

Development of Scientific, Methodological and Practical Recommendations for the Creation of Organic Aquaculture Enterprises

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Abstract

Aquaculture represents a promising sector of agriculture. Recently, there has been a growing trend in agricultural production toward the use of environmentally friendly methods, including organic production technologies; this trend has extended to aquaculture as well. Successful examples of organic aquaculture development exist globally—in Europe, the USA, and Asian countries, including the People's Republic of China. The Republic of Kazakhstan has adopted a Fisheries Development Program for 2021–2030, which aims to increase the population's access to fish products and foster the development of fish farming (aquaculture). Achieving this goal requires addressing several tasks: increasing the volume of aquaculture production and processing; developing domestic fish feed production; ensuring scientific and workforce support for the industry; and providing state support for aquaculture development. Furthermore, the draft Law of the Republic of Kazakhstan "On Aquaculture" outlines the following state policy objectives: 1) ensuring national food security; 2) creating economic conditions for producing competitive aquaculture products and processed goods; and 3) fostering the production of organic aquaculture products in compliance with the Law of the Republic of Kazakhstan "On the Production and Circulation of Organic Products." However, there are currently no operational organic aquaculture enterprises in Kazakhstan; this study represents the only initiative of its kind. The authors selected the zander (pike-perch)—a highly valued species—as the primary subject of the study. The research aims to establish an experimental fish farm utilizing organic aquaculture technology. Specific objectives include adapting advanced organic fish production methods, determining optimal conditions for producing and rearing organic zander stocking material, and establishing optimal conditions for producing market-ready fish. Addressing these tasks will facilitate the creation of a functional enterprise for producing organic aquaculture products in Kazakhstan.

Keywords

Aquaculture, Fish Farming, Zander, Organic, Enterprise, Technology

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