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PREVENTION OF FISH ASPHYSICS MEASURES

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Annotation: The amount of oxygen for carp and herbivorous fish should be 6-8 mg O_2 / l in winter and summer, 8 mg O2 / l for trout and other salmon and ostriches (4-5 mg O2 / l is necessary for carp). Lack of oxygen in the water source, improper preparation of pools, lack of inflow and outflow of water, abundance of fish and organic matter cause oxygen deficiency.

Key words:asfiksiya, resur tejamkor, intensiv, texnologiya, aerasiya, OPTATECh.

Relevance of the topic. In accordance with the decision of the President of the Republic of Uzbekistan dated August 29, 2020 “On measures to support the fishing industry and increase its efficiency” No. PQ-4816, support for the fishing industry in the republic, fisheries and in order to increase the efficiency of fisheries, ensure rational and efficient use land and water resources in this area, widespread introduction of intensive technologies:

From 2020, the tax for the use of water resources for fisheries growing fish in artificial reservoirs will be calculated at the rates established for irrigation of agricultural land, based on the difference between the volume of water withdrawn from reservoirs and returned.

The Ministry of Water Resources together with the Ministry of Agriculture and the Uzbek Fish Industry Association:

In 2022-2023, in conditions of water shortage in artificial reservoirs, the practice of widespread use of new resource-saving intensive technologies and secondary water sources by fisheries that take water from rivers and canals is gradually being introduced.

Currently, practical measures are being taken in our republic in connection with the implementation of this decision. However, asphyxia of fish during the cultivation of fish and fish products, including the failure to satisfy the oxygen needs of fish, to some extent hinders the development of the industry.

Level of knowledge of the problem. First of all, the lack of oxygen in the water or its absence at all is very dangerous for fish, and this leads to the death of reservoirs and suffocation (evaporation) of fish. The amount of oxygen for carp and herbivorous fish in winter and summer is 6-8 mg 02/l. 8 mg 02/l for trout and other salmon fish and crucian carp (minimum 5-6 mg 02/l for trout and crucian carp, 4-5 mg 02/l for carp). Lack of oxygen in the water source, improper preparation of ponds, insufficient provision of inflow and outflow of water, abundance of fish and abundance of organic matter in ponds cause oxygen deficiency.

Purpose of the study. The studies were carried out in intensive reservoirs of the Pastdargom and Kattakorgan districts of the Samarkand region, i.e. on asphyxiated fish belonging to the carp family.

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Our research aims to identify and prevent fish suffocation, which is common and becomes a serious problem in intensive fish farming.

Materials and methods of research. In order to study the clinical signs of the disease, fish suspected of having the disease were separated and kept in a specially prepared aquarium under constant observation. At the Department of Diseases of Birds, Fish, Bees and Fur Animals in the interdepartmental laboratory OPTATECH, microscopic and clinical studies were carried out to determine the level of hydrogen in water using litmus paper and diagnose infected fish.

The results obtained and their analysis. On the farms where we conducted experiments, we bred mainly carp and herbivorous fish. When measuring the amount of oxygen with an oximeter at the Otabek Dustov field in winter, it was 4.4 mg 02/l, in summer - 5-7.4 mg. (for carp a minimum oxygen content of 4-5 mg 02/l is required). The lack of oxygen in the winter months and early spring has caused an increase in the susceptibility of fish on the farm to various infectious and invasive diseases in the spring and summer. This is caused by a lack of oxygen in water sources in fisheries, improper preparation of ponds, insufficient provision of inflow and outflow of water, an abundance of fish and an abundance of organic matter in the ponds, which leads to a decrease in the amount of oxygen and a transition to an acidic environment. The number of worms has increased and the fish began to become infected with lernia.

In winter, the perennial ice covering of reservoirs on the farm territory led to a lack of oxygen for fish. Overpopulation of dead waters after a long winter resulted in a mortality rate of 2%.

In summer in June, the abundance of fish in farm ponds leads to the accumulation of residual water at the bottom of the pond, which receives more nutrients and fertilizers, phytoplankton, which changes the color of the water to blue-green and green. algae causes an increase in T and subsequently causes a lack of oxygen, as a result of which it was observed that fattened fish die first due to the high oxygen demand.

As a result of asphyxia, the following clinical signs were observed in fish. When there is a lack of oxygen, fish swim to the place where the water flows; when they freeze in winter, they gather in holes and breathe on the surface of the water, and the wounds of sick fish turn white. The wounds of sick fish are pale and swollen. Slow fish movement, poor food intake or no food at all. Weakened fish can be blown ashore and die. Signs of suffocation were observed, such as the fish's mouth and jaws remaining open.

In the fight against fish asphyxia.

1- An increase in the inflow and outflow of water in reservoirs where fish died was ensured (Otabek Dustov, Payarik district);

2- Additional aerators were installed, resulting in water splashing and asphyxia was prevented by saturating water droplets with air oxygen (Otabek Dustov);

3- Conventional aeration devices were installed at the entrance to the watercourse (Pajarik district);

4- It was possible to prevent asphyxia thanks to the use of permanganate and potassium peroxide (1 g/m3) to quickly saturate the water with oxygen (Otabek Dustov, Payarik district).

Conclusions. The amount of oxygen for carp and herbivorous fish in winter and summer should be 6-8 mg 02/l, for trout and other salmon and ostriches - 8 mg 02/l (for carp 4-5 mg 02/l is required). To prevent asphyxia, permanganate and potassium peroxide (1 g/m3) were used to quickly saturate the water with oxygen. Low oxygen levels in the water source, improper preparation of reservoirs, poor water infiltration, excess fish and organic matter cause oxygen deficiency.

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Recommendations:

1. Muhammadiyev, Z. N., & Qurbonov, F. I. (2022). Самарқанд Суньий Сув Ҳавзаларида Яшовчи Карпсимон Балиқларнинг Гельминтофаунаси Ва Уларнинг Экологик Хусусиятлари. *Theoretical aspects in the formation of pedagogical sciences*, *1*(1), 18-22.

2. Курбанов, Ф. И., Саттаров, Д. М., & Хушназарова, М. И. (2023). МЕРЫ ЛЕЧЕНИЯ САПРОЛЕГНИОЗАМ И ТРИХОДИНОЗОМ. *AGROBIOTEXNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI*, *2*(4), 40-45.

3. Enatillayevich, K. F., Madaminovich, S. J., & Ilxomovna, X. M. (2023). BALIQLARDA TRIXODINOZINING DAVOLASH USULLARI VA OLDINI OLISH CHORALARI. *AGROBIOTEXNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI*, *2*(4), 21-27.

4. Kurbanov, F. E. (2022). Baliqlar Saprolegniozining Epizootologiyasi Va Qarshi Kurash Chora-Tadbirlari. *Educational Research in Universal Sciences*, *1*(7), 152-158.

5. Sh, A. A., Babamuratova, N. B., & Qurbonov, F. I. (2022). Baliqlarda Xilodinillioz, Trixodinioz, Krasnuxaning Aralash Oqimda Kechishi. *Agrobiotexnologiya Va Veterinariya Tibbiyoti Ilmiy Jurnali*, 45-48.

6. Сатторов, Д., Курбонов, Ф., & Салимов, И. (2022). Baliqlarning zamburug „li kasalliklari. Saprolegnioz. *Перспективы развития ветеринарной науки и еѐ роль в обеспечении пищевой безопасности*, *1*(2), 137-141.

7. Enatillayevich, K. F., Madaminovich, S. J., & Sheraliyevich, S. D. (2023). BALIQLAR SAPROLEGNIOZIGA QARSHI KURASH TADBIRLARI. *AGROBIOTEXNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI*, *2*(4), 14-20.

8. Сатторов, Д., Курбонов, Ф., & Салимов, И. (2022). Грибные заболевания рыб. Сапролегниоз. *Перспективы развития ветеринарной науки и её роль в обеспечении пищевой безопасности*, *1*(2), 137-141.

9. ENATILLAYEVICH, K. F. (2022). BALIQCHILIK XO ‘JALIKLARIDA SAPROLEGNIOZ KASALLIGINING TARQALISH YO ‘LLARI VA PROFILAKTIKASI. *Scienceweb academic papers collection*.

10 ENATILLAYEVICH, K. F. (2022). BALIQLARDA XILODINILLIOZ, TRIXODINIOZ, KRASNUXANING ARALASH OQIMDA KECHISHI. *Scienceweb academic papers collection*.

11. ENATILLAYEVICH, K. F. (2022). suniy suv havzalarida baliqlar saproligniozini davolashda qo'llanilgan preparatlar samaradorligi. *Scienceweb academic papers collection*.

12. ENATILLAYEVICH, K. F. (2022). БАЛИҚЛАР САПРОЛЕГНИОЗ ВА ТРИХОДИНОЗИНИДАВОЛАШДА ҚЎЛЛАНИЛГАН ВОСИТАЛАР ИҚТИСОДИЙ САМАРАДОРЛИГИ. *Scienceweb academic papers collection*.

13. ENATILLAYEVICH, K. F. (2023). YUQUMSIZ BRONXIONEKROZNING BALIQLARDA RIVOJLANISH SABABLARINI ANIQLASH. *Veterinariya meditsinasi jurnali Maxsus son*.

14. ENATILLAYEVICH, K. F. (2023). BALIQCHILIK SOHASIDAGI MUAMMOLAR VA ULARNING YECHIMI. *Veterinariya meditsinasi jurnali Maxsus son*.

15. ENATILLAYEVICH, K. F. (2023). KARP BALIQLARIDA SAPROLEGNIOZ VA TRIXODINOZNI DAVOLASH. *Veterinariya meditsinasi jurnali Maxsus son*.

16. ENATILLAYEVICH, K. F. (2023). BALIQLARNING ASFIKSIYASINI OLDINI OLISH. *Veterinariya meditsinasi jurnali Maxsus son*.

17. ENATILLAYEVICH, K. F. (2023). BALIQLAR SESTODOZLARINI TARQALISH MONITORINGI. *Veterinariya meditsinasi jurnali Maxsus son*.

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Volume: 10, Issue 12, Dec-2023 SJIF 2019: 4.702 2020: 4.737 2021: 5.071 2022: 4.919 2023: 6.980

18. ENATILLAYEVICH, K. F. (2023). SUN'IY SUV HAVZALARIDA BALIQLAR LERNIOZINI DAVOLAShDA QO'LLANILGAN PREPARATLAR. *Veterinariya meditsinasi jurnali Maxsus son*.

19. ENATILLAYEVICH, K. F. (2023). BALIQLAR QONINING SOLISHTIRMA KO'RSATKICHLARINI ANIQLASH USULLARI. *Veterinariya meditsinasi jurnali Maxsus son*.

20. ENATILLAYEVICH, K. F. (2023). BALIQLARNING OZ UQALARDAN ZAHARLANISHLARINI DIAGNOSTIKA QILISH. *Veterinariya meditsinasi jurnali Maxsus son*.

21. ENATILLAYEVICH, K. F. (2023). BALIQCHILIK SOHASIDAGI MUAMMOLAR VA ULARNING SAMARALI YECHIMI. *Veterinariya meditsinasi Maxsus son*.

22. ENATILLAYEVICH, K. F. (2023). YUQUMSIZ BRONXIONEKROZNING BALIQLARDA RIVOJLANISH SABABLARINI ANIQLASH. *Veterinariya meditsinasi jurnali Maxsus son*.

23. ENATILLAYEVICH, K. F. (2023). BALIQLARNING OZUQALARDAN ZAHARLANISHLARINI DIAGNOSTIKASI VA OLDINI OLISH CHORA-TADBIRLARI. *Veterinariya meditsinasi Maxsus son*.

24. ENATILLAYEVICH, K. F. (2022). suniy suv havzalarida baliqlar saproligniozini davolashda qo'llanilgan preparatlar samaradorligi. *Scienceweb academic papers collection*.

25. Berdiyevich, D. R., Khudoiyberdi o‘g‘li, K. A., & Ilhomovna, K. M. (2022). EPIZOOTOLOGY OF EIMERIOSIS (COCCIDIOSIS) OF RABBITS, TREATMENT AND PREVENTIVE MEASURES. *Ann. For. Res*, *65*(1), 602-607.