



**METHODICAL BASES DEVELOPMENT OF BIOWEIGHT ACCUMULATION AND FORMATION OF SPORES
BACILLUS SPHAERICUS 1795, WITH ENTOMOPATHOGENIC PROPERTIES**

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The development of germ preparation reception technology with entomopathogenic activity, with application of aerobic *Bacillus* is based on knowledge of physiological features of strains, which are included in a preparation, and management with processes of their cultivation.

The purpose of our work was study bioweight accumulation dynamics and *Bacillus sphaericus* 1795 spores development while cultivation on different environments. Work is carried out with strain *Bacillus sphaericus* 1795, having entomopathogenic action against larva of blood sucking mosquitoes *Culex pipiens molestus*, *Aedes flavescens*, *Aedes dorsalis* etc. *Bacillus sphaericus* 1795 - Gram positive stick, forms spores. The spores and cells are well painted in a microscopic preparation. Strain were growing on oblique MPA. The cultivation was carried out on high-grade (MPB 1:1) and synthetic mediums.

The estimation of *Bacillus sphaericus* 1795 growth kinetic parameters on medium distinguished on mineral structure and concentration of used components, has shown the following. The accumulation of bioweight varies depending on medium structure from 0,16 up to 1,0 units of optical density. The amount of *Bacillus sphaericus* 1795 bioweight accumulation on high-grade medium (MPB) reach $3,9 \times 10^{10}$ colony forming units / ML, that considerably exceeds the given parameter on synthetic mediums. Thus, in our experiments conditions the accumulation of *Bacillus sphaericus* 1795 bioweight and spores was defined by medium structure. Irrespective of medium, the bioweight containing cells and spores had strong toxic action to larva *Culex pipiens molestus*; larva destruction of a blood sucking mosquito was registered during 12-24 hours.

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**МЕТОДОЛОГИЧЕСКИЕ ОСНОВЫ РАЗРАБОТКИ МЕТОДОВ НАКОПЛЕНИЯ БИОМАССЫ И СПОРООБРАЗОВАНИЕ
ШТАММОВ *BACILLUS SPHAERICUS* 1795 ОБЛАДАЮЩИХ ЭНТОМОПАТОГЕННЫМИ СВОЙСТВАМИ**

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Суттю роботи було розробити ефективні методи отримання великої кількості біомаси і спор мікроорганізмів які б мали ентомопатогенні властивості. В роботі використовувався штам *Bacillus sphaericus* 1795, культивування проводили з використанням різних живильних середовищ, з метою встановити найоптимальніші умови, з постійним встановленням ентомопатогенної активності.