Sample Rough Draft of Essay

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Yogurt Making: Is Less Really More?

Common belief shows the beginnings of yogurt dating back all the way to 6000BC in Asia. It is believed that herdsmen (cattle or goat herders) would milk their animals and store the milk in dried animal stomachs. The enzymes in these containers as well as the temperature of the area caused the milk to curdle (pH change in the fluid and set and essentially create yogurt (CITE)). This food became a staple for many peoples of the day due its ability to keep well in many temperatures and the health benefits (CITE). Commercial yogurt didn't begin production until the 1940s and has been evolving ever since with companies adding mix-ins and additives to improve mass production and trying to commercialize various types of yogurt (CITE). One may question if the additives affect the consistency of the yogurt produced.

The process of making yogurt is all based around one scientific process: bacterial fermentation of milk. The process begins as milk is heated to an ideal temperature (85-90 C (185-195 F)) and then cooled to the proper temperature (50 to 55 C (122-130 F)). A small of amount of bacteria is then added to the milk (usually the form of pre-made yogurt). The bacterium converts the lactose (milk sugars) into lactic acid (CITE). The lactic acid then "[changes the pH] and the milk proteins can suddenly attach one another and form clumps." The milk is then incubated in a water bath for at least three hours (CITE). "The milk is incubated to maximize the activity of the bacteria" (CITE). This curdling and clumping of the milk proteins is what allows the milk to thicken and set into yogurt. Without the bacteria changing the lactose into an acid, the curdling of milk would not occur, and yogurt would never be formed.

While the process of making yogurt is fairly simple, the addition of various ingredients has become the norm in mass production and each additive has the potential to affect the process of fermentation due to