

SUSTAINABLE BREEDING WITH GENOMIC PRECISION

ABOUT US

Benchmark Genetics Shrimp

Benchmark Genetics Shrimp, operated by our team of experts in USA, Norway and Colombia is part of the UK based Benchmark Holdings plc., a leading provider of solutions in aquaculture genetics, health and specialist nutrition (INVE).

We operate a world-leading breeding program for *Penaeus vannamei*, and we sell genetically improved SPF/SPR certified strains to the global market from our bio-secure multiplication centre in Florida, USA. Benchmark's global team of geneticists holds 22-year of breeding experience and are using the latest genomic tools to improve growth levels and resistance to diseases such as WSSV and AHPND. Our stocks have a broad genetic base originating from multiple geographical sources, making it possible for us to select for today's conditions and future needs, and to develop strains genetically adapted to the different farming conditions.

We work in tight collaboration with our sister companies Akvaforsk Genetics and INVE to continually develop and optimize the value of our offer to the global shrimp market.

Our global presence is consolidated by our local sales and technical teams, strategically localized production centres, and commercial alliances with local leading companies in main markets.

Benchmark Genetics

Benchmark Genetics is a world-leader in breeding and genetics for several aquaculture species, including Atlantic salmon, tilapia and *vannamei* shrimp. Our strategy is innovation-led, making use of modern breeding technologies such as QTL and Genomic Selection. Improved disease resistance, faster growth and better yield are driving forces in our selective breeding programs — resulting in cost-effective production and higher economic returns for the farmer.

Benchmark's subsidiary companies collaborating on this project





Benchmark Genetics Shrimp





OUR BREEDING PROGRAM

Designed and supervised by Benchmark's Akvaforsk Genetics, we are proud to say that our selective breeding program is the world's most scientifically documented genetic improvement program for *Penaeus vannamei*.

Akvaforsk Genetics is a leading provider of genetic improvement services for aquaculture industries worldwide with extensive experience from more than 25 applied selective breeding programs covering 15 species in 16 countries across Europe, Asia and Latin America.

Gene Supermarket

Our stocks have a broad genetic base originating from multiple geographical sources, wild and domesticated, to which Oscar Hennig, director of Operations at Benchmark Genetics Shrimp refer to as 'The Gene Supermarket'.

This genetic base, sourced from breeders in Colombia, Hawaii, and Venezuela, and from the wild populations in Costa Rica, Ecuador, El Salvador, Panama, and Peru amongst others, increases the diversity of and provides our team of geneticist with multiple options and a wider range of selection for breeding.



One size does not fit all!

There are important interactions between Genetics and Environment. The best animals for one environment – or management practices – are not necessary the best for another. We do continuous collaborative work with our partners and clients to deliver lines with the best adaptability to their environmental conditions.

Oscar Hennig

Operations Director Benchmark Genetics shrimp

OUR PRODUCTS

We select, develop and sell genetically improved, SPF/SPR certified, *P. vannamei* broodstock for hatcheries worldwide. These stocks have a broad genetic base making them more robust to new diseases or harsh environmental conditions, while at the same time they have been selected for resistance to specific pathogens.

Benchmark Genetics Shrimp emphasises on the production of robust stocks which can survive and produce under commercial conditions where it is impossible to eliminate all diseases and other stressors.

Our product range

Main line



Selected primarily for growth with high survivability

Specialized lines



BMK Protect[®]

Selected for improved resilience to WSSV and AHPND/EMS



low salinity conditions

SHAPING THE FUTURE OF SHRIMP PRODUCTION

Benchmark Holdings plc

Benchmark's mission is to enable food producers to improve their sustainability and profitability.

We bring together biology and technology, to develop innovative products which improve yield, quality and animal health and welfare for our customers. We do this by improving the genetic make-up, health and nutrition of their stock — from broodstock and hatchery through to nursery and grow out.

Benchmark has a broad portfolio of products and solutions, including salmon eggs, live feed (artemia), diets and probiotics and sea lice treatments.

Find out more at benchmarkplc.com

Our locations

Global outlook, local reach



Benchmark Insights:

TECHNOLOGIES SHAPING THE FUTURE OF SHRIMP PRODUCTION



<u>Click here</u> to download the Benchmark Insights shrimp edition

For sales and technical enquiries, please contact:

Global

shrimp@bmkgenetics.com

- shrimp.bmkgenetics.com
- → +1 772 316 0499



Benchmark Genetics Shrimp is a subsidiary of Benchmark Holdings plc.

Copyright © 2021, Benchmark Holdings plc. This material and its contents are the property of Benchmark Holdings plc and should not be copied, reproduced or modified except with the explicit permission of Benchmark Holdings plc. All rights reserved.

BMK Genetics Shrimp Brochure /09 February 2021/EN-10107