

EFFECT OF NOVACQ IN LOW AND HIGH PROTEIN DIETS, AND NATURAL PRODUCTIVITY THROUGH FERTILIZATION ON GROWTH, SURVIVAL RATE AND YIELD OF WHITELEG SHRIMP (*P. Vannamei*) IN ACEH - INDONESIA

THANKS FOR



universitas
MALIKUSSALEH

WORLD FISH

THE TEAM



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Chair of team
Conducting the
experiment at outside
in ponds



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Working on feed
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Conducting the
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BASIC DETAILS

a. Research Questions

1. Does Novacq have a potential in low and high protein diets on growth and survival of *P. vannamei*?
2. What is the effect of Novacq on growth and survival of *P. vannamei* cultured in unfertilized ponds? Which one is best if it is compared against a control diet?
3. Which does give best response between fertilized and unfertilized ponds?

b. Research Methods

Time : May 2018 - recent

[Flowchart of method](#)

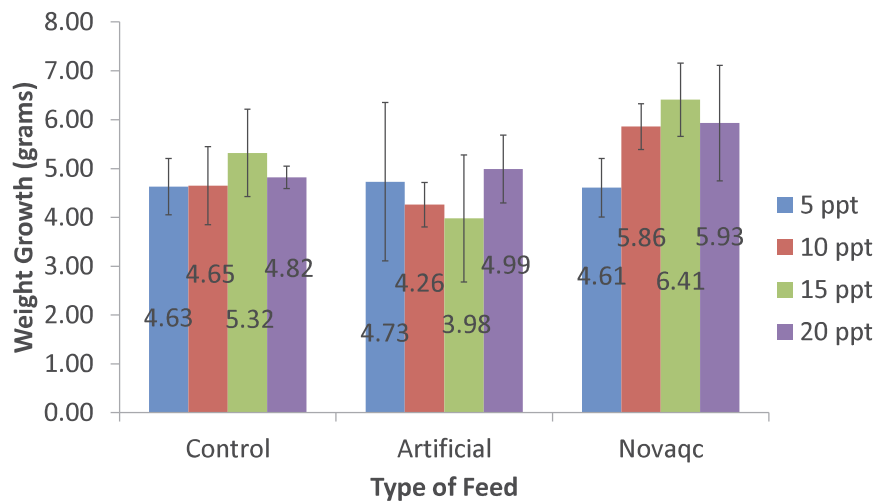
[Feed Formulation](#)

STATUS

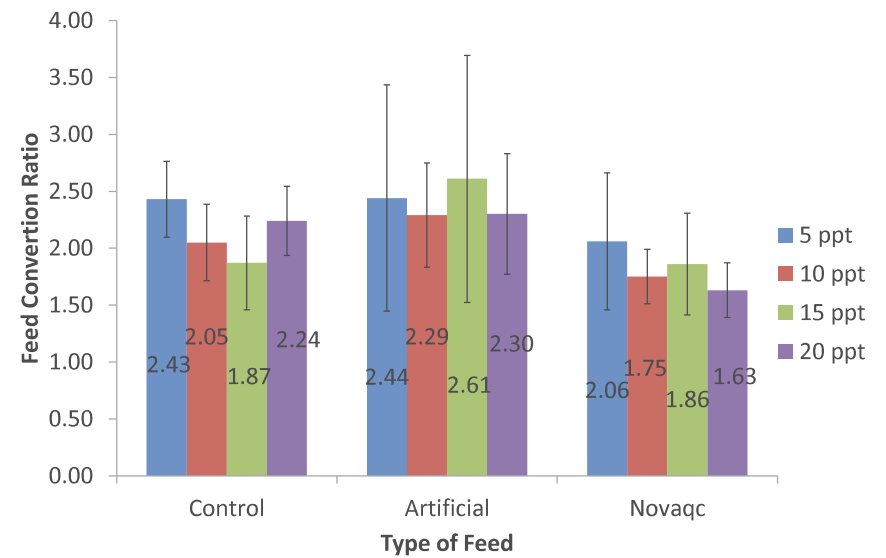
- Experiment is still going on step of feed formulation

RESULTS

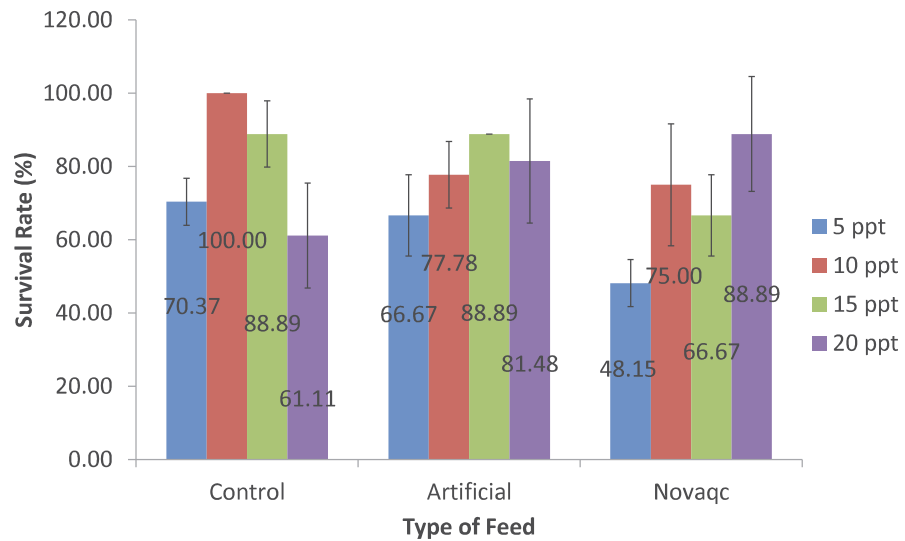
A. Weight Growth



B. FCR



C. Survival Rate



D. Protein Content of Shrimp Meat

Type of Feed	Salinity	% Protein
Control	5 ppt	70,55
	10 ppt	70,42
	15 ppt	
	20 ppt	
Artificial	5 ppt	72,52
	10 ppt	67,44
	15 ppt	68,28
	20 ppt	
Novaqc	5 ppt	73,46
	10 ppt	71,36
	15 ppt	65,13
	20 ppt	70,54

E. Lipid Content of Shrimp Meat

Type of Feed	Salinity	% Lipid
Control	5 ppt	5,47
	10 ppt	5,06
	15 ppt	
	20 ppt	
Artificial	5 ppt	6,35
	10 ppt	4,3
	15 ppt	3,2
	20 ppt	
Novaqc	5 ppt	4,28
	10 ppt	1,44
	15 ppt	4,68
	20 ppt	3,7

F. Water Quality

Parameters	Value
Temperature (oC)	27 - 29
pH	6.5 – 7.3
Dissolved Oxygen (mg/L)	4.2 - 5.5
Ammonia (mg/L)	0.2 – 9.2

CHALLENGES

- Limited funding
- No supplier who sells the feed stuffs in small amount.
- Limited helper
- Low coordination

REFLECTIONS

- Novaqc has a potential to increase the growth of *P. vannamei*.
- Novaqc can substitute high protein stuffs which are expensive in feed formulation .

IDEAS FOR FOLLOW UP

- The optimal percentage of utilizing novaqc in culturing *P. vannamei*.
- Implementation of novaqc on growth of prawn, crab, and slow growing fish.
- The effect of novaqc in accelerating gonadal maturation of fish.