



FOOD  
STANDARDS  
AGENCY

## A review of commercial egg washing, with particular emphasis on the control of *Salmonella*

### PROJECT STRUCTURE

This review project is being led by ADAS, with, as partners, Scottish Agricultural College, Silsoe Research Institute, MAFF Egg Marketing Inspectorate and MS Technologies Ltd. The project is funded by the Food Standards Agency (Project No: BO 3017) and supports the Agency's overall objective of ensuring safe, hygienic food for UK consumers.



*Eggs can make an important contribution to a healthy diet*

### OBJECTIVES OF THE PROJECT

Egg washing is a practice which can produce table eggs ("Grade A" eggs) that are visually more attractive to the consumer, but whose microbiological benefits appear currently to be mixed. The practice is not currently approved for general use within the EU, on Grade A eggs.

*The objectives of the project are*

- To assess the current state of knowledge about the effectiveness of egg washing, by reviewing the published scientific, technical and government literature.
- To evaluate, from a technical and economic viewpoint, the practices used in other countries where egg washing is allowed, particularly in the USA and Japan, and to assess the applicability of these practices to the UK industry.
- To assess the technical and economic implications for the UK egg industry of allowing egg washing in the UK.

- To establish experimental procedures at SAC Auchincruive and at ADAS Wolverhampton in which eggs will be contaminated with *salmonella* spp. in a manner which will mimic the likely mode of infection in the field. Laboratory assays will then be conducted to quantify the extent of *salmonella* contamination within the egg, and egg shells will be subject to microscopic examination to assess any structural damage caused by washing, which may encourage the ingress of bacteria.
- To communicate the findings of this study to the end users of egg washing technology and to the retailers of washed eggs through publications in the scientific and popular press and through a Technical Workshop.



*Egg washing machine in operation in the USA*

### PROGRESS TO DATE

The project began in October 2000. A literature review has been completed, and technical visits have been made to the USA and to Japan. The experiments on possible transfer of *Salmonella* through the shell of just-hatched eggs have been planned.

**For further information, please contact the project leader:**

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