

NSW Implementation of 4.2.2 - Key food safety indicators and systems verification for the poultry meat chain

Background

A new national standard for the poultry meat industry, developed by Food Standards Australia New Zealand, was gazetted in 2010 with a 2 year implementation period. The new Standard aims to strengthen food safety and reduce bacterial contamination of poultry meat, thereby reducing the risk of illness.

Primary Production and Processing Standard for Poultry Meat (Standard 4.2.2) applies to growers and transporters of live poultry, poultry processors and poultry product transporters.

From 1 January 2013, poultry growers (with >100 birds) will need to become licensed with the NSW Food Authority (the Authority) and develop a food safety management statement (FSMS) that is subject to a verification program. NSW poultry processors are already licensed and have audited food safety programs which comply with the standard and the current audit program will remain in place.

Details of the new arrangements are on the NSW Food Authority's website at www.foodauthority.nsw.gov.au/industry/industry-sector-requirements/meat/poultry

Rationale

In anticipation of the need to undertake appropriate and effective food safety system verification of this sector, the Authority is developing a new intervention model that can enhance efficiency in delivering frontline services. The new model will build upon the current priority classification system and focus on areas of risk by monitoring key food safety indicators (KFSIs). It aims to harness current practices and available information to provide a more targeted and efficient approach to verification.

The Authority is cognisant of industry concerns that there could be potential duplication of audit systems on farm and unnecessary controls. This has been a key factor in the Authority's implementation planning. The Authority has also been meeting with industry to facilitate the transition, which includes developing a template FSMS (through ISC with industry input) for poultry growers.

It is estimated by FSANZ that chicken meat may account for ~30% of *Campylobacter* cases that occur each year in Australia (Stafford et al, 2007) or 83,100 cases per year. Similar data is not available for *Salmonella* but a proportion of the estimated

81,000 foodborne cases of salmonellosis per year could be reasonably expected to come from contaminated chicken. FSANZ used the data of Dalton et al (2004) where it was found poultry meat has been associated with 13% of identified salmonellosis outbreaks and 8% of the total cases from these outbreaks. Based on this data, this would amount to 6480 cases per year of salmonellosis due to contaminated poultry meat.

Using figures regarding the likely severity of poultry-meat related illness and the cost of medical treatment, FSANZ estimated that in Australia:

- the average medical costs arising out of a cases of poultry-related illness (\$3276 per case or \$7.8 million per year)
- the cost to the community of deaths causes by poultry-meat related illness (\$3.35 million per year)
- productivity loss due to people affected by poultry-meat related illness (\$23.6 million per year)

Overall the cost to consumers in Australia from foodborne illness associated with poultry contaminated with *Campylobacter* and *Salmonella* was estimated to be in the range of \$14-74 million per year, with a median value of \$44 million per year.

Data provided by the Australian Chicken Meat Federation (ACMF) indicate compliance with a Standard for Poultry Meat will result in the industry incurring an initial cost of \$11 m in the first year and \$4 m each year thereafter. Allowing for the fact that the benefits of initial infrastructure investments will be realised over a number of years, to achieve a positive net benefit over five years would require at least a 14.5% reduction in illness or 13% if considered over 10 years.

International experience, while not directly comparable, would suggest that reductions in excess of these percentages might be achievable. The majority of countries that have improved practices and procedures on-farm and at slaughtering facilities have successfully reduced the amount of *Salmonella* and *Campylobacter* in raw chicken.

For example, in New Zealand a *Campylobacter* reduction strategy was implemented in 2006 and specific poultry processing targets set in 2008 (NZFSA, Dec 2008). Poultry processors must ensure that at the end of processing, their poultry carcasses meet the specified microbiological criteria (NZFSA, Jan 2008). This strategy has seen cases of *Campylobacter* infection caused by food being reduced by 50% (NZFSA, 2009).

Verification Program

KFSIs for the Poultry chain

When considering potential KFSIs for the poultry chain, a number of factors are important, including the cost of monitoring and resources required for both business and the Authority. After assessing numerous options, the Authority has determined that an appropriate KFSI for the poultry chain is the testing of the finished product for *Salmonella*, *Campylobacter* and *E. coli* levels. This is particularly useful as some processors may already be monitoring the levels of these bacteria in their products. An “out of spec” result at the end of the processing line indicates that there is a problem at some point along the chain and this can be used to instigate a series of actions. The Authority expects that this could begin with the processor assessing their operation for known causes of microbiological contamination, and documenting any identified causes and appropriate corrective action.

If the processor’s assessment indicates issues with the primary production part of the supply chain, it would be appropriate for the processor to notify the relevant growers and request that they undertake appropriate investigations or action. This approach is most effective in operations that are vertically integrated or where there is an ongoing relationship between processor and grower. Again corrective action needs to be documented as part of the processor program and would be assessed by the Authority at processor audits.

It is anticipated that by utilising this type of integrated arrangement the need for “on farm” intervention by Authority can be minimised, unless issues reoccur or there are other indications that the process is not being adequately controlled. The Authority intends to conduct a verification program on farm whereby approximately 30% of farms would be inspected each year to verify efficacy of the farm internal audit program and compliance with the FSMS. The verification program is funded by licence fees and there are no additional compliance costs on producers.

To test the suitability of the chosen KFSIs and monitoring program, further discussions and a trial with some processors will be undertaken. Licensing and verification of farms will not commence until early 2013.

Key Food Safety Indicator and interventions for the poultry chain

Grower

- Maintain FSMS
- Undertake internal audit
- Authority conducts annual verification program 30%

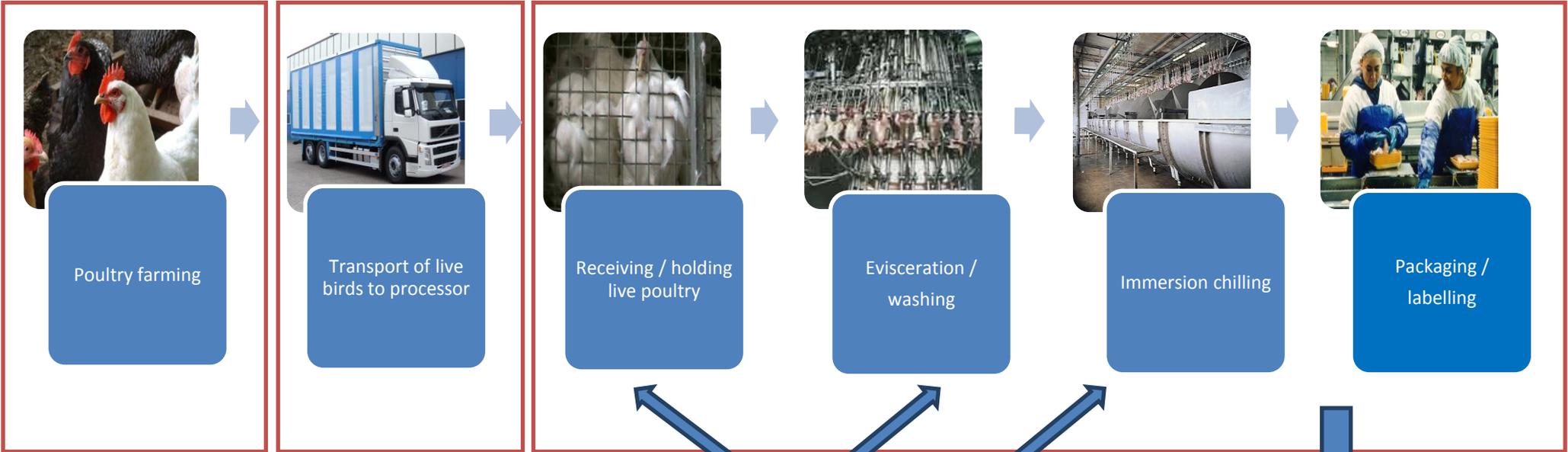
Processor

- Maintains Food Safety Management System
- Collects KFSI performance data
- Compliance assessed at routine audits by Authority

Key Food Safety Indicator:

End product test results for:

- *Campylobacter*:
- *Salmonella*:
- *E. coli*



Contact relevant farms if implicated

Authority will monitor trend analysis and adequacy of corrective action by processor.

Check processing verification points e.g.

- Live bird receiving and holding
- Evisceration
- Washing
- Chilling

Above-spec KFSI levels

Monitor product ex-spin chiller for levels of *Campylobacter*, *Salmonella* and *E. coli*