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## University of Vermont and State Agricultural College

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## A STATISTICAL COMPARISON OF TWO METHODS FOR DETERMINING THE BACTERIAL COUNT OF MILK

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The Standard method as stated in "Standard Methods of Milk Analysis" and a modified method (Bowers-Hucker medium incubated at 32° C.) were compared. Average colony counts were obtained by both methods of a variable number of replicate plates (20-100) from 18 representative samples, each plate being counted three to six times. This procedure was followed because it was felt that, for this particular study, a large number of counts (4,709) by several technicians from a relatively small number of samples offered a more dependable basis for comparison than would single or duplicate counts from a larger number.

The modified method produced a greater number of more luxuriant colonies, and comparisons evidenced a marked tendency toward increased counting accuracy.

The augmented visibility of the colonies, probably an important factor in counting accuracy, was no doubt due in the main to the inherent opaqueness of the Bowers-Hucker medium.

For these reasons it was concluded that the modified method is significantly better than the Standard for the purposes for which it is intended.