



Robin Pearly is CEO of Florida-based RAS shrimp producer American Mariculture Photo: Robin Pearl

Is indoor shrimp farming the next land-based aquaculture boom?

With fast growth rates and more location flexibility, could indoor shrimp farming be the new RAS investment frontier?

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Indoor shrimp farms using recirculating aquaculture system (RAS) technology remain somewhat niche, but investor interest in the sector appears to be growing.

One of the most prominent projects in the space, Homegrown Shrimp, is the giant indoor shrimp farm set up by Thai food heavyweight CP Foods. It will begin harvesting its first consumer products later this month, Homegrown CEO and CP Foods Vice President Robins McIntosh told **IntraFish**.

The farm is stocking two to three tanks each week, he said, with growth successful and the expectation the company will achieve its yearly target of 180 metric tons of shrimp.

Robins said with "serious players emerging," he even expects that number to increase, gauged by an increase in post-larvae sales from Homegrown's shrimp hatchery.

The farm has been supplying post-larvae to other indoor shrimp farming operations in the United States and Europe for over two years. In March, the company entered into an agreement with fellow land-based shrimp producer Natural Shrimp to deliver up to two million post larvae (PLs) per month for a year to the Texas-based operator.



"The post larvae we're creating at Homegrown has allowed many of the indoor farms to actually see success," McIntosh said, noting that companies are now seeing growth rates for shrimp of 85 days to harvest versus what was previously almost double that rate.

The company will likely sell 30 million post-larvae this year -- 20 million of that into the United States, McIntosh said.

That quicker harvest time, paired with the fact that indoor RAS shrimp facilities can be placed virtually anywhere, not just in coastal areas, is pulling more investors to the sector, according to McIntosh.

"It does seem there is a move to more investment in the area of shrimp from salmon. It makes sense to me, as the payback period and cash flow are quicker with shrimp than salmon and market values are very good for the locally produced products," he said.

"I'm looking forward to salmon growers getting involved. It would expand this market quickly because they've got capital."

Putting Homegrowns' specially bred indoor broodstock to work, Spain-based Noray is one of the companies that plans [to soon be able to supply](#) all of Europe's indoor shrimp farms. [In February, Paris-based Creadev injected €16 million \(\\$17.3 million\) into the company.](#)

"There are certainly more talks about the shrimp space from an investor point of view, with the likes of recent investment like Creadev in Noray Seafood," Devonian Capital co-founder Jamie Stein told **IntraFish**. "But people still want to see it work, and there is an appreciation that the shrimp value chain can be quite challenging."

He said the sector also needs to prove the product will not end up being "prohibitively expensive for consumers," in order to attract more interest.

Devonian Capital itself has invested in Royal Caridea, joining private individuals in backing the early-stage Arizona-based shrimp project.

"I think this kind of investor setup will be more common for some time yet, before the sector starts to attract more institutional investors," he said of the arrangement.

Investor interest is evident, according to Fabian Riedel and Bert Wecker, the brains behind and co-CEOs of German indoor shrimp farmer Oceanloop.

Their plan is to compete with bulk-produced shrimp by scaling the company to a size not yet seen in other indoor operations, with the company [now on a drive](#) to secure investment so it can begin scaling its proof-of-concept 25-metric-ton operation to hit 2,000 metric tons by 2027.



Fabian Riedel, cofounder and co-CEO at land-based shrimp farm Oceanloop. Photo: Oceanloop

A few weeks ago, Oceanloop completed a pre-closing of €2 million (\$2.2 million) from a German impact investor, Riedel said.

An important part of its sales pitch is the environmental sustainability of its operations.

US shrimp producer and Disney supplier Robin Pearl noted there has been longtime interest in how to grow shrimp in the United States, but the industry just hasn't found the right footing or marketing.

"A lot of companies have tried. There has just been a lot of failure," Pearl, who is the CEO of Florida-based RAS shrimp producer American Mariculture, told **IntraFish**.

Pearl himself saw setbacks at his operation in 2022, when a devastating hurricane tore through its [Pine Island site in Florida](#) that sells the brand Sun Shrimp. Pearl said his company is still working on its expansion that is expected to lift production from around 500,000 pounds (226 metric tons) of vannamei shrimp annually to close to 1 million (453 metric tons).

"We've been fixing what we have since the hurricane," he added, noting the company is now producing around 100 to 200 pounds per week, with that fresh product being scooped up by chefs who work at some of the nation's top restaurants, according to Pearl.

"Fresh product in America is unique, it just doesn't exist," he said.



Newer companies such as TransparentSea have worked hard to de-risk projects, to "fail small and early" and to hit numbers and prove market potential with little money and a lean team. Photo: Transparentsea/YouTube

Competing with commodity

It takes work sell shrimp in the US market. Unlike salmon, shrimp can have trouble maintaining a premium among US consumers.

Pearl said the key to standing out is having the right marketing.

"It's not just putting up a plant and selling shrimp. There's plenty of shrimp available," he said. "You need to find a way to differentiate."

Montana-based Mission Valley Shrimp owner Jim Vaughan shares Pearl's concerns. He told **IntraFish** while investor interest has grown in his family-owned indoor RAS operation where he raises 10,000 white Pacific shrimp a month to sell at local farmer's markets, the product is still competing with import prices.

He noted that the issue is not being able to sell his shrimp "as cheaply," even though the product "is so much better. "

Still recovering from COVID

Paul Damhof, owner of Minnesota-based Simply Shrimp, who started his RAS shrimp facility in 2017, started selling shrimp out of a converted dairy barn, where he replaced Holstein dairy cows with thousands of Pacific white shrimp. Although it operated until 2020, with COVID Damhof's business along with several other mom-and-pop RAS shrimp farms in the United States were decimated, he told **IntraFish**.

COVID issues delayed the company from receiving broodstock, but now the company is ramping up to re-open. Damhof is currently working on a hatchery and scaling up a new growout facility, with plans to re-open next year.

Steve Sutton's TransparentSea, an indoor shrimp farm nestled in the heart of foodie-centric southern California, currently produces around 1,000 pounds of shrimp per week, but the company is already making enough money to allow it to expand, he said.

"We make more than we have spent to cover our overhead," he told **IntraFish** of [the operation that opened in 2020](#) and sells its fresh shrimp for around \$20 (€18.50) a pound wholesale direct to restaurants in Los Angeles.

"We've had profitable months already. For me and my vision, we're trying to build several regional farms. We're not sure market size is for whole, fresh prawns, but we know it's a lot bigger than what we sell now."