

## Danes go onland

One land-based Danish salmon farm is demanding a higher price for its fish, and consumers are paying.



## Tilapia in trout country

We visit an Idaho tilapia farm catering for a very niche market.

## Fact or fiction?

FFI talks to the founder of a U.S. biotech company on the verge of creating a virus-immune shrimp.

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# THE CHANGING FACE OF ASIAN AQUACULTURE



A small-time tilapia farmer speaks about challenges in regulation and shipping to a very niche market.

**Avani Nadkarni**

US-based Dutchboy Farms may not be a sprawling aquaculture operation - but in the niche market it covers, it is king.

Founder John Lambregts is farming tilapia in trout land; the farms are in Idaho, which is the center of trout and rainbow trout farming in the United States. Lambregts farms trout, as well, but mainly for recreational use. The tilapia, however, is shipped live to Seattle and Portland, Oregon, for ethnic

Chinese marketplaces.

"Probably 85 percent of our product gets consumed live by ethnic Chinese in various markets in the US and Canada," Lambregts tells *Fish Farming International*. "The Chinese prefer to [purchase] fish live in the market. We have very long-term relationships with the buyers."

Lambregts, the heart and soul of Dutchboy Farms, grew up in the Netherlands - hence the company's name - got an undergraduate degree at the University of Oregon, a degree from Texas A&M University in agricultural economics and "got the aquaculture bug" during his first job out of college at an Idaho trout farm.

After seven years in sales and marketing for trout processors, the self-described entrepreneur developed a warm spring in Grace, Idaho, and forayed into tilapia in 1998. He "started

small," and around 2005 stumbled into the fingerling business after the farm developed disease problems and "we were looking for a better fingerling."

**"The fish we bring in from [Nam Sai Farms] are far, far superior to anything we can get domestically. And it doesn't hurt that they are cheaper."**

John Lambregts, founder Dutchboy Farms

Lambregts began importing fingerlings from Nam Sai Farms in Thailand and then "a friend said 'would you bring me some in' and then another friend..." he says. "Last month we did 700,000 fingerlings. It's almost a real business."

Nam Sai Farms is one of the largest fingerling producers in the world, Lambregts says, and "the fish we bring in from them

are far, far superior to anything we can get domestically. And it doesn't hurt that they are cheaper." Dutchboy Farms flies them in at 5 weeks and then distributes them.

"We pick them up from one airline and go to another airline and ship them everywhere," he explains.

Companies that do their own sex-reversing use the fingerlings, Lambregts said. For ones that don't, Dutchboy Farms brings in fry and then carries out the process at the farm, shipping them all over North America to these companies afterwards.

### Struggling with trout

While Dutchboy Farms has found its groove in the tilapia industry, it hasn't been so lucky with trout. In the past few years, Lambregts said his company lost three processors as customers - there's now only one processor in Idaho that purchases fish

from independent growers, he says.

"I desperately don't want to go back to processing [in-house] ... so we do mostly recreational trout," he says, adding that the company still has its HAACP certification for processing, but it's "just not the direction we want to take our company."

He prefers to focus commercially on the tilapia - and the company has found "a pretty unique resource" in southeast Idaho. The farm is located near a spring with a flow of about 1,000 gallons a minute and a temperature of 85 degrees Fahrenheit, "which happens to be perfect for tilapia."

The facility uses a single, flow-through raceway system and because of US Environmental Protection Agency (EPA) rules and regulations, deliberately stays below 50 metric tons of production per year. Once that threshold is crossed, Lambregts says, EPA rules



**LEFT:** Graded tilapia ready for the live market.



**TRIAL:** An employee feeds the tilapia by hand during the middle of a feed trial.



**NET:** A dip net used to fish out the tilapia at Dutchboy Farms.



**READY TO GO:** Red Nile and black Nile tilapia fingerlings netted and graded in preparation for bagging for air shipment.

## FACT FILE

**Farm:** Dutchboy Farms  
**Where:** Idaho, United States  
**Species:** Tilapia and some recreational trout  
**Volumes:** 50 metric tons per year  
**Integration:** None  
**Staff:** 6  
**Markets:** Chinese community in the United States



become "difficult" for warmwater farms.

"We choose to stay small as far as pounds produced," he says. "We could easily produce more."

Lambregts employs five staff between the three locations and the area size of the farms are also "very, very small" – less than 2 acres on its tilapia farm.

### Strict disease control

Lambregts proudly says his company's mortality rates are also low after the first 30 days – less than 1 percent. During the sex reversal process, he says, they lose about 25 percent of the fish, "which is pretty standard. After that, we don't really have any significant mortality."

"It's one of the advantages of being in Idaho in a geo-thermal area with no other animals around that have the same diseases," Lambregts explains. "Our biosecurity plan is such that we don't bring in fish from other sources other than

our source in Thailand, we don't allow trucks that have been in other farms on our property—we're pretty conscious about disease control."

Along with having stringent

**"[Low mortality] is one of the advantages of being in Idaho in a geo-thermal area with no other animals around that have the same diseases."**

John Lambregts

standards for disease control, Lambregts said the company also has "some pretty high expectations" for feed. They solely use feed from Integral Fish Foods in Colorado and have a feed conversion ratio of about 1.6 – in the hatchery it's

**"We're producing luxury goods, so that's an item that's very much subject to economic fluctuations. When the economy goes south, our prices are under pressure and our volume is under pressure."**

John Lambregts

closer to 1.0 or 1.4.

As far as stocking density, "in the raceway we go about 2 pounds to 0.7 pounds [0.9-0.3

kilos]." Before shipping, they grow the fish out to about 1.75 to 2 pounds (0.8-0.9 kilos) – but it varies due to Dutchboy's very specific customer base.

"We're dealing with the live markets so they actually demand a variety of sizes," he says. "We've learned over the years that sending them all one size is a bad idea.

[The consumers] like one fish per family – and a family of two versus a family of five need different sizes."

Lambregts has learned that during Chinese New Year and, interestingly, in June, there is more of a demand for the larger fish. Summers in general are slower for Dutchboy Farms, since other species, such as crab, are more readily available.

"We're very, very sensitive to economic fluctuations," says the farmer with the economics background. "We're producing luxury goods, so that's an item that's very much subject to economic fluctuations. When the economy goes south, our prices are under pressure and our volume is under pressure."

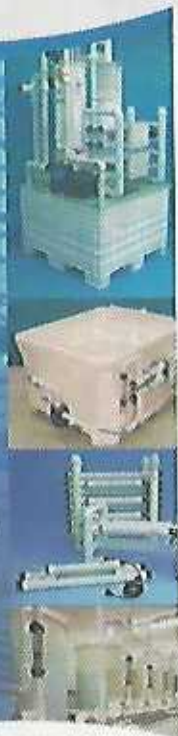
Location ideal, regulations not so much

Lambregts is happy with the location of his farm – as he said before, it's in an ideal tilapia-growing location. The company's real challenge, he

**IMPORTED:** Dutchboy buys fingerlings from Nam Sai Farms in Thailand.

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**SLOW SEASON:** Summers are generally quieter for the farm, when other species like crab are more readily available for consumers.

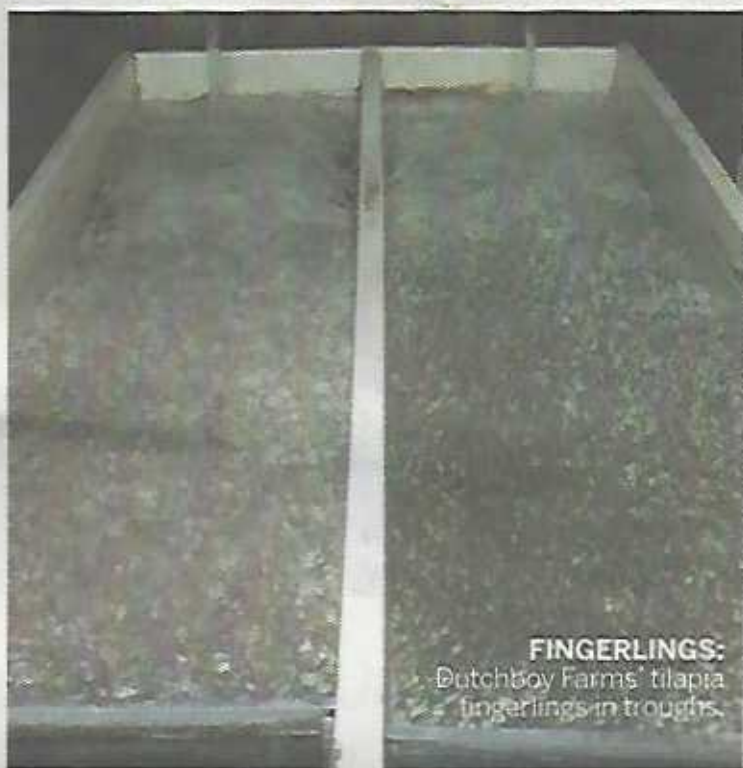
says, is the EPA and its regulations. He's waiting for the state to get new tilapia farming permits in regards to pollution discharges and pollutants — "it was supposed to be done in 2013, it may be later."

"We're again in limbo as far as making adjustments [or growing]," he says. "Because the rules were written for trout, tilapia farming is dissimilar enough that the rules for trout don't work for tilapia. If we're not

sure we can [follow] the regulations, we can't afford to make an expansion."

After he sees the new permit, he will re-evaluate growth, he says. But for now "we're staying nicely below the limit."

**LOADING:** Dutchboy Farms employees load the trucks with tilapia.



**FINGERLINGS:** Dutchboy Farms' tilapia fingerlings in troughs.