

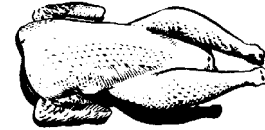


The University of Georgia

Cooperative Extension Service

College of Agricultural and Environmental Sciences / Athens, Georgia 30602-4356

SEPTEMBER 2004



PROCESSING TIP . . .

CAN YOU BELIEVE THEY DON'T HAVE *SALMONELLA* IN SOME PARTS OF THE WORLD?

Recently, members of the Department of Poultry Science at UGA had the opportunity to travel to China to work with the Chinese poultry industry on poultry management and processing issues. The trip was very informative because we discovered that some countries are able to state that their poultry products are “*Salmonella* Free”. This designation is extremely important when exporting products to other countries such as Japan or those in Europe. I was absolutely amazed to see the look on the faces of technical personnel when I asked them “what prevalence of *Salmonella* do you have on your poultry products and what do your *E. coli* counts average”. After translation, they looked at me in a questioning way as if to ask “what are you talking about”. Then, they replied via the translator “we have never seen any *Salmonella* or *E. coli* on our poultry products”. I responded, after working in poultry research and as a poultry microbiologist in the U.S. industry for 17 years, I have never come across a chicken on which I could not detect any *E. coli*. With our procedures, we regularly detect a low prevalence of *Salmonella* on our poultry carcasses. This is public knowledge as the USDA has published the *Salmonella* baseline studies that indicate that the U.S. poultry supply originally had a *Salmonella* prevalence of about 20% (1996) and that it has been reduced to 9-11% after the inception of HACCP.

After investigating further, I discovered that the way that they conduct the tests for *Salmonella* is the reason for the inability to detect it on finished carcasses. To conduct a *Salmonella* or *E. coli* test, they sterilize the skin on the breast, excise the skin using a sterile scalpel, remove a small portion of the breast meat (which should be sterile, unless the bird has an infection) and test it for *Salmonella* and *E. coli*. Using this methodology, it is virtually impossible to ever detect these bacteria on carcasses. I expressed to the industry representatives that they are wasting money, labor, and time conducting these tests. They are in no way indicative of the *Salmonella* prevalence or *E. coli* count on carcasses. It was expressed to me

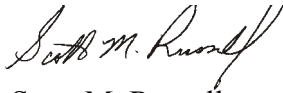
PUTTING KNOWLEDGE TO WORK

The University of Georgia and Ft. Valley State College, the U.S. Department of Agriculture and counties of the state cooperating.
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that these methods are mandated by the government and that they had to follow them. Our USDA requires that we conduct whole carcass rinses, which have been shown in the research literature over the years to be the best way to detect *Salmonella* and to conduct counts for *E. coli*.

It is my understanding that Russia also requires that we test carcasses by sterilizing the skin, removing the skin using a sterile scalpel, drilling into the breast using a core sampler and testing the breast meat. Again, this method is useless for detecting *Salmonella* and useless for protecting people from illness.

Companies in the U.S. that are considering importation of poultry from other countries should carefully evaluate the methods that are used to detect *Salmonella* and to conduct *E. coli* counts, to ensure that these products meet our USDA requirements. Moreover, our industry should not feel it is at a disadvantage when other countries report that their product is “*Salmonella* Free”. We produce excellent, safe poultry products in the U.S. and we should be proud that we use appropriate techniques to detect pathogens, so that we can take appropriate action when these bacterial levels are excessive.



Scott M. Russell
Extension Poultry Scientist

Extension County Coordinator/Agent

“Your local County Extension Agent is a source of more information on this subject.”