TITTLE: EFFICACY IN THE USE OF TRIPLATES AND CHROMOGENIC MEDIA FOR ISOLATION AND PRESUMPTIVE IDENTIFICATION OF *Salmonella* spp.

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Salmonella spp. is the genus of greatest relevance in the Enterobacteriaceae family, with records of infectious doses of less than 10^3 cells related to outbreaks of foodborne diseases. Because of this, in accordance of foods regulations, *Salmonella* spp. research is of great importance. According to ISO 6579:2002, the research should be performed using Xylose Lysine Deoxycholate Agar (XLD) medium, which is a selective and differential medium, and the necessity of the second medium to complementary it. One option is Brilliant Green Agar, which is a highly selective medium for the isolation of *Salmonella* spp. Another option is the chromogenic media that have substances that make them selective and differential. The present study was developed to evaluate the efficiency in the use of triplates containing media like XLD / Brilliant Green Agar / Chromogenic Salmonella Agar (Laborclin®) for isolation and presumptive identification of *Salmonella* spp. The morphological characteristics of the colonies of *Salmonella typhimurium*, *Pseudomonas aeruginosa* and *Proteus mirabilis* was compared in these media. It was used three samples of contaminated ground beef with aforementioned microorganisms, each one. For contamination of the fourth sample a suspension with the three species was used. The procedure included pre-enrichment steps in 1% buffered peptone water, enrichment in Muller Kauffman Broth containing iodine and 400µg of novobiocin, and Rappaport Soya Broth. After them it was plated in the surface of the media, oxidase test and biochemical identification using Bactray I® (Laborclin). The results showed the effectiveness of triplate containing XLD / Brilliant Green Agar / Chromogenic Salmonella Agar (Laborclin) for the recovery and isolation of microorganisms, even though they have the smallest dimensions in their quadrants. The results suggest that the application of triplate was efficient, and it was observed a

better ability to differentiate *Salmonella* spp. for another species using Chromogenic Salmonella Agar.
Key words: *Salmonella* spp., food quality control, triplate, ISO 6579:2002.