



Water: sterile deionized water; Probiotics Mist (PBM):



Probiotics on
SM Agar



Probiotics on
MRS agar



Salmonella on
SM agar overlaid
with XLD agar

SM Agar: Standard Method Agar; MRS: De Man, Rogosa and Sharpe agar, and XLD: Xylose Lysine Deoxycholate

Summary: After 24 hour holding at room temperature (23C), Salmonella counts in PBM were reduced by 84.2% compared to Salmonella counts in deionized water. The results showed the potential of environmental probiotics in controlling Salmonella.

Therefore, it is suggested to do storage study on fresh produce (i.e. strawberry and tomatoes) after inoculating them with Salmonella and subsequently spray them with environmental probiotics blend of probiotics. The purpose of this approach is to see how much environmental probiotics control the growth of Salmonella during storage of the fresh produce at room and refrigerator temperatures.

Note-1:

A reduction in Salmonella counts was compared with sterile deionized water control. After 24 h treatment, Salmonella count subjected to deionized water was 4.08 in log (convert this to plain number, 12,022) colony forming units (CFU) while Salmonella counts subjected to ReNUBiotics Mist was 3.28 in log (1,905) CFU. Therefore, a reduction in Salmonella counts compared to deionized water is calculated as follows: the difference of Salmonella counts between deionized water and environmental probiotics mist/Salmonella counts in deionized water; $(12,022 - 1,905) / 12,022 * 100 = 84.2\%$.

Note-2:

Reference the information request as to washing the subject bacteria, as follows: Unless there is a special reason of using bacteria in organic growth media, evaluation of any sanitizer efficacy in controlling or killing bacteria are mostly done using bacteria that are washed in appropriate buffer to remove any organic materials produced by bacteria during their growth in growth media.

Therefore, we washed the Salmonella used in the testing in 0.85% saline solution for this test. For your information, I also tested Salmonella that was not washed in buffer solution, the result was about 71% reduction. Since it is not critical at this point and doesn't have to be specific, the word "Washed" can be removed. In addition, I included "in" in the title. The revised report is attached.