



**WORKING OUT THE TECHNOLOGY ELEMENTS OF PRODUCTION OF PREPARATION AGAINST PEST
INSECTS BASED ON BACTERIA OF GENUS *BACILLUS***

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Bactoculicide is a highly effective preparation against blood-sucker gnats and midges larvae. Bactoculicide doesn't pollute environment and water resources. It is absolutely safe for humans, animals, useful insects and hydrobionts. Bactoculicide is based on bacteria of genus *Bacillus*. Strain *Bacillus thuringiensis* var. *israelensis* 7-1\23 is cultivated on selected nutritional media under industrial conditions to obtain the biopreparation. Working out the limited tonnage production of bactoculicide will give the opportunity to produce this biopreparation in present time in Ukraine.

The investigations were carried out in Biotechnology laboratory of microbiology and virology chair of Odessa National University. The aim of investigation was to select nutritional media to obtain inoculation material in three liters volume inoculation fermenter and to produce selling parties of bactoculicide in 40-liters volume industrial fermenter.

Culture growth rate was studied under stable temperature (28-30°C). It was shown that a meat-peptone broth with the concentrations of 15,0 and 7,5 g/l could be used as a nutritional medium to obtain inoculation material. Titer of inoculation material was 10^7 CFU/ml.



For bactoculicide production in 40-liters volume industrial fermenters a modified Zurabova medium for lepidocide production could be used. After 48 hours of cultivation the titer of vivid cells was 10^8 CFU/ml, titer of spores was 10^6 CFU/ml. As a result of investigation the nutritional media for bactoculicide production technology were selected.

РОЗРОБКА ЕЛЕМЕНТІВ ТЕХНОЛОГІЇ ВИРОБНИЦТВА ПРЕПАРАТУ НА ОСНОВІ БАКТЕРІЙ РОДУ *BACILLUS* ДЛЯ БОРОТЬБИ З КОМАХАМИ-ШКІДНИКАМИ

Котенко КО., Багаєва О.С.

Підібрано живильні середовища для отримання посівного матеріалу бактокуліциду і виробництва товарних партій препарату у промисловому ферментері. Для отримання посівного матеріалу - м'ясо-пептонний бульйон у концентраціях 15 г/л і 7,5 г/л, а для виготовлення бактокуліциду в промисловому ферментері - модифіковане середовище Зурабової.