Teora

SCAN FOR WEBSITE

WWW.TEORALIFE.COM

POWERED BY BIOTECH | SUSTAINED BY NATURE | PROVEN IN THE FIELD | FEEDING THE FUTURE.

**Accelerating Global Shrimp Health and Performance Sustainably, Safely, and Biologically with Smarter and Cleaner Feed-Based Disease & Growth solutions.**

## Shrimp Farming feeds the world

Shrimp aquaculture is a **$75 billion** global industry—contributing significantly to global nutrition, supplying the protein that billions rely on and supporting millions of livelihoods.

**However, losses from disease alone cost the industry $6-$20 billion annually.**

**70%**

Of the world relies on animal proteins, of which 33% rely on Aqua proteins.

**61.2%**

of global shrimp now comes from aquaculture.

**Over 40%**

of global shrimp farming capacity is at constant risk due to emerging pathogens.

**PREVENTIVE COVERAGE GAP**

**<1% vaccine coverage**

Traditional vaccines rely on adaptive immunity—the ability to "remember" a disease. Shrimp don't have it—no B-cells, no T-cells, no long-term memory like fish or livestock.

**This makes them vulnerable during**

- MOLTING PHASE
- ENVIRONMENTAL STRESS
- HIGH STOCK DENSITY
- EARLY PATHOGEN EXPOSURE

Even the best farms lose 60-100% of production to disease in 3 to 10 days.

**REACTIVE TREATMENTS FAIL**

Antibiotic use = rising AMR risk & export bans, does not address viral threats

**Poor Health = stressed shrimps, more feed, less weight, higher FCR, lost harvests, Poorer margins.**

**The question isn't "how do we grow more shrimp?"**
**It's "how do we lose less shrimp?"**

Across farming, a massive share of what we grow is lost to disease, inefficiency, and late action. In shrimp, that loss is amplified—because Pathogens move fast. The immune system has no memory. The window to respond is short.

**THIS ISN'T A PRODUCTION GAP.**
**IT IS A PROTECTION GAP.**

**And closing it requires a completely different approach—one built for shrimp biology from the ground up.**

# What If Shrimp Could Be Protected Better ?

Over millions of years, shrimp evolved robust innate immune machinery—fast, built-in defenses that recognise patterns, release antimicrobial peptides, and deploy hemocytes to fight back. **These systems fade and reset on their own—and dip further under stress.**

Shrimp can't "remember" diseases the way vertebrates do. But with the right biological signals, invertebrate immunity can be primed to respond faster, stronger & smarter.

## Inspired By Bees

Scientists discovered something revolutionary: Honeybees and other insects have shown that invertebrates can develop memory-like protection using natural molecular cues and epigenetic "reminders." Colonies become better at handling threats across time—without antibodies, without classic vaccines.

**If bees can be trained to defend better, why not shrimp?**

## This is the heart of our thinking.

Instead of forcing vertebrate medicine onto shrimp, work with what their biology already does well — Prime innate defenses, support them through stress windows, and give farms tools for both readiness and early intervention.

# A biology-first approach to shrimp protection.

## Powered by SOLAQ.

In shrimp, timing is everything.

**Immunity resets fast. while farm stressors and diseases move faster.**
SOLAQ™ uses Nobel Prize-winning breakthroughs breakthroughs in protein modelling and RNA biology to create precise, natural, oral biologics— built for how shrimp actually live, grow, and respond.

Delivered through feed, they act as immune primers or early-phase regulators—supporting shrimp health at the right time, with the right signal, No injections. No stress. No residues.

PRECISION DESIGN

CLEAN MANUFACTURING

FARM-READY STABILITY

### Proven & Tested

Tested in Independent, double-blind lab studies & Real-farm trials across multiple geographies. Trial Report Available upon request

## Precision Design

Our bioinformatics engine scans host and pathogen genomes to identify molecular "switches" that control immunity and growth—enabling fast, precise design of peptide, protein, or RNA-based biologics using advanced synthetic biology.

This allows targeting only intended pathway, immune activation, replication interference, or growth optimisation with high specificity while protecting the microbiome.

## Sustainable Manufacturing

We use Precision Fermentation where food-grade microbes act as "tiny factories" to brew our biologics. It is 100% natural, renewable with zero toxic byproducts.

## Farm-ready stability

Each biologic is micro-coated to survive transport, storage, and digestion—spray-coated onto regular feed with a natural binder for consistent dosing, no texture change, and targeted release. Shelf-stable. No cold chain.

**For farmers, it means immediate adoption, no workflow change, and stress-free delivery.**

SOLUTIONS FOR SHRIMP AQUACULTURE

Shrimp outbreaks don't wait. So SOLAQ biologics for Shrimp disease and health management are designed to support farms in two moments that matter most: **before risk rises** and when pathogen **pressure begins.**

## ShrimpGuard™

Proactive Protective Shield

Broad-spectrum immune-boosting biologic that continuously primes and sustains immune readiness and improves shrimp health.

**Use it to** stay ready **before disease strikes**

## ShrimpTrident

Active Targeted Intervention

Pathogen-specific biologic that rapidly reduces pathogen load, improves immunity and health at early detection — Intervene. Reduce. Stabilise.

**Deploy it to** respond fast **on early detection**

| Higher survival | Stronger Shrimps | Lower Outbreaks | Better Yield | Higher Margins |
|---|---|---|---|---|

**PROACTIVE IMMUNE READINESS**
keeping defenses trained and alert

**RAPID TARGETED INTERVENTION**
acting fast when pathogens are detected

Together, ShrimpGuard™ and ShrimpTrident™ form the first complete, **feed-based immune management system** designed specifically for shrimp biology — Prevent what you can. Respond when you must. Optimize continuously. All through feed.

**Good for Animals, Farmers, Consumers, and the Planet.**

## HOW TO APPLY OUR PRODUCTS

**01**
Calculate ShrimpGuard™ or ShrimpTrident dose based on feed weight.

**02**
Mix ShrimpGuard™ or ShrimpTrident with a binder thoroughly for few minutes.

**03**
Spray top-coat on regular shrimp feed. Let it dry.

**04**
Feed as usual based on ShrimpGuard™ or Shrimp Trident program and watch your stock thrive.

Oral Feed-based format, Works across farm stages.

HACCP, ISO and GMP Certified

Antibiotic, Residue and Chemical free

100% Natural and Biodegradable

Room-Temp Stable. No Cold chain

Scientifically proven, safe, and effective across 10+ Trials

Adaptable & scalable. No infra-structure needed

# ShrimpGuard™

Broad-Spectrum Proactive Protection

ShrimpGuard™ is a first-of-its-kind, feed-based multi-peptide biologic that primes shrimp's innate immunity ahead of risk—to build broad-spectrum resilience against viral and bacterial challenges while keeping immunity stable through stress windows.

- **Help shrimp recognise pathogens faster when they strike**
- **Help shrimp mount stronger and rapid defensive responses**
- **Proactively builds resilience before outbreaks & maintains health + stable growth.**
- **Higher survival in stress windows, Reduces outbreak probability & spread.**

## HOW ShrimpGuard™ WORKS

### 1

### Sense & Prime

Feed-delivered bioactive compounds in ShrimpGuard™ nudge pattern-recognition systems (TLR/lectins)—shrimp "notices" pathogens sooner, mimicking early infection signals without introducing any live or inactivated pathogens.

### 2

### Signal & Mobilise

Triggers key innate immune pathways, increasing immune cell activity and natural antimicrobial molecule production—more immune cells on patrol, faster alarms, tighter control.

### 3

### Act & Defend

Primed shrimp: boosted phagocytosis, AMP release, melanization—the front line respond faster under real disease pressure, limiting spread before losses or visible symptoms occur.

### 4

### Sustained Readiness

Short, targeted feeding programs maintain an epigenetically reinforced immune alertness through high-risk windows, supporting consistent performance.

- Bio-active peptides
- No whole pathogens
- Vaccine Like
- Protection

**Faster response.**
**Fewer outbreaks.**
**Steadier harvests.**

## ShrimpGuard™ HATCHERY

Feed-based immune priming for broodstock and early life stages—supports readiness maternal immune resilience.

Inclusion: 2% (20 g/kg feed) , 5 consecutive days, monthly, Mixed into broodstock feed


Delivered through routine feeding, it helps shrimp stay prepared before pathogens strike, from broodstock and hatchery to grow-out.

Feed-based readiness and health support through stress and disease-risk windows in grow-out stages.

Inclusion: 1% (10 g/kg feed), 3 consecutive days, weekly, Top-dressed on regular feed.

## ShrimpGuard™ GROW-OUT

| | | | | | |
|---|---|---|---|---|---|
| | 100% natural | Microbiome-friendly | No Cold chains | Residue-free | Export Ready |
| | Room-temp stable | Needle-Free | Vaccine-Like Protection | No withdrawal period | |
| | Higher survival | Stronger Shrimps | Lower Outbreaks | Better Yield | Higher Margins |

# Validated In Real-Farm conditions

TESTED IN L. VANNAMEI AND P. MONODON

04+ COUNTRIES 10+ TRIALS

INDONESIA, VIETNAM, INDIA, SINGAPORE

**SURVIVAL RATE**
↑ from 0% → >85%

**MORTALITY REDUCED**
↓ by 52.7%

**PRODUCTIVITY (TON PER HA)**
↑ by 43.8%

**AVERAGE BODY WEIGHT**
↑ to 35.5g vs. 34.9g

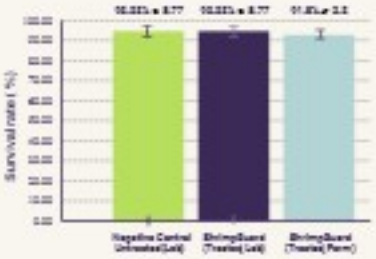
**ABW**
↑ by 131%

**Pathogen load non-detectable by Day 17**

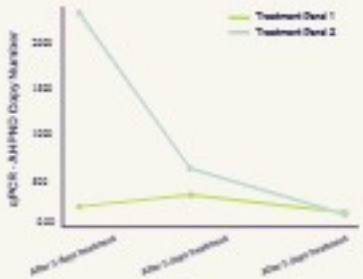
**No Negative Impact on FCR, feed behavior, or water quality**

* Complete trial results available on request.

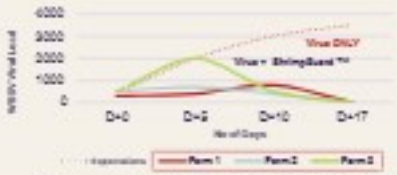
Efficacy assessment of ShrimpGuard™ ( Viral)



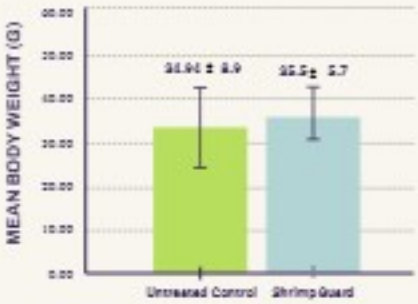

Efficacy assessment of ShrimpGuard™ ( Bacterial)

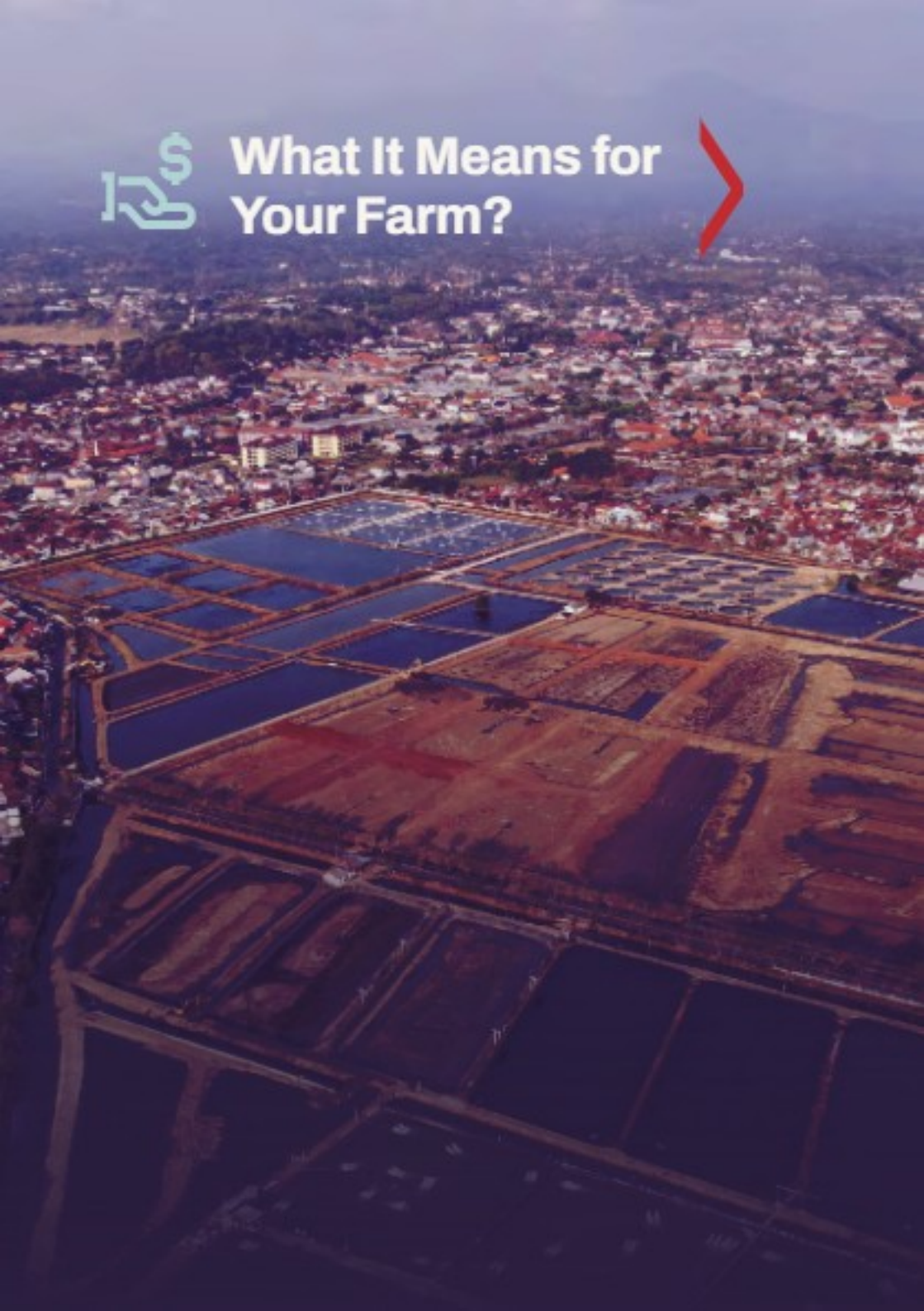



**Viral Load Reduction– Field Trials**
**Pathogen Genome Copies Over Time**




As observed at farms that had natural infection of WSSV, and ShrimpGuard was used.





# What It Means for Your Farm?

## With ShrimpGuard™

Fewer mortalities → More harvests

Cleaner shrimp → Better prices

Less stress → Healthier ponds

No antibiotics → No rejections

# ShrimpTrident

## Pathogen-Specific Early-stage Intervention

A feed-integrated, multi-peptide or RNAi based oral biologic designed to Intervene early before pathogen pressure rises across hatchery and grow-out stages—built for rapid response, reduce pathogen replication, support immune defense, and protect overall harvest performance.

**Pathogen-specific response—ensuring precise, effective immune support.**

**Rapid impact, faster recovery & Proven to reduce pathogen load.**

**Protects yield, reduces mortality, helps maintain harvest quality, size, and productivity.**

**Administered at first signs of infection to limit spread, reduce mortality & safeguard harvest potential at risk**

# Outbreaks move fast. ShrimpTrident helps you act faster.

Because fast-replicating viruses and bacteria often outrun the innate immune response in high density environment, and the window for action is short.

**Even minor delays in action lead to massive survival losses and pond collapse.**

## WITHOUT EARLY INTERVENTION

- Shrimp immune systems are too slow to control fast-replicating pathogens.
- Mortality rises sharply within days
- Entire ponds can be lost in 3–10 days depending on pathogen virulence

## ShrimpTrident steps in when:

- PCR-CONFIRMED INFECTION IS DETECTED
- CLINICAL SIGNS BEGIN TO APPEAR
- A NEIGHBOURING POND IS AFFECTED
- EARLY DISEASE BUT IS NOT YET SPREAD

## HATCHERY AND NURSERY

Pathogen specific early stage intervention to protect juvenile shrimp during vulnerable development phases.

**INCLUSION: 1% (10 G/KG FEED)**

Packaging: 1kg, 5kg, 20kg options

## GROW OUT STAGE

Early stage intervention & extended protection in grow-out ponds, critical to preventing losses due to outbreaks.

Daily, mixed with all meals., min 15 days, extend as needed until harvest in high-risk ponds, consult specialist.

## HOW SHRIMPTRIDENT WORKS

# 1

### Detect & Confirm

Pathogen signs are detected early on-farm—via qPCR, clinical cues, or drop in feeding.

ShrimpTrident is timed for this window—before clinical spread escalates.

# 2

### Target & Activate

Depending on the pathogen, ShrimpTrident activates one of two biological mechanisms:

- RNAi → Silences virus replication (e.g., IMNV, WSSV)
- Multi-Peptide → Slows pathogen progression, reinforces pond resilience (e.g., Vibrio, EHP)

**Shrimp Trident variants are delivered cleanly through feed—no injections, no handling stress.**

# 3

### Intervene & Stabilise

ShrimpTrident compounds work systemically:

- **RNAi binds** viral RNA, reducing replication load
- **Peptides modulate** immune effectors, support epithelial & gut integrity

Shrimp hold performance longer—even under pathogen pressure.

# 4

By lowering pathogen activity and supporting defense, ShrimpTrident helps:

- Limit spread
- Protect survival
- Maintain feed efficiency

All through **timely, stress-free intervention** during critical windows.

**FAST, TARGETED BIOLOGICAL CONTROL**

**Lower pathogen pressure steadier survival, and protected performance.**

## SHRIMPTRIDENT MYO Juvenile + Grow-Out

A feed-based RNAi biologic designed to trigger shrimp's innate gene-silencing machinery (Dicer, RISC complex), impeding viral replication, thus, helping shrimp survive and recover from early-stage IMNV (Infectious Myonecrosis Virus) infections.

## SHRIMPTRIDENT SPOT Juvenile + Grow-Out

A Feed-based RNAi biologic designed to regulate gene expression to halt viral replication and provide early-stage immune support against WSSV (White Spot Syndrome Virus).

## SHRIMPTRIDENT VIB Juvenile + Grow-Out

Feed-based Multi Peptide biologics to combat bacterial infections and disrupt virulence factors or critical pathways, blocking AHPND (Vibrio) progression and reducing the need for antibiotics.

## SHRIMPTRIDENT EHP Juvenile + Grow-Out

Feed-based Multi Peptide biologics to combat bacterial infections and disrupt virulence factors or critical pathways, blocking Enterocytozoon hepatopenaei progression and reducing antibiotic usage.

**CUSTOM SOLUTIONS AVAILABLE ON REQUEST**

| | | | | | |
|---|---|---|---|---|---|
| 100% natural | Microbiome-friendly | No Cold chains | Residue-free | Export Ready | |
| Room-temp stable | Chemical - Free | No Antibiotics | No withdrawal period | | |
| Higher survival | Stronger Shrimps | Steadier Harvest | Better Yield | Higher Margins | |

# ShrimpTrident Myo Validated in Real-farm conditions

**04+ COUNTRIES 10+ TRIALS**

**INDONESIA, VIETNAM, INDIA, SINGAPORE**

**TESTED IN L. VANNAMEI AND P. MONODON**

**SURVIVAL RATE**
↑ from 82% → 90.7%

**MORTALITY REDUCED**
↓ by 52.7%

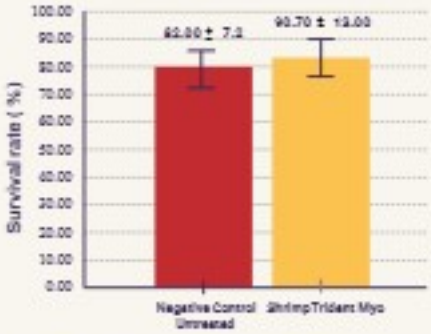
**BIOMASS GAIN**
↑ by 43.8%

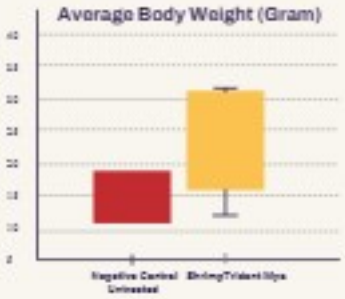
**AVG DAILY GROWTH**
↑ by 55%

**ABW**
↑ by 131%

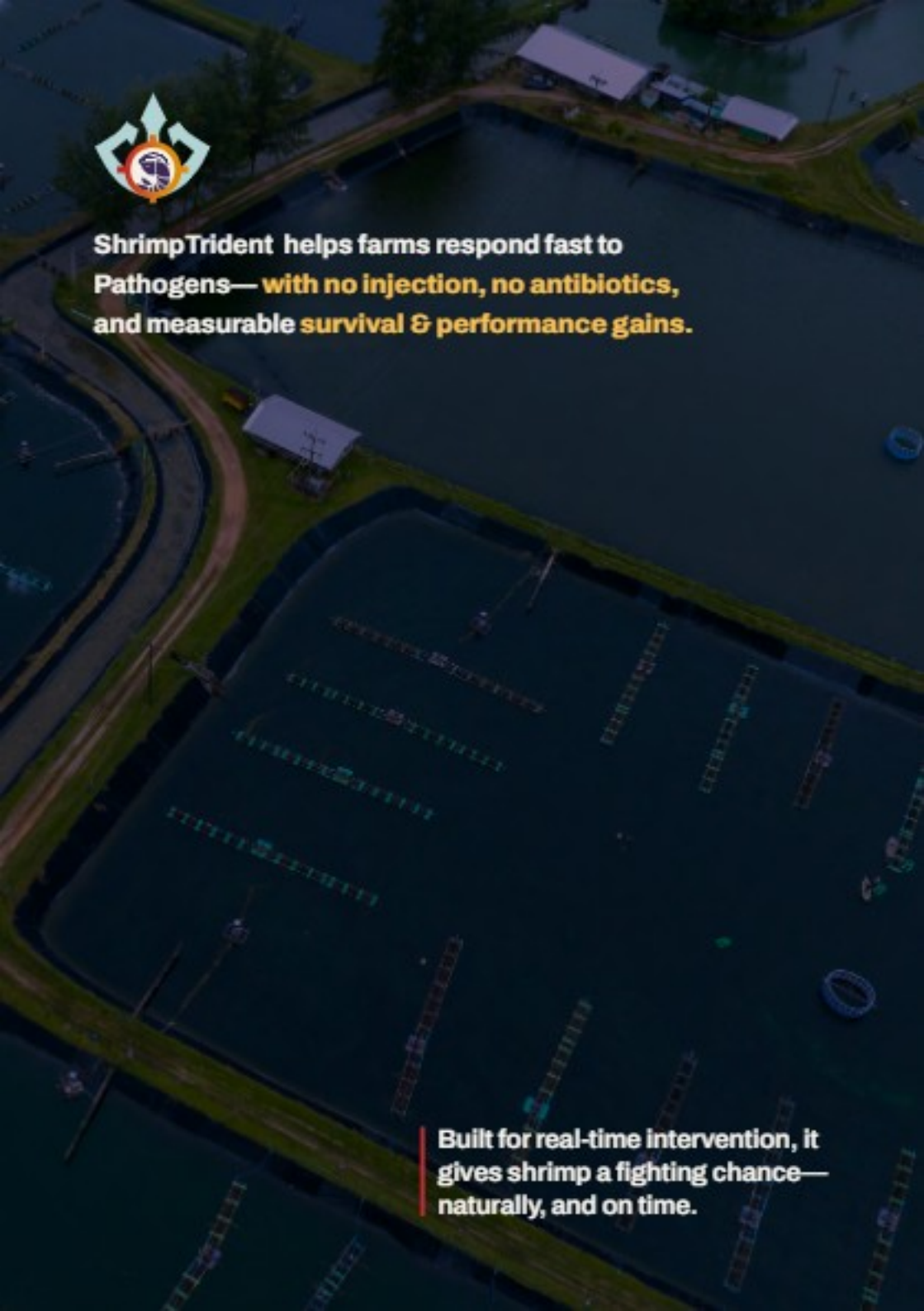
**IMNV viral load undetectable by Day 15**

**Muscle recovery observed in treated shrimp**




* Complete trial results available on request.



**ShrimpTrident helps farms respond fast to Pathogens— with no injection, no antibiotics, and measurable survival & performance gains.**

**Built for real-time intervention, it gives shrimp a fighting chance— naturally, and on time.**

# Clean feed-based disease and health management solutions for shrimp farming by Teora

| Product Line | Use case | Variant | Target Pathogens |
|---|---|---|---|
| ShrimpGuard™ | **PROTECTIVE SHIELD** Broad-Spectrum, Feed-Based Immune Biologic for Proactive health, Early priming, Continuous immune readiness and disease resilience : *Use proactively, before disease stress windows.* | ShrimpGuard™ Hatchery For Broodstock & PLs | Broad-spectrum- for both viral and bacterial infections in shrimp farms |
| | | ShrimpGuard™ Grow-Out From Nursery to harvest | Broad-spectrum- for both viral and bacterial infections in shrimp farms |
| ShrimpTrident | Pathogen specific portfolio of precision feed based biologics that activates disease intervention, rapidly reducing pathogen loads enhances immunity and survival in shrimp farms at early detection : *Use immediately after early detection or lab confirmation of disease.* | ShrimpTrident MYO Juvenile + Grow-Out | IMNV (Infectious Myonecrosis Virus) |
| | | ShrimpTrident SPOT Juvenile + Grow-Out | WSSV (White Spot Syndrome Virus) |
| | | ShrimpTrident VIB Juvenile + Grow-Out | Vibrio spp. |
| | | ShrimpTrident EHP Juvenile + Grow-Out | EHP (Enterocytozoon hepatopenaei) |
| Custom Solution | Custom pathogen specific solutions and protocols can be developed. | Available on Request | Mixed pathogen risk depending on your farm challenges. |


**This isn't just about saving shrimp—it's about saving livelihoods, securing farming systems, and building a sustainable future for aquaculture.**

Our goal is simple—to future-proof farmed food production without sacrificing sustainability, profitability, or global health.

1

## FIRST RIPPLE: FARMERS

- Income can double through higher survival; costs drop as you move away from expensive unsustainable health solutions
- No export rejects
- Less waste due to disease losses

2

## SECOND RIPPLE: CONSUMERS

- Antibiotic-free protein
- Chemical free Food
- Traceable, safe food
- Nutritious, clean eating

RIPPLE

**Disease, Health And Growth Solutions Available For**

Shrimp Aquaculture
Fish Aquaculture
Livestock
Poultry
Crop Agriculture
Companion Health

3

## THIRD RIPPLE: PLANET

- Less chemical runoff
- Biodiversity restored
- Carbon footprint reduced
- Water systems cleaned

4

## FOURTH RIPPLE: HUMANITY

- AMR crisis averted
- Less Farmer suicides
- Many lives saved
- Food security achieved
- Food safety-Future protected

EFFECT

**PARTNER WITH TEORA TO**

Save billions in annual disease losses

Prevent AMR deaths & Produce clean

Feed 10 billion people sustainably

Create the future of farming profitably

# Also Available: Feed-Based Biologics for Fish Health.

- Viral, Parasite & bacterial disease support
- Broad Immune readiness across species
- Enhanced Growth performance naturally

Validated across multiple finfish species including Tilapia, Seabass, Trout, Salmon and others.

**Request the Full Aquaculture Product Brochure Email us : Rishita@Teora.life**

We don't need more. We need to lose less, waste less, treat less, and grow smarter.

**Company Name :**
Teora Pte Ltd

**Company Address**
8 Cleantech Loop, Cleantech 3
Building, Block E, #05-72
Singapore - 637145

Teora

SCAN FOR WEBSITE

www.Teoralife.com

+65 - 83572479

Rishita@Teora.life

**No matter your size, sector, or species—if you're farming and feeding, we're ready.**

@Teoralife