vaccinated, we may possibly reduce another 20%+ cases.

Accomplishing this would increase the return on vaccination for all users – the current ones and the new ones taking it up.

The return is in product quality of the egg, and branding strengthening the image of eggs as safe.

Short of setting up an Australian eggs vaccination program (something like the Lion brand in the UK) farmers

should be encouraged to vaccinate. This is especially true, as they are not measuring effectiveness (number of contaminated farms/eggs) and getting feedback on the impact of vaccination on their farm.

But the real prize is protection of the consumer.

Of particular worry is the small uptake of vaccination in western states (from our sales) and the predicted lack of protection.

A comparison of ST human cases by state may further strengthen our belief that vaccination is having an impact.

A further enhancement would occur if all the hatcheries offered day old vaccination of replacement pullets in order to start a vaccination, thereby making it easier for farm participation.

It is sometimes very easy to get something started and moving in one direction, but as time goes on initiatives have a tendency to fragment.

"Why should I vaccinate if it is not a problem?" "I am changing to a cheaper solution" etc.

We are hopeful this can be minimised by sharing the real story.

