

ANNOTATION
of report on a pre-diploma practice of a 4th year student, of group BT-21
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«The technology of biomass *Trametes versicolor*. Biosynthesis department»

Report on a pre-diploma practice contains in 50 pages of printed text. The report consists of introduction, three chapters, conclusions, a list of references and contains 4 figures and 10 tables.

In the report on the pre-diploma practice the description of basidiomycetes *Trametes versicolor* biomass production is given.

The importance of the research and the objective of the pre-diploma practice in the introduction are presented.

The first part of the report contains literature review, which gives the characteristic of the *T. versicolor*, and also it provides information on practical significance and application biomass of basidiomycetes *T. versicolor*.

The second part of the report provides a description of the technological process of the industrial production of *T. versicolor* biomass, and gives the basics of safety and environmental protection as well as.

The third part of the report contains experimental data on the determination of protein and reducing sugars in the culture liquid of basidiomycetes *T. versicolor* and *T. zonatus*, obtained as a result of submerged cultivation on whey and complex medium.

The Appendix contains the hardware and technological scheme of production of biomass of *T. versicolor*.

The following tasks are solved in the course of the pre-diploma practice: the topicality of developing technologies for the production of functional food additives based on submerged mycelium of the medicinal mushroom genus *Trametes* is analyzed, propose of the technological and hardware scheme of production of biomass of *T. versicolor* is presented.

According to the results of the pre-diploma practice the following conclusions can be made: the development of technology for production of functional food additives on the basis of *T. versicolor* biomass is of considerable interest, because the biomass of the fungus has a broad spectrum of therapeutic and prophylactic properties. The promising strain for producing of filamentous biomass for the production of functional food additives is a strain of *T. versicolor* 353, cultivated on a complex medium, which has the highest content of reducing sugars (0,0534 g/ml) and protein content (0,337 g/ml) (on the base of experimental studies).