

# Experiencias Globais na Prevenção de Enfermidades na Produção de Camarão

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Global Product Manager Aquaculture Health

Adisseo

- Who we are & what we do?
- Health Feed additives application around the world



# Adisseo, a leader at the heart of the food chain





# Key Figures

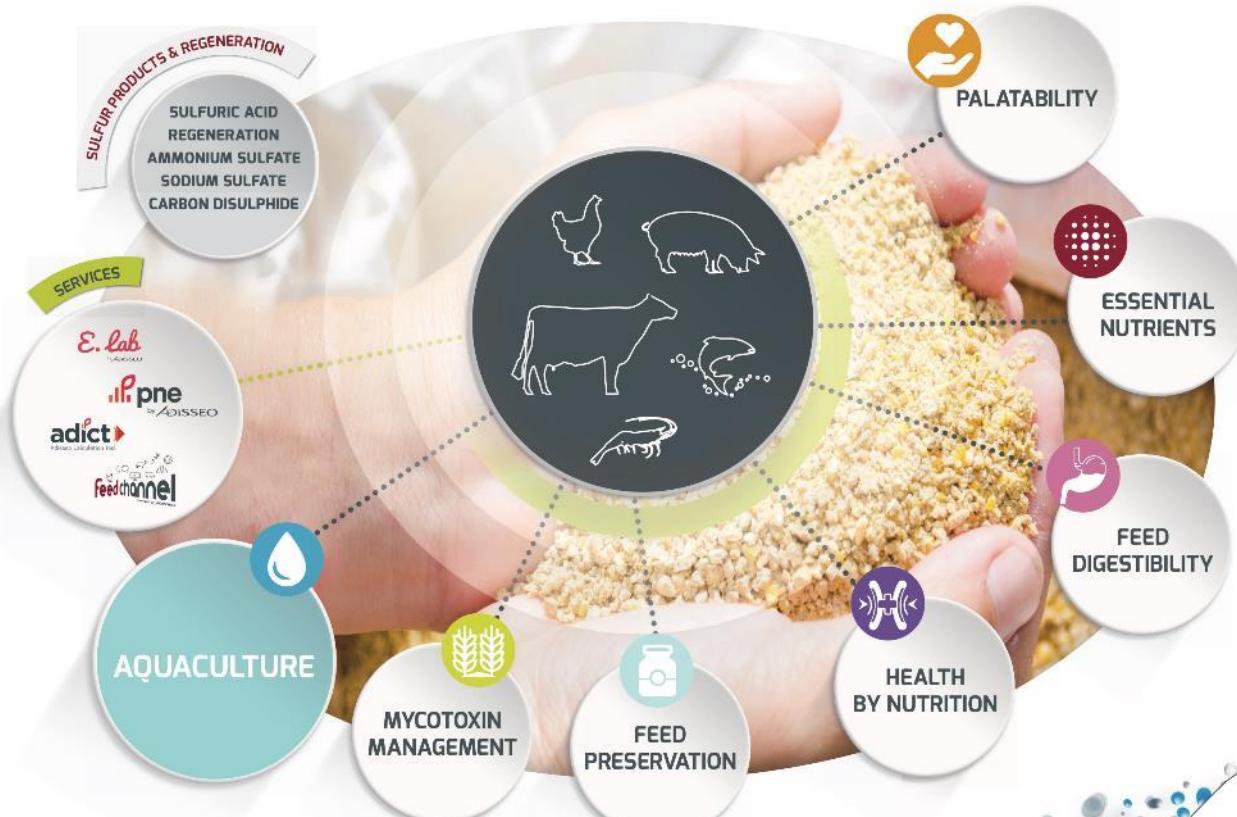


# Our Industrial Footprint

(from West to East)



# Solutions & services for our customers



# Heritage of ADISSEO's BU Aquaculture



1997

## INVE Aquaculture: Premixes & concentrates for aquafeed

- pioneering concepts in aquaculture nutrition & health (future “specialties”)
- hands-on approach aquafeed formulation & processing, feedmill / integrator projects



2009

## INVE Nutriad: Aquaculture additives

- merging INVE Aquaculture and Nutriad additive portfolios for aquafeed

2011

## Nutriad International: Startup BU Aquaculture

- creation of global BU Aquaculture to steer product development, customer service and sales



2018

## Acquired by Adisseo: Roll out BU Aquaculture

- global leader in feed additives
- global/local BU Aqua expansion
- merging/expanding Adisseo and Nutriad product portfolios
- accelerating innovation



# The challenges in aquaculture require a specific Aqua Strategy

## KEY CHALLENGES

- Young
- Complex
- Fragmented
- High-value niche market
- Major challenges in health & nutrition increasing demand for specialized feed additives



## AQUA STRATEGY

- Species-specific Product Strategy
- Species-specific Technical Services
- Species-specific Innovation and R&D





# BU Aqua 2020: Global/Regional Aqua Expertise

The image displays a world map background with continents in light blue. Overlaid on this map are 15 professional headshots arranged in a grid. Each headshot is contained within a blue-bordered box, and below each box is a name and title. The grid is organized into three rows and five columns.

Peter Coutteau BU Director	Sam Ceulemans Global Scientific & Technical Mgr	Alexander van Halteren Global Commercial Mgr	Maria Mercé Isern Subich Global Product Mgr Aqua Health	Marleen Dehasque Global Product Mgr Aqua Nutrition	Waldo Nuez Ortin Lead Scientist	Manon Quintin Marketing Specialist
Gilberto Hernandez Regional Mgr LA1	Thiago Ushizima Regional Mgr LA2	Michalis Tzouramanis Regional Mgr S-EU	Ismail Youssef Regional Mgr MEA1	Kaan Ozakcan Regional Mgr MEA 2	Goud Dhanunjaya Regional Mgr INDIAN SC	Allen Gao Regional Mgr CHINA
Allen Wu Regional Mgr APAC	Huynh van Lanh Sales Mgr Vietnam	Chatirot Intaraska Sales Mgr Thailand & Myanmar	Guiping Zhao Regional Tech Mgr China	Martin Guerrin Regional Tech Mgr APAC/ISC	Martha Mamora Farm Application Mgr APAC/ISC	





# AQUACULTURE HEALTH SOLUTIONS

## ADISSEO AQUA



### PREVENTIVE

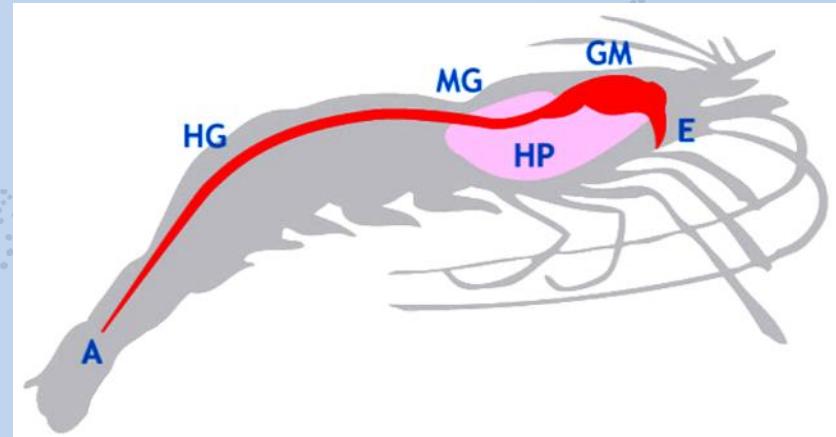
- Action starts before the problem
- Cost of the treatment & monitoring
- Increase productivity & Increase profitability
- **Reduce disease risk & outcome**

Health, profits

# THE POWER OF GUT HEALTH

Promoting gut health to improve:

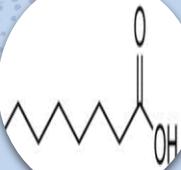
- ✓ **Performance** = a functional gut is key for optimal digestion and absorption (growth, FCR)
- ✓ **Survival** = gut is main entry port for infections and has a very important role in immune development



# ADISSEO FUNCTIONAL FEED ADDITIVES

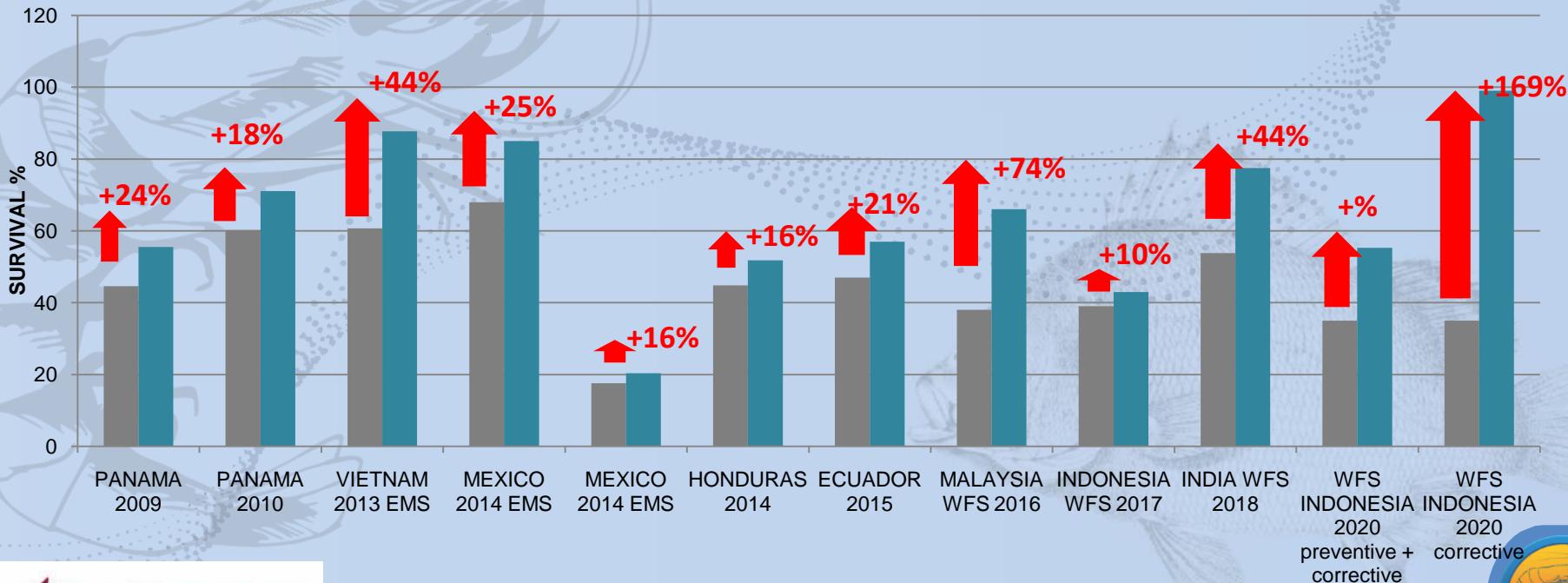
SANACORE®  
GM

BACTI-NIL®  
AQUA



# GLOBAL EXPERIENCES

## FIELD trials





# FARM TRIAL #1 : Northern P. Malaysia



# FARM TRIAL #1 : Northern P. Malaysia

- ✓ Penang, Northern Malaysia
- ✓ History of area : **WSSV, EMS, WFS**
- ✓ Size of ponds : 0.4 Ha
- ✓ 2 control vs 4 treatment ponds
- ✓ Stocking density : PL 10-12, 110pcs/m<sup>2</sup>
- ✓ Preventive and corrective application  
(low and high dose of SANACORE GM applied)





**ADISSEO**  
A Bluestar Company







# FARM TRIAL #2: Northern Jakarta, Indonesia

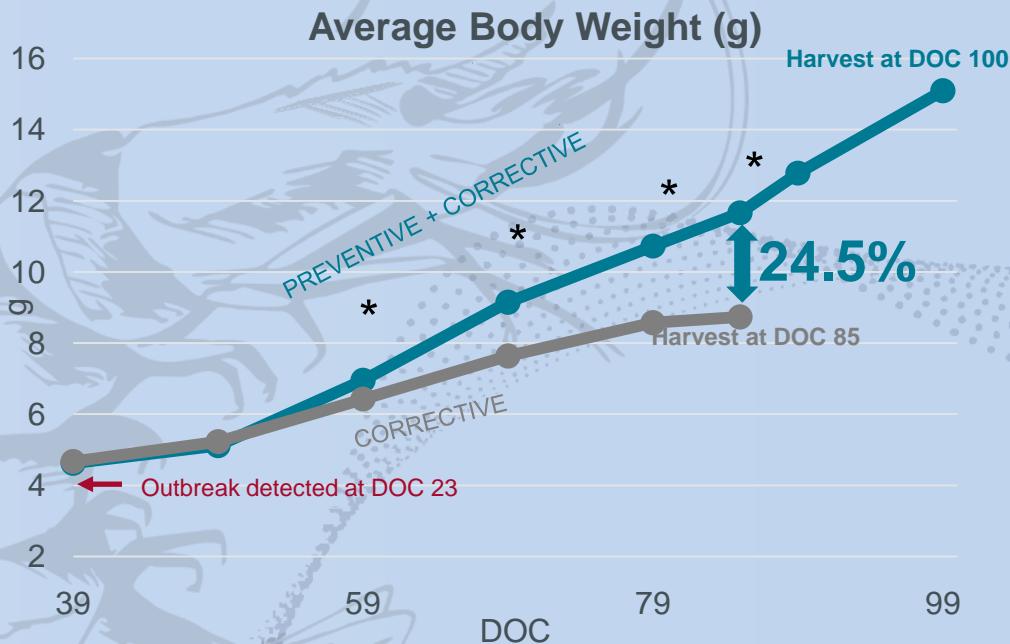


# FARM TRIAL #2: Northern Jakarta, Indonesia



- ✓ Subang-Karawang, Indonesia
- ✓ History of area : **WFS, IMNV and WSSV**
- ✓ Failure of previous 2 cycles
- ✓ PL 10-12; Density of 100 pcs/m<sup>2</sup>
- ✓ 3000m<sup>2</sup> ponds
- ✓ 3 control vs 3 treatment
- ✓ Preventive and corrective application (low and high dose of SANACORE GM applied)

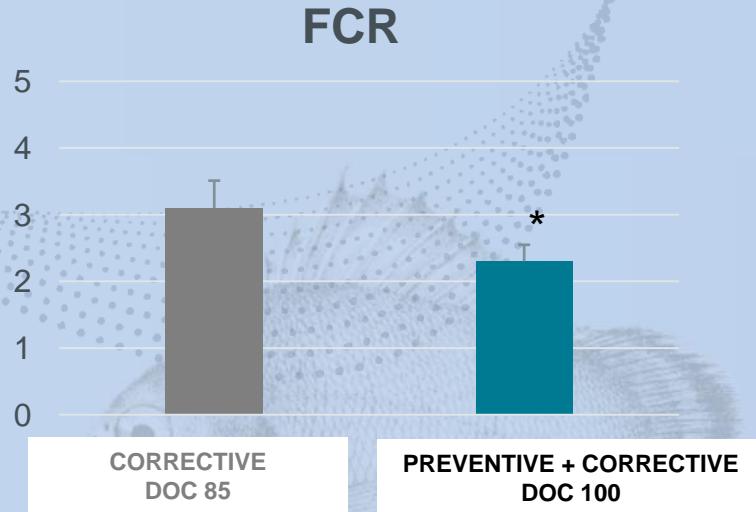
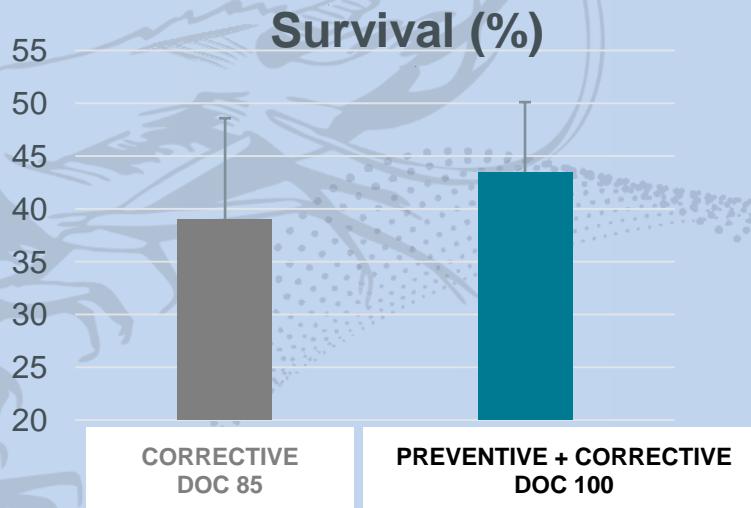
# FARM TRIAL #2: Northern Jakarta, Indonesia



- Improved ADG recovery after the outbreak (25% better at DOC 85)
- Full harvest of control ponds at DOC 85 due to stunted growth

\* denotes significant difference from control ( $p<0,05$ )

# FARM TRIAL #2: Northern Jakarta, Indonesia



\* denotes significant difference from control ( $p<0,05$ )



# FARM TRIAL #3 : Odisha, India

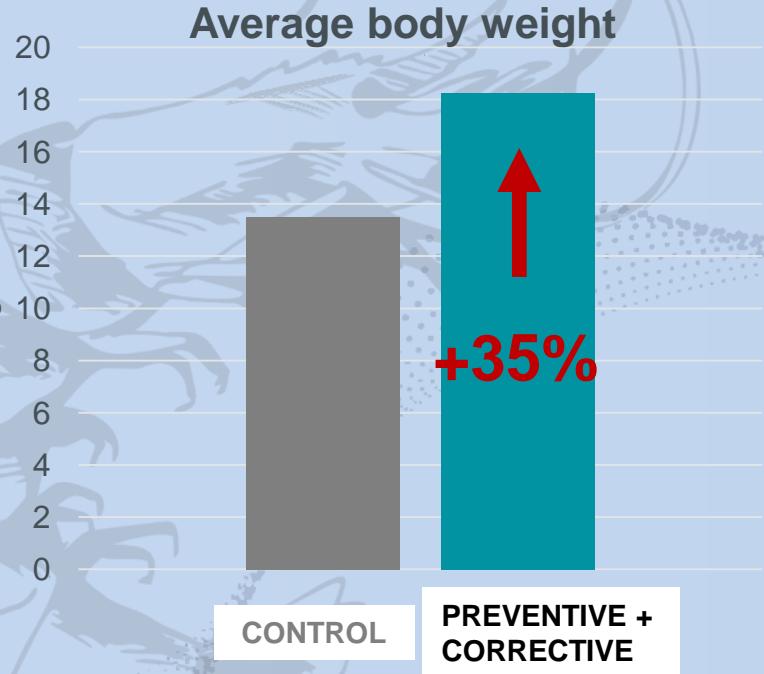


# FARM TRIAL #3 : Odisha, India

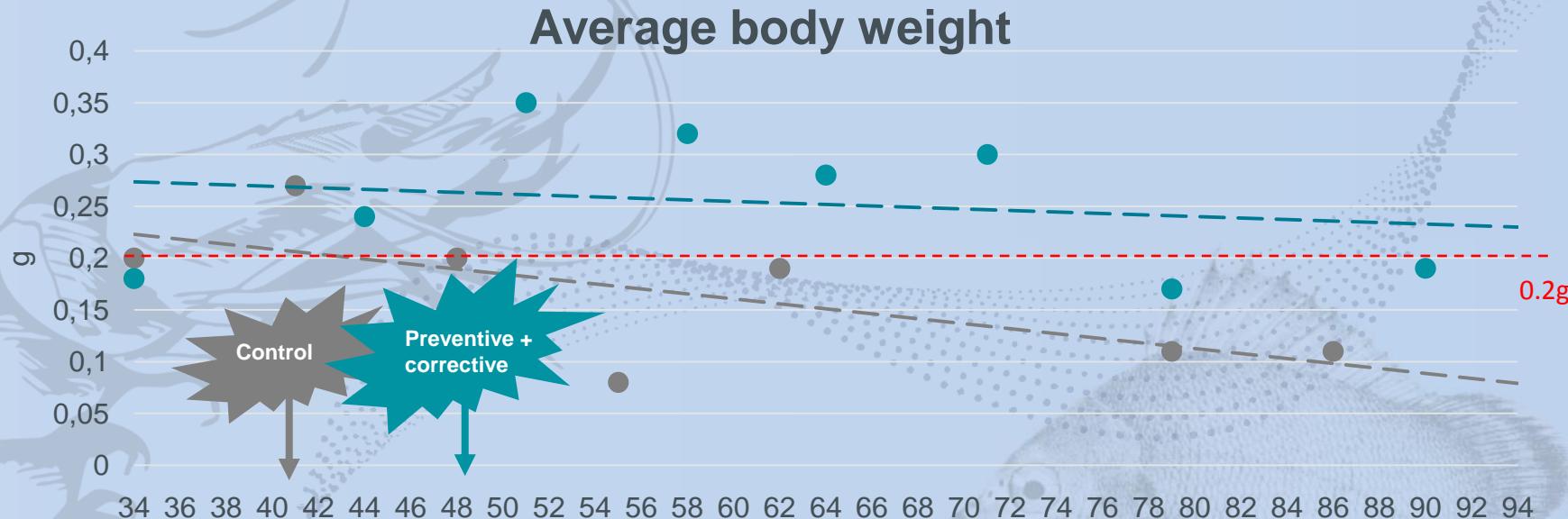


- ✓ Gopal Bore (Bala Sore), Odisha, India
- ✓ History of area : **WFS** and **WSSV**
- ✓ Observing decrease in performance over the cycles
- ✓ Bore-hole brackish water (8-14ppt)
- ✓ PL 10-12; Density of 64-65 pcs/m<sup>2</sup>
- ✓ 0.75 Ha ponds
- ✓ 1 control vs 1 treatment
- ✓ Preventive and corrective application (low and high dose of SANACORE GM applied)

# FARM TRIAL #3 : Odisha, India



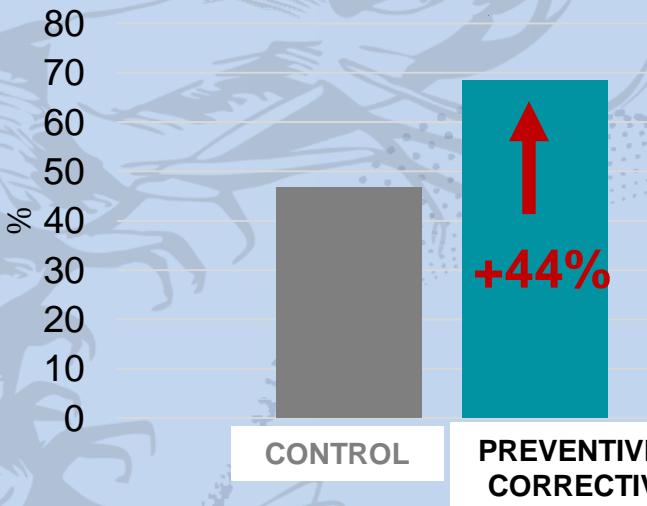
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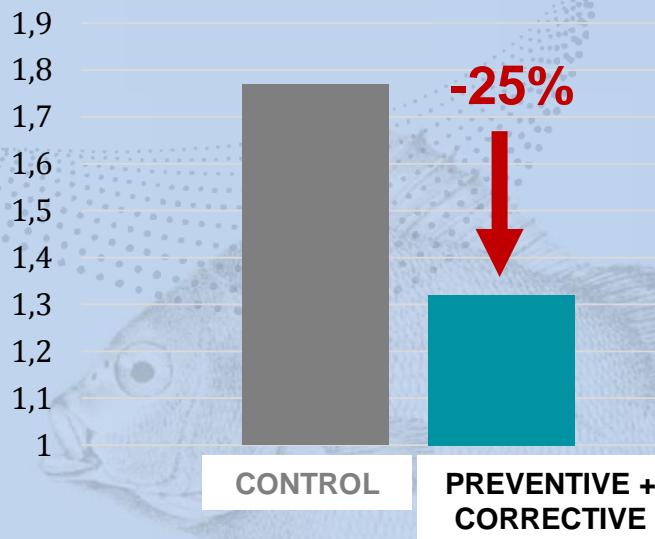
- Both control and treatment pond hit by WFS, **SANACORE GM able to delay → DOC 41 and DOC 48, and treatment pond recover faster**
- The use of SANACORE GM helps reducing the ADG loss due to the disease

# FARM TRIAL #3 : Odisha, India

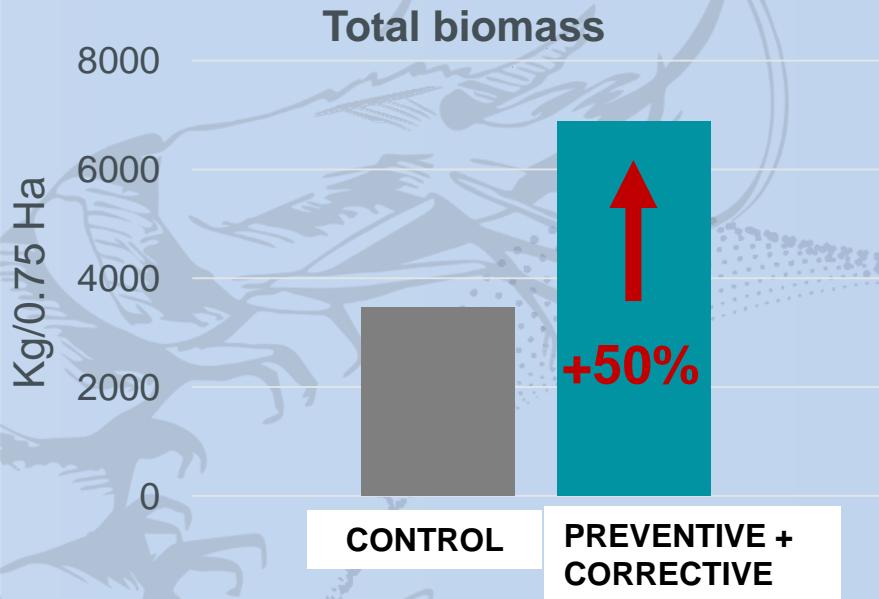
Survival (%)



FCR



# FARM TRIAL #3 : Odisha, India



# FARM TRIAL #4: Southern Sumatra, Indonesia



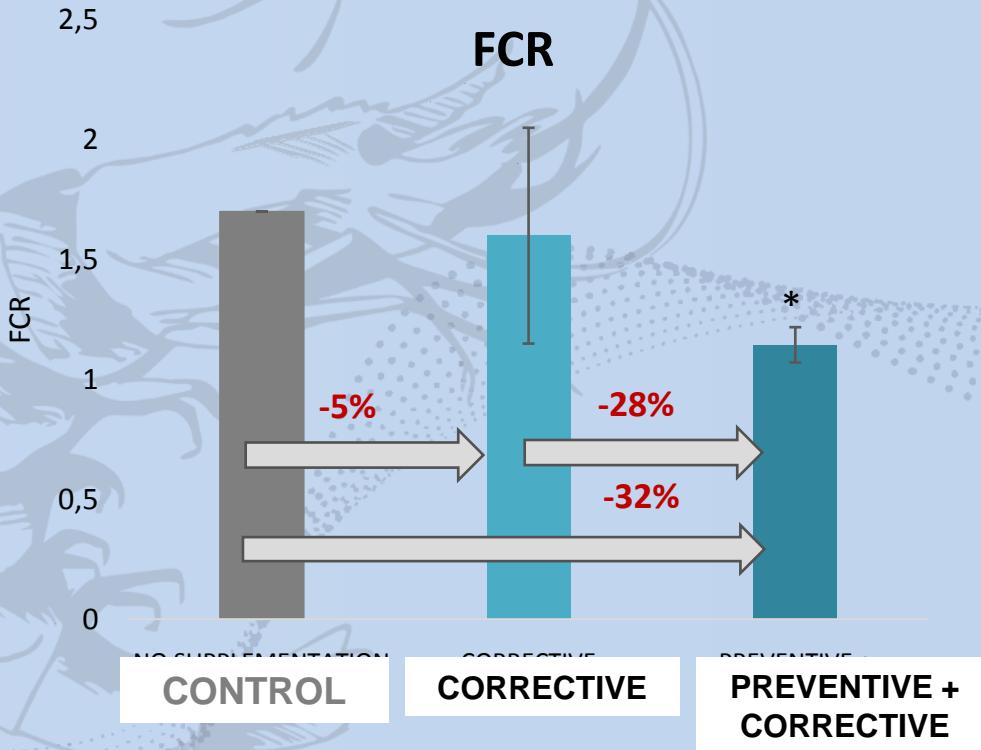
# FARM TRIAL #4: Southern Sumatra, Indonesia

- ✓ Lampung, Sumatra, Indonesia
- ✓ History of area : **WFS, WSSV, EHP**
- ✓ Last 4 crops max 50% survival
- ✓ PL 10-12; Density of 100 pcs/m<sup>2</sup>
- ✓ 1000m<sup>2</sup> ponds, 2 blocks of 10 ponds
- ✓ 20 control vs 10 corrective treatment vs 10 preventive + corrective treatment of SNGM





# FARM TRIAL #4: Southern Sumatra, Indonesia

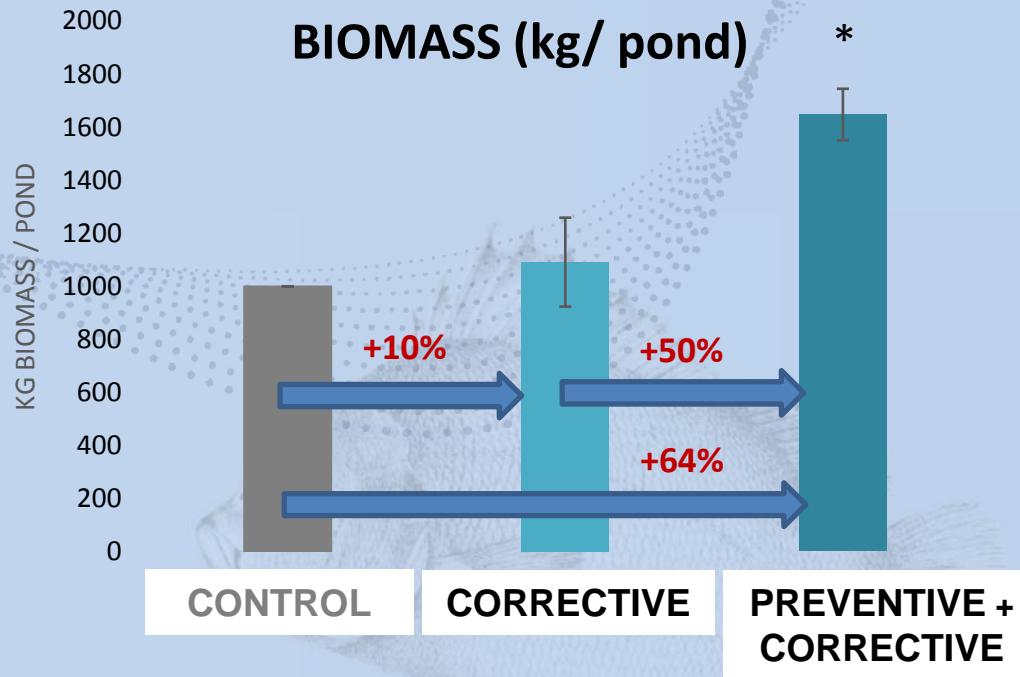


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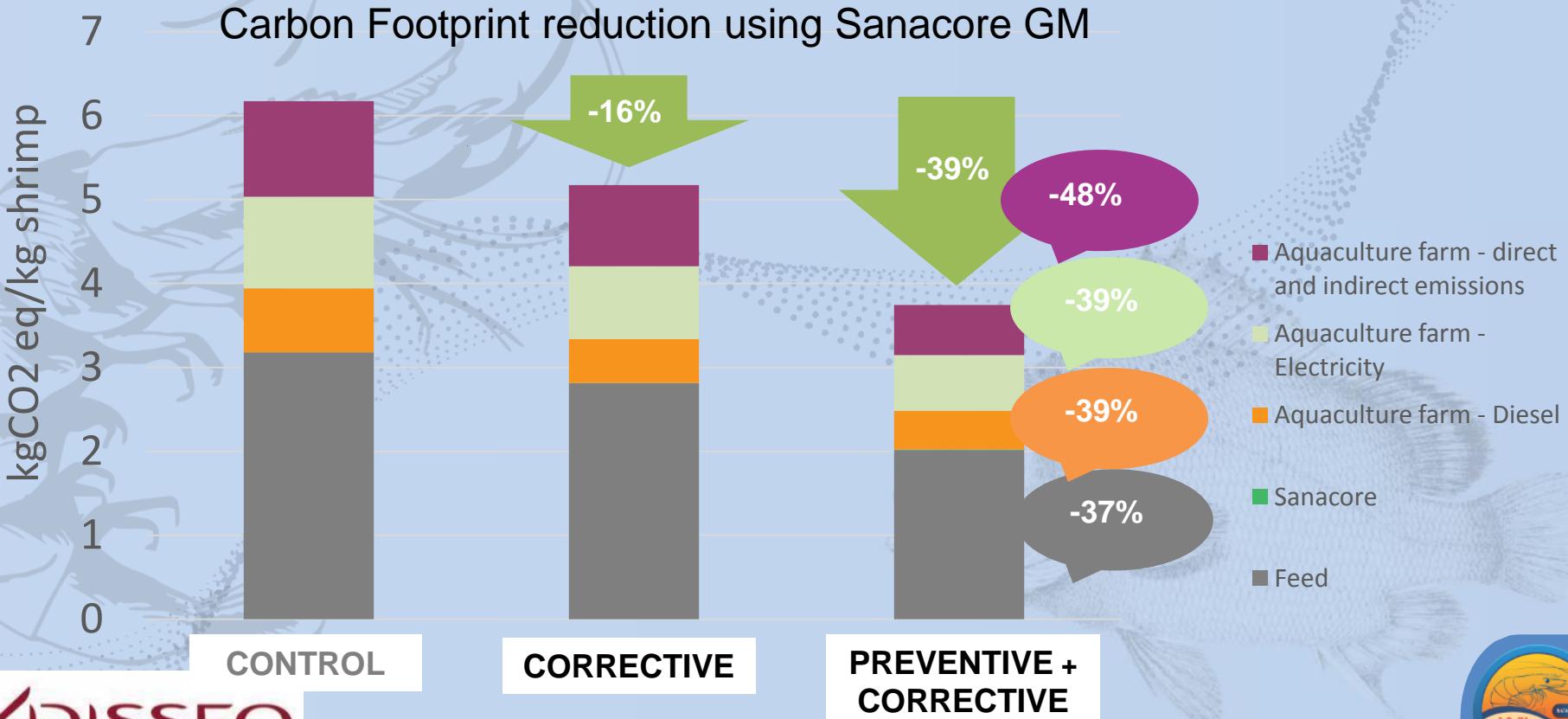
# FARM TRIAL #4: Southern Sumatra, Indonesia



	corrective	preventive + corrective
ROI	18	40



# FARM TRIAL #4: Southern Sumatra, Indonesia





# FARM TRIAL #5 : Sinaloa, México



# FARM TRIAL #5 : Sinaloa, México



- ✓ Sinaloa, México
- ✓ History of area : **Vibriosis, WSSV**
- ✓ From 3 to 17g; Density of 35 pcs/m<sup>2</sup>
- ✓ Experimental cages in production pond
- ✓ 5 replicates each treatment
- ✓ Preventive and pulse application of BACTI-NIL AQUA

# FARM TRIAL #5 : Sinaloa, México

DIET 1	SEMI-EXTENSIVE
DIET 2	EXTENSIVE (FREE OF ADDITIVES)
DIET 3	EXTENSIVE ADISSEO: DIET 2 + 0,1% AQL + 0,2% BNA
DIET 4	EXTENSIVE ADISSEO + 0,25% BNA (PULSES*)
DIET 5	EXTENSIVE (COMMERCIAL)
DIET 6	EXTENSIVE (COMMERCIAL) + 0,25% BNA (PULSES*)

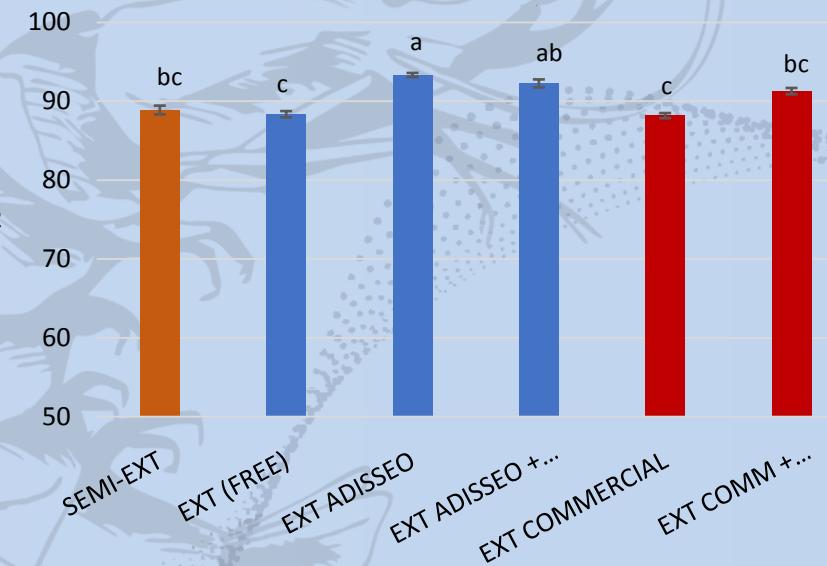
- Extensive: 10pcs/m<sup>2</sup>
- Semi-ext: 35pcs/m<sup>2</sup>
- Extensive 15% cheaper
- Raw materials: FM inclusion, additives, digestibility

*BNA PULSE STRATEGY			
% INCLUSION	DAYS	CRITICAL PERIOD	
0,2	1-10	:	3 g Shrimp recently transferred
0,5	28-37	:	8-10 g High biomass and high stress
0,3	60-70	:	16 g Shrimp reaching maturation

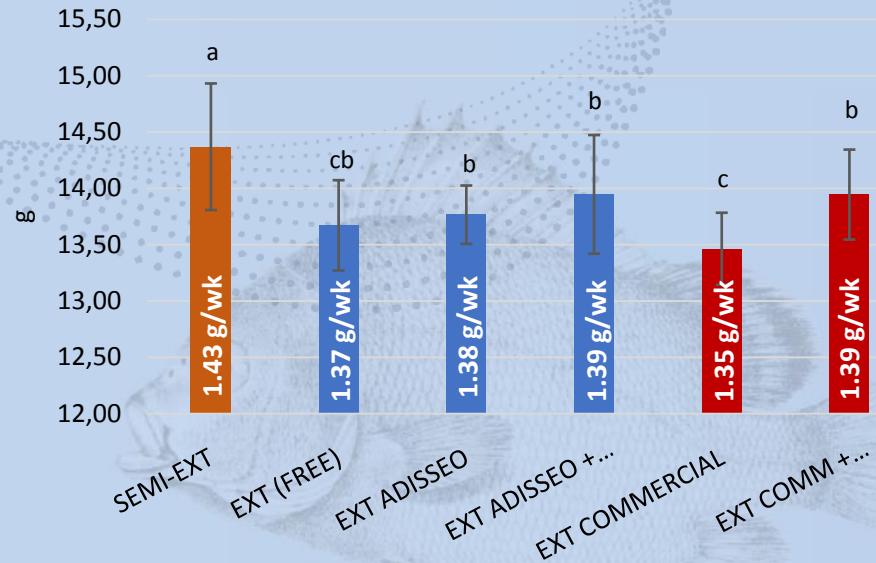
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SURVIVAL



INDIVIDUAL WEIGHT GAIN

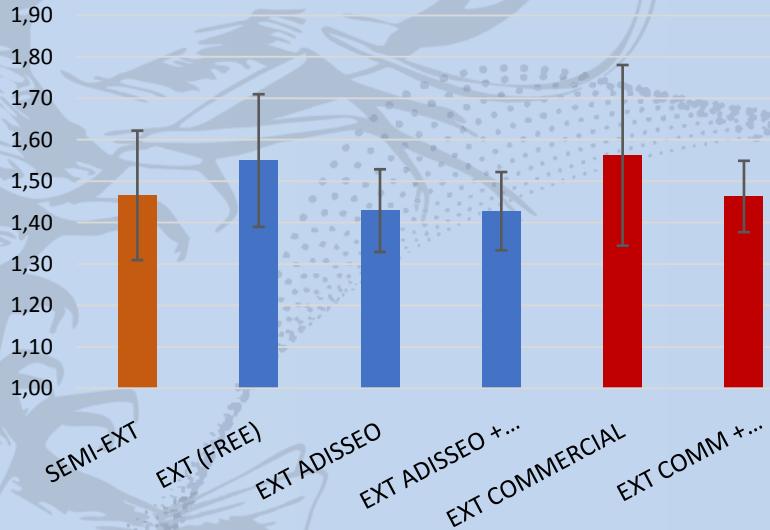


ANOVA Test /  $p<0.05$  / Holm-Sidak post-hoc test

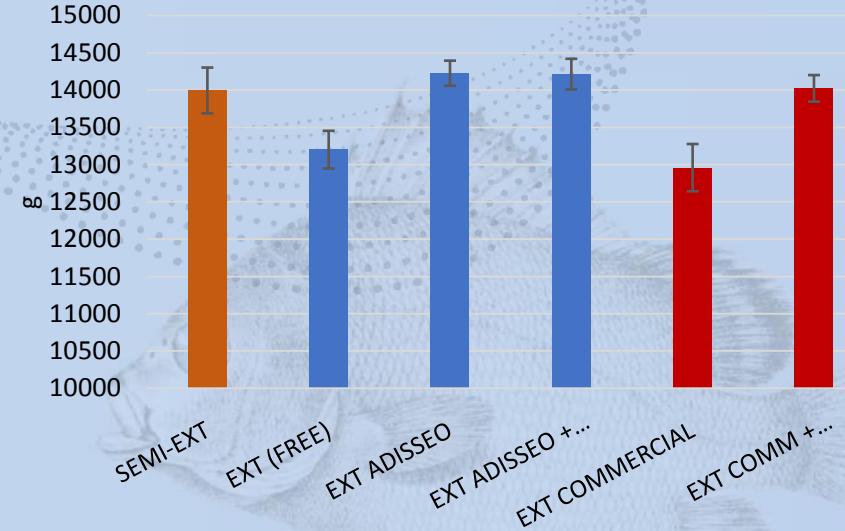
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FCR



BIOMASS GAIN (TOTAL/GROUP)



## ROI

<b>ADISSEO EXT vs. EXT FREE</b>	<b>18,11</b>
<b>ADISSE EXT + BNA PULSE VS EXT FREE</b>	<b>13,22</b>
<b>ADISSEO EXT + BNA PULSES vs. ADISSEO EXT</b>	<b>0,34</b>
<b>EXT COMM + BNA PULSES vs. EXT COMMERCIAL</b>	<b>24,68</b>

## BENEFIT-COST RATIOS

<b>SEMIEXT</b>	<b>3,12</b>
<b>EXT FREE OF ADDITIVES</b>	<b>3,65</b>
<b>EXT ADISSEO</b>	<b>3,89</b>
<b>EXT ADISSEO + BNA PULSES</b>	<b>3,87</b>
<b>EXT COMMERCIAL</b>	<b>3,47</b>
<b>EXT COMM + BNA PULSES</b>	<b>3,75</b>



# ADISSEO HEALTH PROGRAMS

- **Easy** to deliver –added at the feed mill via the mixer
- **Gut health** enhancement
- **Wide** spectrum: Increased **resistance** to disease & stress
- **Adapted** to every species – region – season needs
- Application: **Preventive & Corrective**



<https://aquaevent-by-adisseo.com/en>

