Temperature impact on sporogenesis in several strains bacillus sp

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During sporogenesis, in some aerobe and anaerobe bacteria, biologically active substances are released in the environment, such as enzymes, antibiotics, or toxins. This phenomenon is extremely important to the microbial biotechnologies. This paper shows the influence of various temperatures (18, 30, 37 and 42°C) on the sporogenesis in three species of the Bacillus genus (B. subtilis, B. cereus and B. megaterium), the controls being carried out at 5, 7, 9, 12, 14, 16, 22 and 24 hours. The research results show that sporulation starts later at high temperatures (after 14 hours at 370 C and after 16 hours at 42°C), while at a temperature much lower than the optimal one, sporogenesis is highly delayed. These research studies confirm the observations found in the literature according to which sporogenesis takes place within the eugenetic limit range of temperature, being species- and not strain-characteristic.