

Title: INFLUENCE OF STREPTOMYCETE BIOMASS ON THE PHYSIOLOGICAL INDICATORS OF HOMEOTHERMIC ANIMALS

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Category: G

Description: The invention relates to agriculture and experimental physiology, to obtaining biomass of streptomycetes during cultivation on nutrient media containing 4-aminobenzoic acid and using it as an additive in a standard diet to increase the body weight of homeothermic animals (laboratory rats Wistar).

- Purpose

- The invention relates to agriculture and experimental physiology, to obtaining biomass of streptomycetes during cultivation on nutrient media containing 4-aminobenzoic acid and using it as an additive in a standard diet to increase the body weight of homeothermic animals (laboratory rats Wistar).

- Solution

- The essence of the invention consists in the fact that an optimized nutrient medium is proposed for the submerged cultivation of the strain *Streptomyces massaporeus* CNMN-Ac-06, which contains 4-aminobenzoic acid 1.37 g/l.



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- *In the following, a procedure for supplementing the diet of white rats Wistar with the biomass food additive of the strain *Streptomyces massaporeus* CNMN-Ac-06, cultivated on the same nutrient medium containing 4-aminobenzoic acid - 1.37 g/l, in a quantity of 250 mg/kg body weight per day for 5-10 weeks.*

- Advantages

- *The result of the invention is that the proposed medium increases the synthesis of lipids by 32.28%, phospholipids by 111.5% and sterols by 366.66% in comparison with the prototype medium. The amount of absolutely dry biomass in comparison with the prototype medium is increased by 212.76%, from 5th to 10th week in comparison with the prototype.*
- *An increase in body weight was also observed in experiments in the after stress condition (stressed with extremely high temperature 34 ... 36°C, without ventilation), weight gain was 127.56-466.67% in comparison with the control (standard diet + biomass of the strain).*
- *An increase in the weight gain of experimental animals occurs both under normal physiological conditions and under stress, especially in the after stress conditions, which indicates an increase in the resistance of the body of experimental animals to the effects of heat stress under the influence of the food additives used to the standard diet, as well as a more intensive restoration of physiological capabilities of the body after exposure to adverse environmental conditions.*

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State of development: scientific paper, research project, PhD thesis

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