PROCESSING OF ANIMAL BY-PRODUCTS FOR BIOTECHNOLOGICAL PRODUCTION OF VALUE-ADDED COMMODITIES

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Various residues from livestock production that cannot be utilized for direct human consumption can represent an additional environmental burden in the form of problematic waste requiring sanitation before disposal. In the better case, after hygienisation, they are processed in rendering plants into substances with low nutritional value preferring mostly a minimum price as a major criterion. Such preparations are returned to the animal production system in the form of feed ingredients. Here, we would like to present selected options for processing of animal waste (namely chicken feather and/or residues after mechanical separation of poultry meat) to prepare complex components of nutrition media that are rich in nitrogen and at the same time contain a minimum of potentially inhibitory substances hindering cell growth or production. These can serve to the nutrition of biotechnologically relevant microorganisms for fermentation production of ethanol, butanol, acetone or lactic acid; production of pigments by fungus *Monascus*, or complete waste-free utilization of animal by-products to the production of pet probiotic preparations in compliance with circular economy and zero waste management.

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