

FISH GROWING IN YANGIYER FISHING FARM OF SYRDARYA REGION OF THE REPUBLIC OF UZBEKISTAN

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ANNOTATION

Reservoirs and ponds in the Republic are the main sources of live fish. The Yangiyer fishery is home to three species of fish, the white amur, the white-tailed deer, and the carp. In order to study the biological characteristics of fish raised in the Yangiyer fishery from infancy to the state of the commodity (the level of fish sales), observations are being made in collaboration with fishery staff. One of the most sensitive tasks in fisheries is recommendations for the proper implementation of this wintering technology. Consumer fish ponds are also prepared as spawning and breeding ponds before the fish are brought in, after which the fish are distributed to them.

Keywords: Fisheries, white amur, whitefish, carb, trout, edible fish, larvae, pond, mineral fertilizer-phosphorus, nitrogen, calcium, potassium, food.

INTRODUCTION

Fish is the most important source of nutrients for humans. Fishermen have been fishing in the oceans, seas, rivers and lakes for centuries. At the same time, for more than 2,000 years, fish have been raised in artificial ponds. The small fish that hatch from the eggs are placed in ponds, fed and fertilized. As technology improved, fishermen's dependence on external factors became less and less, and as a result of the use and development of scientific advances, they began to achieve high performance. The aquaculture sector of the economy was formed and developed particularly rapidly as natural fish stocks dwindled. Along with other countries, Uzbekistan is carrying out large-scale practical work to increase fish production. Fisheries play an important role in the national economy of our country, and along with the planned management of the economy, the rational use of natural resources, including the country's fish resources, conditions are created for the development of fisheries.

At present, the issue of sharply increasing fish production remains relevant due to the task of ensuring food security. Low consumption of fish products leads to a deficiency of essential vitamins (iodine, calcium and other easily digestible proteins) in the human body (Kurbanov , Xalpaev, 2011).

Our sages say that one can talk as much as one wants about the fish, which is one of the most amazing creatures of the eighteen thousand universes, one of the seven treasures. Marine life has been consumed by mankind since ancient times. He was also described as a "halal bite" because he lived in the water, a symbol of purity.

Fish farming in Yangiyer fishery In 2014-2016, in collaboration with fishery staff, to study the biological characteristics of fish grown in Yangiyer fishery of Syrdarya region from infancy to commercial status (level of fish sales). we went.

The Yangiyer fishery grows three species of fish: white amur, whitefish and carp. Of these, the White Amur and the White Dung are brought from the Amur Basin and are air-conditioned in the watersheds of Uzbekistan. These fish are artificially spawned in the Lower Chirchik district of Tashkent region, and larvae are taken from their caviar. The larvae of the above 3 species of fish were brought from the Lower Chirchik district in 15.05 months for fish farming in Yangiyer fishery.

To do this, 40 ha of fish larvae hatched from the incubator. the pool in the area was dewatered and agro-technically treated. First, the area was well plowed with a plow tractor, then the large blocks were crushed, processed, cleared of existing debris and stones were collected at the edges of the pool, then water was pumped into the pool through a small kapron net to provide one-third of its natural nutrients. completed. 3-4 tons of organic fertilizer per hectare of water, ie rotten cattle manure, is applied and 50 kg of ammonium nitrate and 25 kg of ammophos solution are applied evenly.

The norm for fertilizing the pool

name of fertilizer	Fertilization rate is gG
Ammonia nitrate	55-60
Simple superphosphate	70
Donador superphosphate	60
Secondary superphosphate	25
Ammonium sulfate	75
Ammofos	30-40

The following are used as nitrogen-phosphorus fertilizers:

1. Phosphorus fertilizers:

- A) simple superphosphate contains 7-14% phosphorus;
- B) contains 8% phosphorus in the granular superphosphate;
- C) secondary superphosphate contains 19% phosphorus;

2. Nitrogen fertilizers:

- A) contains 30-34% nitrogen in ammonium nitrate;
- B) ammonium sulfate contains 20% nitrogen;
- C) ammophos contains 40-45% phosphorus and 20-22% nitrogen.

Each liter of fish pond water should contain 2 mgG/l of nitrogen and 0.4-0.5 mgG/l of phosphorus. Nitrogen fertilizer should be applied in pool water at the rate of 3500 mg or 3.5 gG of pure nitrogen. The pool was then filled with a small kapron net to fill one-third of it with natural nutrients.

The water basin is divided into 2, i.e. a small breeding pond (in this pond fish are reared for 12-25 days depending on the number of natural food organisms) and a large pond.

Carriage of fish larvae in double-layered 20, 40 liter cellophane bags is especially popular in Uzbekistan. The cellophane bag is half-filled with clean water, where 20,000 larvae are placed, and the cylinder is filled with oxygen under pressure. The bag is sealed and placed in the car. In this way, the larvae can be transported anywhere in Uzbekistan. For short distances, the

larvae can be transported in open or closed tanks and other containers. To prevent the larvae from dying from the effects of temperature, it is very important that the water in the larvae container and bag is the same as in the pool.

Imported larvae are not immediately released into the pool from cellophane bags. The bags were dropped into the pool and placed in the pool with the bag for about 40 minutes until the temperature was equal, and during the release of the larvae, the bag was opened in the water itself and released into the water.

After the larvae adapted to the lake environment, they were fed a day later. This is because the larvae that are released into the water now have up to 2 days of reserve nutrients, which they live on. Then the larvae began to be fed artificially, that is, flour was sprinkled on the lake where the larvae were thrown.

The 40-hectare lake, where the larvae were laid, was sprayed twice, at 2 am at 7 am and 2 kg at 6 pm. In this way the larvae were fed with flour for 20–25 days.

The number of larvae of fish in the lake was as follows: whitefish 500 thousand per hectare, white amur 250 thousand per hectare and carp 250 thousand per hectare. A total of 4 million larvae are hatched.

As the number of fish larvae in the lake increased, the level of the lake increased, resulting in increased feeding on flour. The process took a month. A month later, mixed feeding (wheat, corn, compound feed, daphnia, water plankton, etc.) began.

Cellophane bags with fish fillets. The main task of this important fish farming period is to raise one summer fish weighing 25 g or more by autumn, because the same summer fish will survive the winter. The conditions for growing summer fish in Uzbekistan are favorable, and this period lasts from June to November.

Amur loves reeds and other algae. White-tailed deer feed on combi-feed, daphnia, and aquatic plankton. Carp were given wheat and corn. When fed, they are adapted to the following diet: the white carp feeds on surface water, the carp feeds on bottom food, and the white grass carp feeds on underwater food.

The weight of the fish raised in the pond was measured every month, and as a result, we observed that they were growing. Fish larvae were fed twice a day, in the morning and in the evening. These fish were released into large ponds after 10 months and weighed between 0.25g and 100g.

Our observations show that about 200,000 of the 1 million larvae released into the pond, or 700,000 of the 5 million larvae, survived.

Of course, in order for fish farms to grow normally and increase their productivity, it is necessary to: improve the natural nutrient base of the watershed; improve land reclamation, provide the watershed with organic and inorganic fertilizers, and provide fish with mixed fodder.

It is known that in the early days, the larvae feed on aquatic natural nutrients - phytoplankton and zooplankton. The development of phyto and zooplankton organisms is observed as a result of pond treatment.

In the fall, from October, feeding of fish will be reduced or stopped. Winter hardiness depends on their fatness.

For wintering, the average depth of the pool should be up to 1.5 meters, a maximum of 2.5 meters, and the pool water should be changed throughout the winter. If the water freezes, its surface should be perforated and an air hole should be drilled. Otherwise, the fish may suffocate and die. Of the fish mentioned above, the Amur catfish, in particular, is very fragile and dies from lack of air.

One of the most difficult tasks for fisheries is to get the wintering technology right.

The following measures will be taken during the winter: The bottoms of the ponds will be cleaned and 150-200 kg of lime will be applied per hectare.

The pools are filled with water and the water in the pool (at a rate of 8 mg per liter) is treated with malachite green. During the winter, it is very useful to repeat the treatment of water with malachite green at the rate of 0.1 mg/l every 7-10 days. To do this, a solution of the required amount of malachite green powder is prepared and poured into the pool.

One summer of carp is transferred to winter at a transfer rate of 500-800,000 G.

During the winter, dead fish are removed from the pond every day.

Water basins should have a constant flow of water and the water should be at the same temperature. There is a monthly monitoring hunt in January. It is known that fish go to the bottom of the water in winter and do not feed. If fed, they will rot to the bottom of the water, spoil the water and result in fish becoming ill. From March of the following year, the fish begin to be fed and after 1 month of feeding they turn into large fish. From mid-April, the fish in the pond will be released for consumption.

The surface of the ponds is several hectares and the water is 1.5 m thick. Small pots of 7-10 days old are brought to these pools. During the summer, these tiny chicks in the ponds produce one-year-old chicks for edible fish. If you want to grow fish for the purpose of fishing in a natural lake, for every 100 hectares of natural water surface, there is 1 hectare of pond. The smaller the ponds to protect the breeding ponds from birds, the better the efficiency (0.5-1.0-1.5 ha). It is easy to catch fish in the ponds in this area. The optimal depth of the growing pond is 70-100 cm (the shallow part should be 25-35 cm and the depth should be 120-150 cm). Growing ponds should be filled in 3-5 days, and drainage should be done in 4-5 days. Growing ponds should be as close to winter pools as possible or close to natural lakes. It is advisable to prepare ponds for growing in any convenient location of natural water.

It is recommended to place 3-5 million carp larvae or 1.5-2.5 million larvae of herring (whitefish and grass carp) per hectare of small breeding pond. The amount and weight of juveniles raised in these ponds also vary. Carp fish weigh 50 milligrams and spawn 50%, herbivores weigh 30-50 milligrams and spawn 60%.

The breeding pond, like the small pond, is well prepared until the fish are laid. The natural nutrients in this pond should not be less than the nutrients in small ponds. Juveniles placed in breeding ponds initially feed on natural food - zooplankton. Later, when the natural nutrients in the pool are depleted, artificial feeding is started. In July, zooplankton organisms are almost non-existent in fish ponds of the republic. Growing ponds also have feeding areas, such as

fattening ponds. These ponds also use artificial fodder for feeding, but these fodder is mixed with 10-15% (silkworm mushrooms, blood, bone and fish flour, shellfish, etc.). It is usually best to give this formula at 8-10 or 15-16 in the morning.

At the beginning and middle of each month (on the 1st and 15th) there is a control catch to monitor the growth of fish.

Then it is possible to calculate the artificial feed, depending on the average weight of the fish obtained. Artificial feeding of young fish during the growing season is determined on a monthly basis (June-8%, July-29%, August-27%, September-22%, October-14%).

The feed given to the chicks in the pool is monitored daily. If the chicks are not eating the full amount of food, it is possible to reduce the amount of food and increase the amount of food if it is full.

Feeding of chicks is stopped when the water temperature is 12-13°C (in the republic this time is the end of October).

Each hectare of breeding pond is planted with 100-150 thousand hatched larvae (100 thousand carp larvae and 40-50 thousand larvae of herbivores). These ponds can grow 60-90 thousand fry in autumn.

The food used in fishing is natural and artificial. Natural food is aquatic organisms - phytoplankton, zooplankton, zoobenthos and higher algae. To stimulate their development, the ponds are fertilized with organic and inorganic fertilizers. Such ponds are called extensive if they are fed on a completely natural diet. Incomplete intensive fish feeding is called if the pond uses a method of supplemental feeding other than fertilizer. If the fish is fed this way, the productivity will be much higher. Intensive fish farming is when fed fish are fed a complete mix of feed without the use of natural nutrients and fertilizers. It is advisable to have a mill on the farm to prepare artificial fodder.

The average breeding season is 15-20 days. When the fish weighed 1-3 grams, all the fish in the pond were caught and moved to larger ponds to allow them to grow during the season.

After the fish fry were thrown into the pond, the reeds and reeds were harvested to protect them from the sun's ultraviolet rays and heat, and then thrown to the surface of the water, i.e., umbrellas, to create favorable conditions for the development of fish larvae. the pool is 100% filled with water.

The color of the water should be blue, and most importantly, the water should not overheat, because if the water overheats, the fish larvae will get sick. The fish larvae thrown into the pond were not given any food on the first day, and flour was sprinkled on the surface of the water from the second day. Fish larvae were fed flour for a week. A week later, the dough was thrown into the pool. The process took a month. A month later, mixed feeding (wheat, corn, compound feed, daphnia, water plankton, etc.) began.

The fish are transferred to the breeding pond until the fall. Small fish are transported in the same way as larvae in plastic bags or in a vehicle carrying live fish. Small fish are calculated as follows. One bucket of small fish is weighed and the number of fish in it is counted, then the number of buckets filled with fish during the transfer is counted, and then the total number of fish is recalculated. In good breeding, the output of fish is 50% of the total number of larvae transferred.

The fish are transferred to the breeding pond until the fall. Small fish, like larvae, are transported in plastic bags or in a live fish carrier. The main task of this important fish farming period is to raise one summer fish weighing 25 g or more by autumn, because the same summer fish will survive the winter. In this way, fishing can be encouraged.

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