



**100%**  
**SUSTAINABLE**  
**SHRIMP FARM**  
**BYE BYE OCEAN FISHING**



# HOW THE SUSTAINABLE SHRIMP™ WAS BORN

The Sustainable Shrimp™ is part of ECO AQUACULTURE ASIA. Eco Aquaculture Asia was started more than a decade ago to rear marine finfish on land for human consumption, with the goals of not polluting the ocean, preventing fish from escaping sea cages and preventing diseases from entering our systems. We did everything with **ONLY ONE THING IN MIND: TO BE SUSTAINABLE**. It was then that we really learned about how much fish and fish meal were used in the aquaculture industry, and realized that something needed to be done to save our oceans from devastation. This was when our mission to become 100% sustainable, and to use **NOTHING OUT OF THE OCEANS** to grow fish started. After we managed this with fish, it was time to change the shrimp industry and **The Sustainable Shrimp™** was born.



## THE SHRIMP INDUSTRY AND ITS BAD REPUTATION

### ANTIBIOTIC RESISTANCE: A GLOBAL HEALTH THREAT

**Antibiotics** such as chlortetracycline, quinolones, ciprofloxacin, norfloxacin, oxolinic acid, perfloxacin, sulfamethazine, gentamicin and tiamulin are used in the shrimp industry, all of which eventually end up in the human body. The use of antibiotics in shrimp affects their efficiency in humans and results in **ANTIBIOTIC RESISTANCE**, a **GLOBAL HEALTH THREAT** of high priority to World Health Organization.



### ESCAPED FARMED SHRIMP POSES THREATS TO NATIVE SPECIES

Non-native species of shrimps that escape into the wild can **IMPACT NATIVE POPULATIONS** by transmitting diseases to, and competing with native stocks for food, habitats and spawning partners. In the United States, for example, escaped **Asian Tiger Shrimp species** from aquaculture facilities may be the culprit(s) for the ten-fold increase in sightings of the invasive cannibalistic species in 2011.

### DESTRUCTION OF MANGROVES, BIODIVERSITY AND LIVELIHOODS

Industrial shrimp farming has been a major cause of **DESTRUCTION OF MANGROVE WETLANDS**. The destruction of mangroves has led to the **LOSS OF BIODIVERSITY**, as well as the **LOSS OF LIVELIHOOD** for millions of people who depended on mangroves. Mangroves are vital for wildlife and coastal fisheries, and serve as buffers to the effects of storms. Salt flats, mudflats, estuaries, tidal basins and coastal marshes can also be affected by shrimp farming.



### ABANDONMENT OF DISEASED AND ENVIRONMENTALLY-DEGRADED SHRIMP PONDS

In many Asian countries, shrimp farmers can't afford liners (usually made of plastic) to cover the bottom of the shrimp ponds. This means that after 3 or 4 years of harvesting, the muddy bottoms of the ponds contain a lot of **BACTERIA**, which become **HOTBEDS FOR DISEASES**. With land not being expensive, it is cheaper to abandon such ponds and start somewhere else with new ponds. Unfortunately, this **IRRESPONSIBLE PRACTICE** has left behind apocalyptic landscapes of **ABANDONED PONDS ALL OVER ASIA**.

# A DIFFERENT WAY OF GROWING OUT SHRIMPS

It's because of all the destructive practices in the shrimp industry that our company, **The Sustainable Shrimp™**, was born. We wanted to show the world that growing **100% SUSTAINABLE SHRIMP**, and doing so in an **ECO-FRIENDLY** way, is possible.

## SO, WE REINVENTED THE SYSTEM AND TECHNIQUE OF FARMING SHRIMPS WITH THE SUSTAINABLE SHRIMP™.

### RECIRCULATING AQUACULTURE SYSTEM (RAS)

By tapping into our creativity and our first-hand experience with **RAS (RECIRCULATING AQUACULTURE SYSTEMS)** with Eco Aquaculture Asia, the link was easily made: if we could invent a recirculating aquaculture system, also known as RAS, with high-tech filtration techniques, combined with the use of UV filters, skimmers, sand filters and ozone, then the water in our system would have the same quality as drinking water (apart from being salty). This would have a massive advantage because, by circulating water, diseases from the ocean wouldn't be able to enter our system. More importantly, having clean water means that the use of **ANTIBIOTICS** is totally **UNNECESSARY**. By farming in closed systems and doing it on land, our shrimp can't escape either.



### ROOFING

All the ponds of **The Sustainable Shrimp™** are covered with roofs, which means that the temperature of the water doesn't fluctuate hugely, or get too hot. This also has a great advantage because transmission of airborne bacteria, or diseases from wild animals is minimized, and this, in turn, **REDUCES THE RISK** of devastating **DISEASES** such as white faeces disease and white spot disease.

### POND LINERS

By using RAS, **The Sustainable Shrimp™** is not dependent on growing out the shrimps in mangroves, or close to the ocean. This means that, unlike traditional shrimp farming systems, our shrimp ponds **DO NOT ENDANGER OUR DELICATE MANGROVE ECOSYSTEMS**. By using RAS and liners, we simply farm our shrimps on land, and don't need to dig deep ponds that would destroy lands. Furthermore, the **PONDS CAN THEREFORE BE REUSED TIME AFTER TIME**, without any impact on the environment at all. The whole system can be removed and taken away at any point, leaving the land virtually untouched.

“AT THE RATE WE ARE (OVER)FISHING THE OCEANS, THE PREDICTION AT THE MOMENT IS THAT THE OCEANS WILL BE EMPTY BY THE YEAR 2040.”

Based on all the points we have discussed, we can confidently say that our shrimp farms check all the points on SUSTAINABILITY.



### BUT HAVE YOU EVER CONSIDERED WHAT FARMED FISH AND FARMED SHRIMP EAT?

Like wild fish and shrimp, **FARMED FISH AND SHRIMP EAT FISH**. Be that in the form of pellets or oil, the feed that they need in order to grow is mostly sourced from wild-caught fish from the ocean. It is an undeniable fact is that the aquaculture industry—the **SHRIMP CULTURE INDUSTRY** in particular—is **DIRECTLY CONTRIBUTING** to the problem of **OVERFISHING** and **EMPTYING THE OCEANS** big time.

# IN-HOUSE 100% SUSTAINABLE FEED FACTORY

## THE PROBLEM FISH MEAL AND FISH OIL USED IN SHRIMP FEED

By the end of 2018, the amount of farmed shrimp had reached almost 4 million tonnes a year. The feed conversion ratio (FCR) for shrimps is about 1.3 kg of feed for 1 kg of shrimp. This means that roughly 5.2 million kilograms of shrimp feed was used in 2018. The percentage of fish meal in 1 kg of shrimp feed is about 40%.

---

**40% x 5.2 million kg = 2.08 MILLION KG OF FISH MEAL USED FOR THE SHRIMP INDUSTRY IN ONE YEAR!**

---

To make this number even worse, do you know that it takes about 4 kg of fish to produce 1 kg of fish meal? Needless to say, the shrimp culture industry is one of the biggest industries destroying our oceans because of its need for fish meal.

## OUR SOLUTION

At **The Sustainable Shrimp™**, we produce our very own fish pellets that go into our fish and shrimp meal. We do this with our pellet production machines and the help of an in-house nutritionist. For many years, we've researched and done feed trials on fish with simply one goal: MAKING A 100% SUSTAINABLE FEED.

As soon as we had that breakthrough with fish, we knew that we could do the same for SHRIMPS as well. It took us another year of R&D and testing before we managed to make a 100% sustainable shrimp feed. Finally, we can honestly and proudly call ourselves **The Sustainable Shrimp™** company.

## WHAT DO WE MEAN BY SAYING OUR SHRIMP IS FED ON A 100% SUSTAINABLE FEED?

By this, we mean that we **DON'T TAKE ANYTHING OUT OF THE OCEANS** to grow our shrimp. There is **NO FISH MEAL** and **NO FISH OIL** used in our shrimp feed pellets. Through all the testing that we have done, we have found a protein replacement from the insect industry known as insect larvae protein meal, which has the same protein level as fish meal. To replace the fish oil and get enough healthy OMEGA 3 into our shrimp, we use algae meal and algae oil instead.

---

It's because we are using these ingredients that we can proudly say that we are one of the rare few who have **CLOSED THE CHAIN OF CUSTODY CYCLE** on sustainable shrimp production.



# WHAT IS SUSTAINABLE?

THE WORD SUSTAINABLE IS USED (INCORRECTLY) BY MANY FARMERS. BUT WHAT DOES SUSTAINABLE REALLY MEAN?

Some farmers call themselves sustainable because they don't use antibiotics; and others call themselves sustainable simply because they farm shrimp in tanks, don't destroy mangroves and don't take shrimps out of the ocean. But luckily, that's not how we do things at **The Sustainable Shrimp™**.



“ FOR THE FIRST TIME IN HISTORY, THERE IS NOW A COMPANY GROWING SHRIMP IN A 100% SUSTAINABLE WAY ”

The good news is that **The Sustainable Shrimp™** has gone a step further to set ourselves apart from the rest in the industry: we are **MORE THAN JUST SUSTAINABLE**. While those who scream out loud that they are sustainable are still using pellets that contain fish meal to grow their shrimps, we at **The Sustainable Shrimp™** are enormously proud to finally be able to offer a **100% SUSTAINABLE SHRIMP FED ON A COMPLETELY FISH-FREE DIET!**

# WHAT VARIETIES OF SHRIMP DO WE GROW?

A SHRIMP FROM THE SUSTAINABLE SHRIMP IS A HEALTHY AND HONEST SHRIMP FOR YOUR BBQ, PLATE OR SOUP.

## VANNAMEI

WHITELEG SHRIMP/KING PRAWN

The most popular species of shrimp for consumption is the VANNAMEI shrimp. The Vannamei is also known as the King Prawn, Whiteleg Shrimp, or Pacific White Shrimp. Its scientific name is *Litopenaeus vannamei*. Due to its high protein content, Vannamei shrimps give a **SWEET, LINGERING TASTE** that keeps people coming back for more. Under ideal conditions, Vannamei shrimps can grow up to a length of 20 cm.

BY THE SIZE, LIVE, FRESH, FROZEN, PEELED WITH OR WITHOUT HEAD.

Shrimps are sold by COUNT PER KILO, which determines their size. We understand that every one of our customers is different, and every customer has different needs; you may like a bigger shrimp on the BBQ than in your soup or salad. We offer shrimps from small to colossal sizes. Below is a rough guide on the approximate number of shrimps you get per kilo. Contact us and together we will find you your perfectly-sized shrimp.

SIZE	APPROX. COUNT PER KILO	AVG. WEIGHT PER SHRIMP
Small	144	7 grams
Medium	102	10 grams
Medium-Large	86	12 grams
Large	67	15 grams
Jumbo	45	22 grams
Colossal	27	36 grams

## MONODON

GIANT TIGER PRAWN/ASIAN TIGER SHRIMP/BLACK TIGER PRAWN

The MONODON shrimp is also known as the Giant Tiger Prawn, Asian Tiger Shrimp OR Black Tiger Prawn because of the 'tiger stripes' on their shells and tails that turn bright orange-red on the barbeque. Its scientific name is *Penaeus monodon*. Tiger prawns can grow up to 25 to 30 cm, almost a third bigger than most shrimps. Their **MOIST, SUCCULENT FLESH** owing to their high fat content has earned them the nickname, the "poor man's lobster".





### **Ao Po Nursery Site and Feed Production**

162/5, Moo 6, Tambon Paklok  
Ampur Thalang, Phuket  
Thailand 83110

### **Rawai Hatchery and Grow-Out Facility**

14/5, Moo 2, Tambon Rawai  
Ampur Muang, Phuket  
Thailand 83130



For any questions, deliveries, answers, consulting or inquiries, please contact:

#### **Frank van der Linde**

✉ [frank@ecoaquaculture.asia](mailto:frank@ecoaquaculture.asia)

☎ +1 707 400 8147

#### **John Bethell**

✉ [john@ecoaquaculture.asia](mailto:john@ecoaquaculture.asia)

☎ +66 8 22753907



[www.thesustainableshrimp.com](http://www.thesustainableshrimp.com)



[facebook.com/thesustainableshrimp](https://facebook.com/thesustainableshrimp)

Check out our fish products at



[www.ecoaquaculture.asia](http://www.ecoaquaculture.asia)