

**ISOLATION AND CHARACTERIZATION OF  
SPORE-FORMING BACTERIA FROM DRIED FOOD**

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## ABSTRACT

### ISOLATION AND CHARACTERIZATION OF SPORE-FORMING BACTERIA IN DRIED FOODS

There was various number of food in the market nowadays. In order to extending its lifespan, the food will undergo several types of preservation method such as salting, drying, pasteurizing, and vacuuming and many more. During all these preservation types, there might be bacteria that still alive and spores of the bacteria that still exist in the food content which can bring harmful to the consumer. Thus, experiments to test for the existence of spore forming bacteria in dried food were conducted. The sample used was flour and chili powder. 1 gram of the sample was mixed with 9mL distilled water. The samples of food then undergo harsh and unfavorable condition which is they were immersed in 80°C for 30 minutes in water bath to kill the vegetative cell and left the spores. The sample was undergo three serial dilutions and was plated on nutrient agar (NA) in both aerobic and anaerobic condition. As the results, there were six different colonies found growth on the agar. Then, series of biochemical test was done to the all six samples. Biochemical test such as TSI, Indole, MRVP and Catalase test was done to the growing bacteria on the NA plate in order to characterize the spore forming bacteria that exists in the sample. In a nutshell, after undergo series of biochemical tests, a colony from the samples was shown characteristics as *Bacillus sp.* and another one was shown characteristics as *Clostridium sp.* and the other four colonies were unclassified species.