

The Dynamics of Microorganisms in Dried Yogurt Storages at Different Temperatures

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Abstract : Yoghurt is a fermented milk product. The process of making yogurt involves fermenting milk with live and active bacterial cultures by adding bacteria directly to the dairy product. It is usually made with a culture of *Lactobacillus* sp. (*L. acidophilus* or *L. bulgaricus*) and *Streptococcus thermophilus*. Many people like to eat it plain or flavored and it's also use as ingredient in many dishes. Yogurt is rich in nutrients including the microorganism which have important role in balancing the digestion and absorption of the boy. Consumers will benefit from lactic acid bacteria more or less depending on the amount of bacteria that lives in yogurt while eating. When purchasing yogurt, consumers should always check the label for live cultures. Yoghurt must keep in refrigerator at 4°C for up to ten days. After this amount of time, the cultures often become weak. This research studied freezing dry yogurt storage by monitoring on the survival of microorganisms when stored at different temperatures. At 300°C, representative room temperature of country in equator zone, number of lactic acid bacteria reduced 4 log cycles in 10 week. At 400°C, representative temperature in summer of country in equator zone, number of lactic acid bacteria also dropped 4 log cycle in 10 week, similar as storage at 300°C. But drying yogurt storage at 400°C couldn't reformed to be good character yogurt as good as storage at 400°C only 4 week storage too. After 1 month, it couldn't bring back the yogurt form. So if it is inevitable to keep yogurt powder at a temperature of 40°C, yoghurt is maintained only up to 4 weeks.

Keywords : dynamic, dry yoghurt, storage, temperature

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