



Inventor

Dr. Hanping Wang, PhD

Dr. Wang is a Principal Scientist and Director of Aquaculture Research and Development at Ohio State University. Dr. Wang's main research interests include fish epigenetics, sex-control and determination mechanisms, selective breeding and immune-relevant genes and their relation to stress. He has written over 100 scientific publications and is a member of numerous editorial boards for journals on fisheries and aquaculture.

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College

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Techniques for the Large Scale Production of All-Male Bluegill and All-Female Yellow Perch Stock

Description of the Production Techniques and Results

Dr. Wang developed a technique for the large scale production of genetically male bluegill (GMB) stock through selective breeding methods. The GMB stock fish grew 20% faster, were 3 to 5 times larger, and had 30% less size variation compared to mixed-sex stock. Additionally, The survival rate was 96.6%, 21.6% higher than the mixed-sex stock.

Dr. Wang also developed a technique for the production of all female yellow perch fish stock by means of dietary supplements. The mono-sex female stock grew 26.3% faster than normal mixed sex stock and 60% faster than males on average.

Therefore, a mono-sex culture of bluegill and yellow perch fish holds considerable potential as a method to increase the efficiency and profitability of food and recreational aquaculture by improving growth rate, size, and survivability. Additionally, mono-sex bluegill technology can also be applied in controlling natural bluegill populations.

The Market

- The United States fish and seafood aquaculture industry revenue was \$1.5 billion in 2018 and is expected to reach \$1.6 billion by 2023, at a CAGR of 1.1%
- The sale of other food fish such as Bluegill and Yellow Perch account for 26.0% of total industry revenue. (IBISWorld)
- The Global aquaculture industry revenue was \$170.0 billion in 2017 and is expected to reach \$226.1 billion in 2022, at a CAGR of 5.9%
- The sale of other food fish such as Bluegill and Yellow Perch account for 1.2% of total industry revenue. (BCCResearch)

Contact Information

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