

Optimization of sturgeon intensive breeding technology by using additive feed with vegetative bioactive compounds

In intensive aquaculture systems, maximizing production employs high stocking densities and significant food imbalances, which can lead to the exposure of crop fish to stressful living conditions. High stocking densities can favor rapid transmission and propagation of specific pathogens and create the context of rapid deterioration of the water quality. The limited space in which fish are forced to live is a factor that overstates the adaptation mechanisms leading to the weakening of the body's resistance to illness. Therefore, there may be situations where aquaculturists are confronted with problems of rapid deterioration in water quality, sometimes even with the onset of illnesses that may have negative consequences on production.

Often aquaculturists use a range of allopathic pharmaceuticals (antibiotics, hormones) to stimulate appetite, respectively to increase but also to prevent and treat diseases, but their frequent use may lead to adverse effects on both the health status of fish, as well as the environment and, last but not least, the consumer. Uncontrolled use of antibiotics in some cases contradicts the international policy that limits their use as a result of the accumulation effect in the meat and liver of the fish or leads to the emergence of resistant forms of bacteria.

In this respect, the research carried out in recent years by the team of specialists from the Department of Aquaculture at the Lower Danube University in Galati focused on the replacement of pharmaceutical products with natural products known as phytobiotics whose active substances have antioxidant effect and antimicrobial, bioproductive, stimulating enzyme equipment and immunity.

The main purpose of the project FITOBIOACVA was represented by the transfer / implementation of a technological solutions for improvement growth performance and physiological health status of growing sturgeons by adding bioactive compounds extracted from thyme and sea buckthorn in the fish feed. Secondary the project aim was to consolidate the practical training of master students involved in aquaculture program.

More details: www.fitobioacva.ugal.ro