## THERMOBACTERIOLOGY OF BACILLUS THURINGIENSIS AFTER CONVENTIONAL DRYING

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Bacillus thuringiensis (Bt) can be produced both by submerged or solid state fermentation, but the recovery of the bioinsecticide presents some problems, mainly during the drying process. This paper presents the thermobacteriological behavior of Bt spores after conventional drying. The bioinsecticide was obtained by submerged fermentation and the broth was centrifuged using a laboratory sharples centrifuge. Drying process used hot air at 50°C, 70°C and 90°C at a velocity of 4.02 m/s. The test material was prepared using 3% active principle with 50% humidity. It was mixed with clay and humidified with a 5% lactose solution. Acrilic boxes (5 cm x 10 cm x 2 cm) containing the material were submitted to the drying process during 22.5 h. During the experimental work samples were taken at fixed intervals. They were diluted conveniently and plated in order to determine the D value (Decimal Reduction Time) relative to the drying temperature studied, and also to verify the heat penetration profile. The results showed that at 50°C and 70°C there were no viability reduction of the Bt spores after 22.5 h of drying, and the D values were 37.77h and 28.56h respectively. At 90°C there were a Bt spore viability reduction and the D value was 5.86h.