

EXELAOS AQUA CULTURE INC.

GOOD FARM PREVENTION

AV81[©]



A REVOLUTINARY 100% CHEMICAL FREE ,NATURAL AND ORGANIC AND
FOR WIDE SPECTRUM OF ANTIMICROBIAL ELIMINATION

THE LATENT OPPURTUNITY

“We stand on the edge of a great sea of possibilities, with the right gizmo we can skim through it or without them remain on the shore wondering what opportunities may have been missed”

There is an obvious and growing need to farm shrimp in a responsible, sustainable, traceable, and low environmental impact manner which can enhance biosecurity (pathogen control), and help protect the environment, whilst producing shrimp in a cost efficient manner

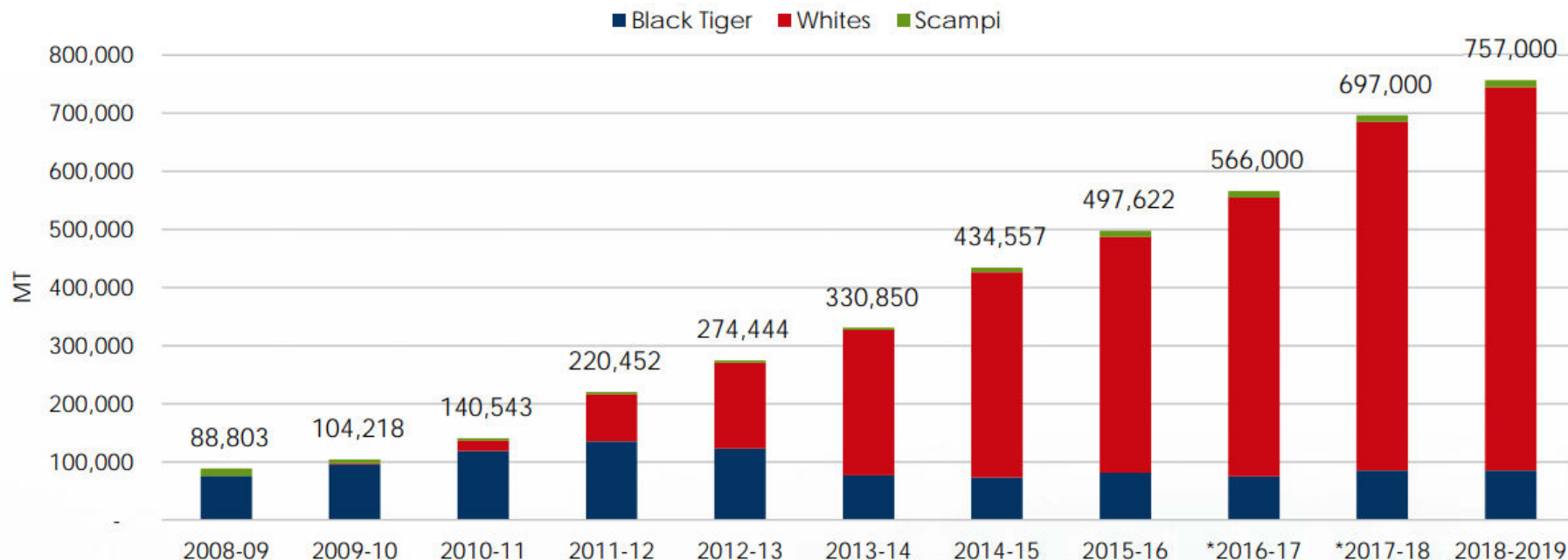
Global Market



- ❑ United States consumes over 556,000 tons per year, wild capture and farmed shrimp fill <6% of demand.
- ❑ Market demand in Europe is increasing and elsewhere.
- ❑ China is now net shrimp importer
- ❑ Ecuador now exports majority of production to China.
- ❑ There is very limited land left to exploit.

India

Indian Farmed Shrimp Production (Head-On Weight)



Source: Indian Government Data; * Panel estimates



The Condition....



- ❑ Shrimp is an ideal substrate for microbial growth due to high protein and free amino acids and poor in connective tissue
- ❑ In Asia, the average intensive farm has been found to survive for only 2-5 years before serious pollution and disease problems cause early pond closures due to overstocking and indiscriminate use of low quality feeds, antibiotics, and water additives
- ❑ Over half of the shrimp ponds in Thailand (where 85% of the production systems are intensive) have shutdown within the first decade of operation due to the reasons above

The Economic Impact.....



Poor Pond Management Practices

Poor Water Quality

Poor Pre & Post Preventive Measures

Disease Out Break in Shrimp Pond

Horizontal Transmission

Vertical Transmission

Impact

Poor FCR

Poor Yield & Loss to the Farmer

The Adverse Effects...

- ❑ The possible hazards from the use of antibiotics, including the possible paths of development of resistance are intertwined and complex
- ❑ These substances can potentially have adverse effects on the shrimp farming system, e.g. through development of resistance among shrimp pathogens
- ❑ The incidence of infectious diseases in shrimp aquaculture is a serious problem due to the overuse or misuse of antibiotics and antibiotic resistance genes among opportunistic pathogens such as *Vibrio species*
- ❑ All of the above synthetic chemicals can have adverse side effects on human body and repeated use of them can create a great possibility of “Superbug”

THE FEAR OF SUPERBUG.....

- ❑ Although the Canadian Food Inspection Agency (CFIA) does not allow for the use of any antibiotics in shrimp farming
- ❑ The overuse of antibiotics in Asian shrimp aquaculture has some researchers concerned about the potential for antibiotic-resistant bacteria landing in Canada through imported seafood
- ❑ **Shrimp containing antibiotic-resistant bacteria found in Canadian grocery stores-CBC News 15TH March, 2018**
- ❑ Antibiotic resistance has been called one of the biggest threats to global health by the World Health Organization

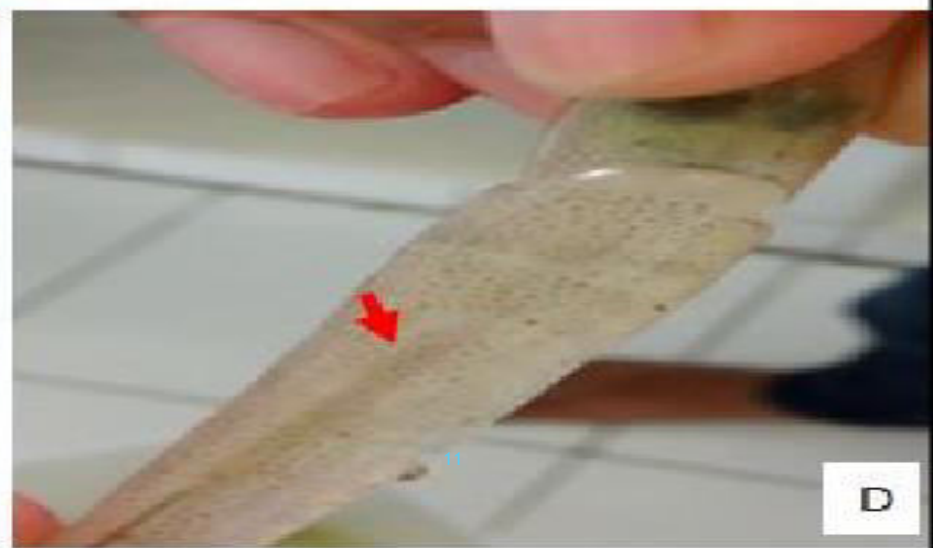
Prevent Microbial Infections in Shrimp by Natural and Effective way

The answer is timely use of AV81 which 100% safe and effective in elimination of wide range of microbial activities besides it is being organic, natural and non toxic to both “Shrimp and Humans”

The Spread of Disease.....

“Once one pond is infected with the virus, there is little the farmers can do given the very high risk of nearby ponds getting infected a few days later”.....It only takes two or three days from detecting the first infection for all shrimp in the pond to be killed

- ❑ Almost all shrimp pathogens are transmitted vertically (but usually not transovarially) and disease is the result of a massive viral amplification that follows exposure to various forms of environment or physiological stress
- ❑ Stressors can include handling, spawning, poor water quality or abrupt changes in temperature or salinity
- ❑ Shrimp viruses can also commonly be transmitted horizontally and, once viral loads are high and disease is manifest, horizontal transmission of infection is accompanied by transmission of disease
- ❑ The third significant characteristic is a logical consequence of the former two in that shrimp commonly can be infected simultaneously or sequentially with multiple viruses or even different strains of the same virus



Grievous Issue One Answer

“AV 81” Prevention is the best cure
Most Proven Antimicrobial For Wide Spectrum
of Viral Treatment in Shrimp Aquaculture

AV81 -A BIOSECURITY PROVIDER WITHOUT HAVING FEAR OF SUPERBUG

- ❑ With the intensification of shrimp farming, biosecurity has become increasingly important
- ❑ Quarantined broodstock, certified specific pathogen-free (SPF) nauplii and disinfected water and hatchery materials are recommended as good biosecurity practices.

WHAT IS AV 81?

- ❑ AV 81 is a pure natural, organic and plant based product developed to neutralize up to 100%; almost all types of bacteria, fungi and viruses in aqua culture
- ❑ It is a highly water soluble liquid having PH 5.5.
- ❑ Eco-friendly and 100% safe for all form of aquatic animals
- ❑ It starts neutralizing pathogens within 5 minutes and gets ponds totally free from almost all kinds pathogens (virus, bacterial and fungi) present in the pond
- ❑ 0.5 to 1.5 ppm dosage required depending upon the viral or bacterial colony present in the pond

Features....

- ❑ Wide spectrum of antimicrobial activity
- ❑ Zero toxicity
- ❑ High Penetrability
- ❑ Activity in the presence of Pus and necrotic tissue
- ❑ Non interference with surroundings
- ❑ Cost effective, non corrosiveness & non staining ability
- ❑ Higher degree of stability
- ❑ The ability to penetrate the crevices, cavities and films of organic matter and maintain lethal concentration of the agent so that cidal effect can be obtained in the presence of organic matter such as soil and fecal material.

Why Av 81?

- ❑ In future, as natural fish stocks are getting depleted, it is likely that we will have to rely increasingly on aquaculture for the production of fish and crustaceans for human consumption
- ❑ Therefore, it is important that the sustainability of this industry is maintained by improved aquaculture practices coupled with the more effective use of **AV81** along with other biological agents in order to improve survival rate and growth, to enhance yield and to minimize production cost
- ❑ An ultimate solution to avoid “ Superbug”

ADVANTAGES OF AV 81

An Ultimate Solution to Eliminate Wide Range of Microbial Infection

- ❑ It is a very strong natural and organic antimicrobial, antifungal and antiparasitic in shrimp aqua culture
- ❑ Very low non frequent doses required for any kind of infected shrimp pond
- ❑ Zero AMR(**Antimicrobial Resistance**)
- ❑ Shrimp survivability >85% as viral elimination rate of AV 81 is 100%
- ❑ Biosecurity – it prevents introduction of pathogens and eliminates the need for chemicals and antibiotics
- ❑ Improves mineralization and oxygen levels in pond
- ❑ Reduces BOD and COD
- ❑ AV 81 is tested and validated
- ❑ It makes shrimp production sustainable, profitable and ecofriendly
- ❑ **No fear of having “Superbug Threat “ as found with other antibiotics used in shrimp framing**

Results

Our Focus Segment for Evaluation of AV 81

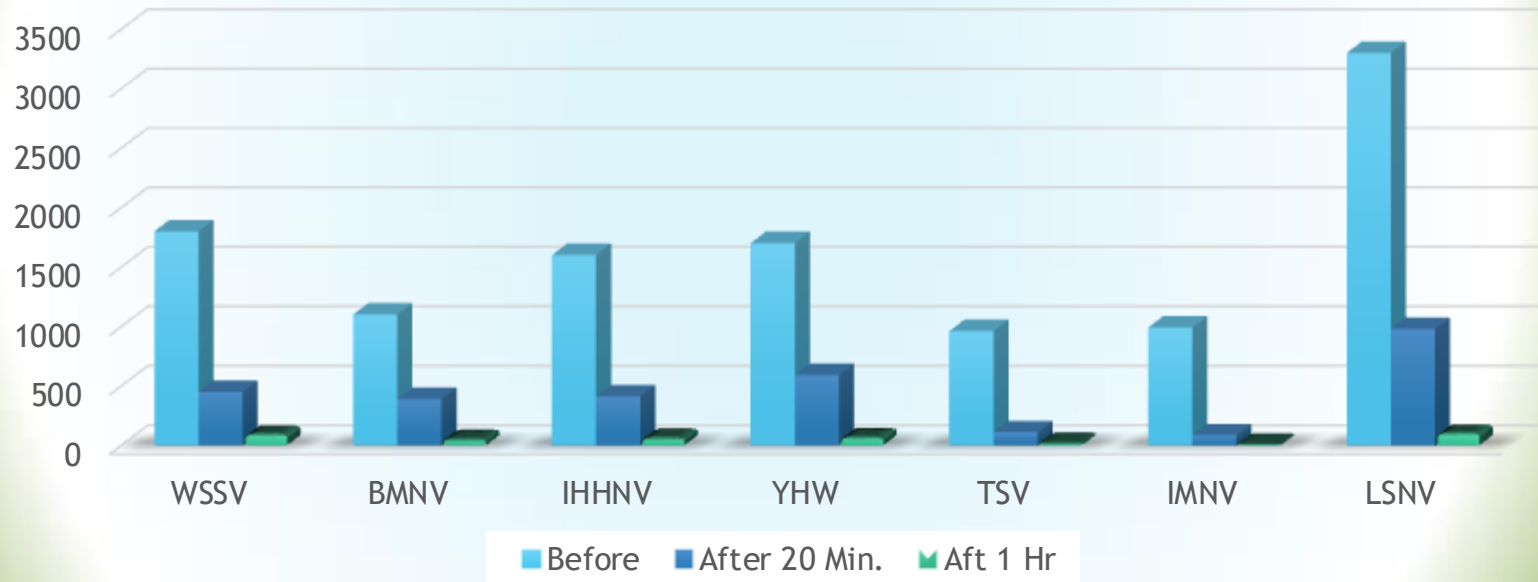
- ❑ New or previously unknown diseases;
- ❑ Known diseases appearing for first time in a new species (expanding host range);
- ❑ Known diseases appearing for the first time in a new location; or with different signs having higher virulence due to changes in the causative agent

Diseases in particular are a major constraint for the sustainability of shrimp production in many countries





Evaluation of AV 81 Neutralization Efficacy on Some of the Viral Infected Shrimp Ponds Water Samples, Rural Surat, Gujarat. India

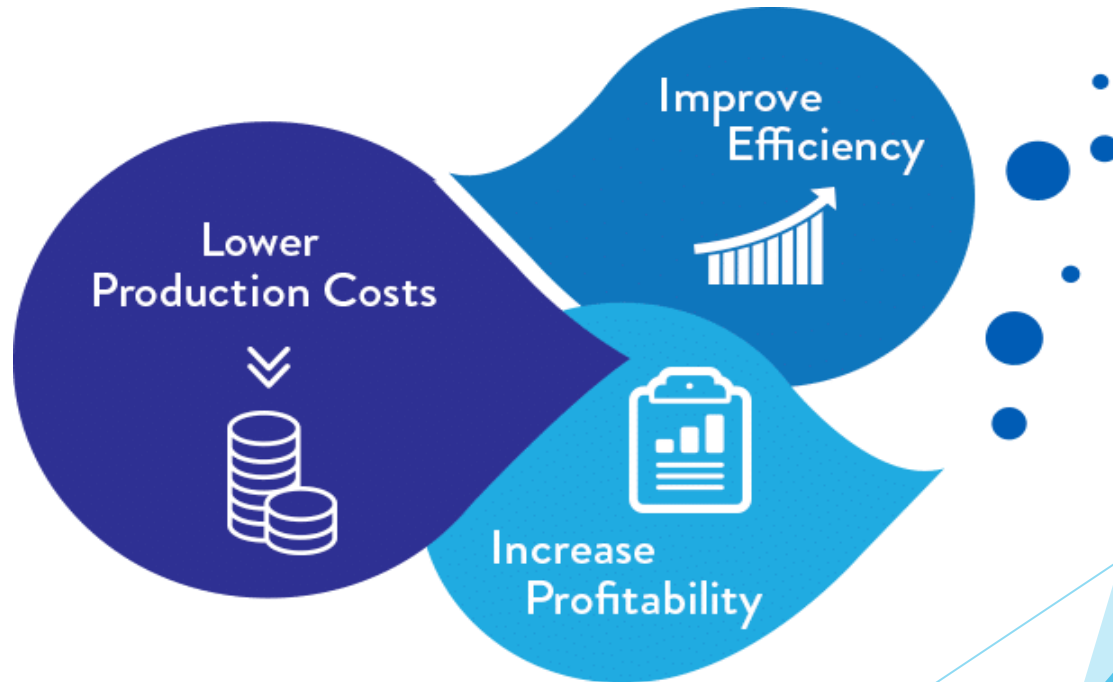


Field Trail Observations....

Virus Type	Location of Sample	Dose AV 81/1000 L	Initial Count Before	After 30 min	After 1 hr
WSSV	Gujarat	1ml	1298	250	30
HPV	Goa	1ml	1500	100	10
YHW	Gujarat	1.2ml	1800	400	90
MBV	Thailand	1.3ml	1400	300	100
TSV	Kerala	1.2 ml	1000	400	90
LSS	Orissa	1.3ml	1100	500	120
LSNV	Indonesia	1ml	3200	700	150
MSGs	Philippines	1.2ml	1700	400	110
BMNV	Philippines	1ml	1200	300	80

Economic Advantages.....

Very Low Cost and 100% Effective Viral Treatment



Contact Us for Further Details

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