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## WAYS TO INCREASE THE EFFICIENCY OF FISHERIES THROUGH THE USE OF ENERGY-EFFICIENT LIGHTING SYSTEMS

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### ABSTRACT

*This article deals with the application of energy-saving electro-technological systems in the rapid development of the fishing industry in the Republic. They provide information on reducing electricity consumption and saving food and feed products through their use. The biological enhancement results of low-intensity laser beams date back to the late 1960s and early 1970s and were derived from the use of a helium neon laser ( $\lambda = 632,8 \text{ nm}$ ) and was the first industrially manufactured device. In the optimal regimes of the photovoltaic, hematological parameters were normal. In the absence of light, a clear separation of neutrophilia and leukopenia was observed.*

**KEYWORDS:** *Electro-Technological Device, Low-Intensity Laser Beams, Ultraviolet and Infrared Rays.*

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**REFERENCES**

- [1] Resolution of the President of the Republic of Uzbekistan No. PD-4005: On additional measures for further development of the fisheries sector. – Tashkent: November 6, 2018.
- [2] Recommendations for the reproduction of sturgeon fish in fish-breeding industrial complexes using innovative methods.
- [3] Babko A.N., Inyutin S.P. (2015)*Electric lighting and energy efficiency*. – Astana: - p. 129.
- [4] N. F. Kozhevnikova., L. K. Alferova., A. K. Lyamtsov. (1987) *the use of optical radiation in animal husbandry*. – Moscow.– p. 87.
- [5] Konstantin Kodryanu. (2013) *Electric lighting Chisinau*. – p. 400.
- [6] V.A. Kozinsky. (2016) *Electric lighting and irradiation*.–Moscow:- p. 240.
- [7] M.I.Ismoilov., T.M.Bayzakov., A.J.Isakov. (2007)*Electric lighting and irradiation*.–Tashkent: - p. 183.
- [8] EIR - Electrical Installation Rules. 7th edition. – p. 340.
- [9] AF Erk., VA Razmuk., AN Efimova. (2014)*The use of energy-saving lamps in the lighting systems of the premises of the livestock complex.-Int. agro-industrial exhibition-fair “Agorus”* – SPb. – pp.182-184.
- [10] Lighting standards for agricultural enterprises, buildings, structures - OSN APK 2.10.24.001-04.