

Egg washing considerations

One of the most common egg farming questions which is asked is concerning egg washing - To wash or not to wash, this is the question.

Broadly the world is divided into four zones:

1. Europe where egg washing is not permitted
2. America where egg washing is mandatory
3. Australia where we can't make up our minds, and
4. The rest of the world who don't care.

The above analysis is oversimplified however Bellsouth is in the washing group.

In a pure world, there would never be any fecal marks on an egg, the nests would always be spotlessly clean, no pullets would ever leave blood stains on the eggs, Salmonella would be nonexistent pigs would fly, and we would never need to clean an egg.

In the real world, eggs need some degree of washing, or as we would prefer to call it, sanitising. That is a minor stain, manure mark, dust, and surface bacteria are removed.

There are two different sorts of washing:

1. Recirculated washing machines use the same batch of water and pump it over the eggs. The problems in this type of machine are many:

- i. The water quickly becomes dirtied with organic material from the eggs. This uses up the chlorine, leaving the water as a contaminant rather than a cleaner.
- ii. The used up chlorine makes the water harder, making the chlorine that's left in the reservoir less effective.
- iii. The calcium from the egg shells washes into the water reservoir also altering the water chemistry and so reducing the availability of the chlorine.
- iv. The constantly changing chlorine levels need to be monitored to ensure there is still active" or "free "chlorine available to act on any fresh organic matter.
- v. The chlorine often now gets very frothy so anti froth is added.
- vi. With all this going on the pump keeps on pumping the water from the reservoir onto the eggs, and making them dirty again. The eggs then must be rinsed with water to remove any trace of the chemical brew that is in the reservoir. Then another lot of fresh water is sprayed over the eggs with a high level of chlorine (minimum 100 PPM) to ensure that any bacteria in the wash water has been negated. Theoretically the egg is sterile from the disinfectant which is very carefully managed. (I am looking out the window for the flying pigs again). Some exceptions are required by different jurisdictions, one state requires another rise to remove any disinfectant residual.

So there is a big list of why not to wash.

The other sort of machine is the [one use water washer](#). It is usually used by smaller operations. These machines pump a low flow of fresh water onto the eggs, after mixing with a controlled amount of [chlorine](#) or [Quat](#). This is unused potable water. The water spray bar is a minimum of 500mm long. The fresh water (called the wash

water) flows over the eggs, at a lower level of chlorine. The eggs travel along and the spray bar then provides more fresh water with chlorine which is the rinse. All the water is removed off the eggs with fine nylon brushes and air flow so the eggs emerge from the machine almost dry. The water is now drained away as waste.

I was pleased heart that at a recent trade conference sponsored by the WPSA, discussion was had on this topic, and that Margaret Sexton, in response to a question, agreed that there was no further rinsing required after the use of a non-recycled water rinse in this style machine.

As a side note, there is nothing that will convert a black egg, that is an egg which has been covered in manure and is on the floor, can be recovered and turned into an A grade market egg.. So please don't try. Likewise with cracked eggs.

Lastly, in the editorial of the Poultry World Digest a couple of years ago, the editor was discussing the issue of Salmonella bacteria on farms. In Europe, the control of problem eggs is by certifying that the farms are salmonella free. His statement was the only farms which test salmonella free arte those where they did not test enough.

There are also some new techniques for sanitising eggs, UV sterilisers are among the newest. But UV only works when the UV rays contact the DNA of the bacteria. They don't address the cleanliness of the eggs, and the UV cannot penetrate a lump of fecal matter to get to the bacteria. Great for physically clean eggs.

So best to use management systems which ensure the eggs are clean to start with, good nests, where no birds can sleep, with good cyclical cleaning programs to ensure they stay clean, cleaning programs for egg conveyors, clean hands of the staff, clean graders.

In summary, in the real world, with all the best management, I think that a correctly installed, properly cleaned and maintained Single water use washer ticks all the boxes and is the best way of sanitising eggs.