Lactate! Lactate! Lactate!

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Dairy farmers get paid on components such as protein and fat in the milk. Therefore, knowing what stage in a cow's lactation they will produce milk with the highest percent of components can benefit dairy farmers in profits and marketing terms. If the amount of protein in cows milk is measured in early lactation, then it will measure out the most protein compared to the other stages of lactation, because that is when the cow is in the peak of milk production. Milk samples from three cows in each of four different lactation stages were provided by a local dairy farm, a total of 36 samples. The samples were made with an Albumin kit with buffer solutions and Bovine Serum Albumin was used to make solutions with the milk samples. The protein levels of the samples were tested using a spectrophotometer. The results of the experiment were fresh lactation with the highest amount of protein, then early lactation, mid lactation, and late lactation with the least amount of protein. The hypothesis was not supported, as the cows in the fresh lactation period produced milk with a higher protein content rather than the cows in the other stages of lactation. In which, the rankings from highest to lowest went fresh, mid, early, late.

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