

Dietary Supplements with Curative and Prophylactic Properties Made from the Edible and Medicinal Mushroom *Lentinus edodes* (Berk.) Sing. Biomass

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Lentinus edodes (Berk.) Sing. is notable for its ability to exert a strong physiological effect on humans in comparison with other species of mushrooms.

The use of this mushroom in food raises one's life expectancy owing to its anticarcinogenic, antiviral, and antiinflammatory functions. It precludes of cohesion of thrombocytes with each other, preventing formation of thrombi. Biologically active substances (BASs), educed from the mushrooms, evince metabolic, hormonal, immunological, and hematological activities. It stimulates T-lymphocytes which are depressed in cases of cancer and AIDS. In spite of these facts, researches on mushrooms as BAS producers used in modern systems of medicinal treatment have appeared in world practice only comparatively recently.

RM constitutes one of the richest sources of raw materials and it provides good conditions for edible mushroom cultivation.

As a result of certain researches, the ability to produce a mushroom biomass by cultivation on liquid nutritive media was demonstrated. This method permits production of mushroom biomass on cheap and widely accessible raw material

within a relatively short period. The conditions for receiving mushroom biomass in the form of small balls, as the most technological mode, were perfected.

Polysaccharide fractions for detailed researches of mushroom biological activity were released by means of fractional precipitation from water extracts of mushroom biomass. Determination of mushroom biomass preparations for immunomodeling activity was carried out. Preparations serving as test objects for medical applications were used in the control tests regime for studying the function of immunomodulators.

Physiochemical and technological properties of powder of the mushroom *Lentinus edodes* were investigated.

A technology for obtaining rational curative forms, considering the degree of crumbling, artificial mass, flaking, compression, humidity Ekerspecters, reaction of authenticity, the range of additive substances, and standardization of pills was worked out. The establishment of laboratory regulations for pills with curative and prophylactic properties, produced on the basis of the biomass of the *L. edodes*, was completed.