

Team develops innovative gene-silencing biotechnology to advance aquaculture with prawns

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Ben-Gurion University of the Negev (BGU) has developed an advanced gene-silencing biotechnology for aquaculture that changes the sex of prawns and yields the faster-growing all male populations, resulting in greater output and farmer income.

"The technology is sustainable because it doesn't use any chemicals or hormones and does not create genetically modified organisms," said BGU's Prof. Amir Sagi. "This is made possible through the unique monosex culture of prawns, which we can obtain by using our original discovery of a naturally occurring, androgenic hormone that influences their gender. Since males are faster growers, this discovery could help farmers increase their income."

The innovative technique was patented and licensed through BGN Technologies, BGU's technology transfer company, to the Tiran Group, an Israeli shipping company that operates [aquaculture farms](#) in China. The Tiran Group is working with Green Advance Ltd. in Vietnam to implement the technology.

Incumbent of the Lily and Sidney Oelbaum Chair in Applied Biochemistry, Prof. Sagi is the former dean of BGU's Faculty of Natural Sciences, a member of the Department of Life Sciences and the National Institute for Biotechnology in the Negev, and serves as president of the International Society for Invertebrate Reproduction and Development.

"Prof. Sagi has pioneered a number of techniques to increase rice and crustacean output in countries like Vietnam for years," says Doron Krakow, executive vice president of American Associates, Ben-Gurion University of the Negev. "As the world faces a challenging [population growth](#) and decreasing resources, his work provides [sustainable solutions](#) for [developing nations](#)."

The [world population](#) has reached 7 billion and is projected to grow to 10 billion by 2050.

Provided by American Associates, Ben-Gurion University of the Negev

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