ANNOTATION

of report on a pre-diploma practice of a 4th year student, of group BT-21 direction of training 7.05140101 - Industrial Biotechnology Kateryna Mykolayivna Karpeko on topic: «The technology of biomass substance *Trametes versicolor*. The department of nutrient medium preparation »

The report on a pre-diploma practice contained 45 pages of printed text. The report consists of an introduction, three chapters, conclusions, list of references, two applications and 7 figures and 8 tables.

The report of the pre-diploma practice describes the production of biomass substance basidiomycetes *Trametes versicolor.*

In the introduction the urgency of the chosen research topic, purpose of the pre-diploma practice and its problems are described.

The first chapter of the report contains information on biotechnological functional nutrition and medicines based on submerged mycelium of fungi of the genus *Trametes*.

The second chapter of the report deals with technology process and hardware software of biomass substance *T. versicolor* industrial production.

The third chapter of the report contains data from experimental determination of proteins and reducing sugars in the cell culture fluid of *T. versicolor* and *T. zonatus* that were obtained by submerged cultivation on lactoserum and complex medium.

The appendixes contain process flowsheet and technical design for essential equipment for biomass substance *T. versicolor* production.

As a result of the pre-diploma practice the following tasks have been resolved: the possibility of using *Trametes* biomass as functional nutrition was proved; the process flowsheet and technical design for essential equipment for biomass substance *T. versicolor* production was suggested; the choice of nutrient medium, strain and way of inoculum obtaining were proved.

According to the results of the pre-diploma practice, the following conclusions were made: the submerged cultivation of *T. versicolor* could be the basis for fungi biomass obtaining as functional nutrition; a complex medium provides more proteins and reducing sugars storage in the cell culture fluid; *T. versicolor* 353, which inoculum was received by rinse from petrie dish, is characterized by a higher accumulation of proteins and reducing sugars in the cell culture fluid.