



GENICS

**Reduce Risk and Maximize Profit
with Genics MultiScore**

genics.com



How MultiScore works for Hatchery Managers, Growout and Broodstock

We've created a simple to understand scorecard so farmers can quickly identify risk and opportunities to maximise profit.

For Hatchery Managers

Using our scorecard system **MultiScore**, hatchery managers can rapidly rank the health of their postlarvae in rearing tanks and make smart choices during pond stocking. It works by taking 3 samples per larval rearing tank with 20 heads in each sample (PL stage 6 onwards).

This method means you can be **95% confident** of detecting pathogens down to a point when it is present at 5% or more of the population. Importantly, the shrimp heads contain all the target organs for sensitive pathogen detection. A **MultiScore** is then given to each tank and they are ranked based on health.

- Tanks with healthy PL result in heightened production in ponds which equates to over USD \$52k/h in one study*
- Healthy PL can be sold for a premium price
- Unhealthy PL can be excluded from stocking
- Shrimp MultiPath testing is USD \$49.50 per sample, meaning a **USD \$148.50 investment per larval rearing tank has been demonstrated to deliver a USD \$52K increase in production in grow out ponds***.

The higher the score, the healthier your tanks

Neg/Low Medium High

	WSSV	HPV_HDV	MBV	IHHNV	PirA	PirB	EHP	TSV	IMNV	LSNV	MoV	YHV1	YHV2_GAV	TOTAL
Larval rearing tank 1	5	5	5	4	5	5	5	5	5	5	5	1	5	60
Larval rearing tank 2	5	5	5	5	5	5	5	5	5	5	5	5	5	65
Larval rearing tank 3	5	5	5	3	5	5	5	5	5	5	5	1	5	59
Larval rearing tank 4	5	5	5	2	5	5	5	5	5	5	5	5	5	62
Larval rearing tank 5	5	5	5	5	5	5	5	5	5	5	5	5	5	65
Larval rearing tank 6	5	5	5	5	5	5	5	5	5	5	5	5	5	65

Example only - not actual client data.

*Sellars, M.J., Cowley, J.A., Musson, D., Rao, M., Menzies, M., Coman, G.J., Murphy, M. 2019. Reduced growth performance of Black Tiger shrimp (*Penaeus monodon*) infected with infectious hypodermal and hematopoietic necrosis virus. *Aquaculture* 488: 160-166.

For Growout

Shrimp **MultiPath** can detect pathogens up to 4 weeks before you'll see clinical signs and sick shrimp.

It is **a farmers early warning system**, using data to help you make smart management choices including:

- Increase aeration, reduce shrimp stress
- Adjust feed rates
- Increase biosecurity (don't share nets, tell neighbours, exclude birds)
- Plan an early harvest if required.

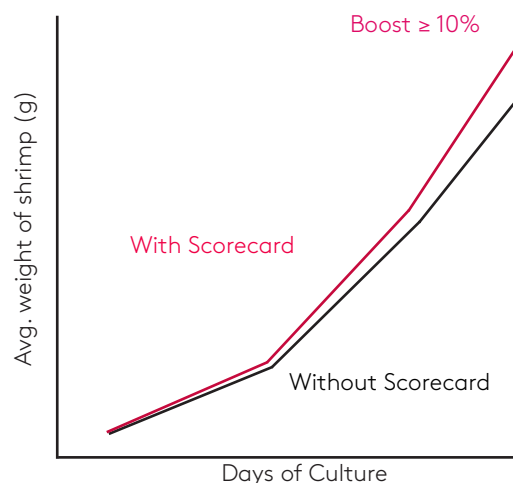
During grow-out we recommend a minimum of 3 and up to 6 sample points to monitor pathogen presence and prevalence over time - **This is your early warning system.**

Your first sampling will be at 25-35 DOC, the remaining sample points are then spaced out and placed 2-4 weeks apart. Genics will work closely with you to make data-driven decisions around when precisely to sample. Time intervals vary - site to site, and season to season.

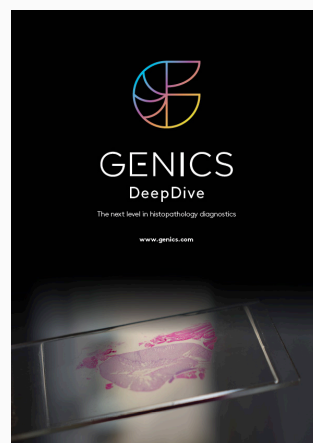
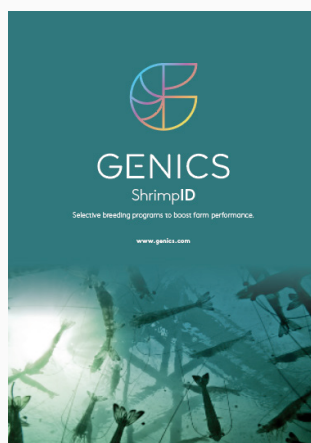
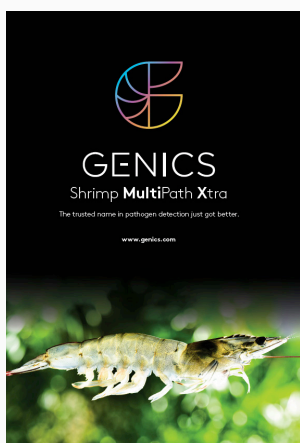
Typically, at each sample point 30 shrimp per pond are tested by pooling target organs from 5 shrimp per tube, 6 samples per pond, costing USD \$49.50 each or USD \$297 per pond. Knowing you have a pathogen like WSSV 4 weeks before you have clinically sick shrimp, or EMS/AHPND with early notice, empowers farmers to make data-driven management decisions that mitigate the risk of stock losses.

Put simply, an investment of USD \$297, could mean the difference between harvesting or not harvesting at all.

Increase the size of your shrimp with Genics



Genics Health Management Solutions



Pathogens detected: White spot syndrome virus, Taura syndrome virus, Infectious myonecrosis virus, Laem-Singh necrosis virus, Yellow head virus - variant 1, Yellow head virus - variant 7, Hepatopancreatic parvovirus, Monodon baculovirus, Infectious hypodermal and haematopoietic necrosis virus, PirA & B toxin gene (AHPND/EMS/PmMS; Acute hepatopancreatic necrosis disease/Early mortality syndrome/Penaeus monodon mortality syndrome), Gill associated virus, Mourilyan virus, Enterocytozoon hepatopenaei and Decapod iridescent virus 1 with **MultiPath Xtra**

Genics
Be Empowered with your Data

For Broodstock – Pond reared

Genics provides farmers with important data for Broodstock selection. Using our scorecard system, **MultiScore**, farmers can quickly identify **hero broodstock** in their ponds for spawning and maturation.

For pond reared broodstock* it works by firstly identifying the healthiest ponds, and secondly identifying the healthiest stock from those ponds for maximum results as broodstock. **When implemented this approach has been shown to increase growth of shrimp by $\geq 10\%$.** Typically, 30 shrimp per pond are tested by pooling target organs from 5 shrimp per tube, 6 samples per pond, costing USD \$49.50 each or USD \$297 per pond.

Step 1, we identify the healthiest ponds

The higher the score, the healthier your ponds

	Neg/Low			Medium			High									
	WSSV	HPV_HDV	MBV	IHHNV	PirA	PirB	EHP	TSV	IMNV	LSNV	MoV	YHV1	YHV2_GAV	TOTAL		
Pond 1	5	1	2	5	5	5	5	4	4	1	5	3	5	50	✓	
Pond 2	5	2	4	1	4	5	5	4	4	5	3	3	5	50	✓	
Pond 3	5	1	2	5	4	5	5	4	5	1	4	3	5	49		
Pond 4	5	2	3	1	5	5	5	4	4	1	5	3	5	48		
Pond 5	5	1	2	5	5	5	5	4	4	1	5	3	5	50	✓	
Pond 6	5	1	3	1	5	5	5	4	4	1	5	2	5	46		

Step 2, we identify the healthiest stock from those ponds for broodstock

The higher the score, the healthier your broodstock

	Neg/Low			Medium			High									
	WSSV	HPV_HDV	MBV	IHHNV	PirA	PirB	EHP	TSV	IMNV	LSNV	MoV	YHV1	YHV2_GAV	TOTAL		
Eye tag R84	5	5	5	5	5	5	5	5	5	5	5	5	5	65	✓	
Eye tag G63	5	5	5	3	1	1	5	5	5	5	5	5	5	55		
Eye tag B19	5	5	5	5	5	5	5	5	5	5	5	5	5	65	✓	
Eye tag G15	5	5	5	5	5	5	5	5	5	5	5	5	5	65	✓	
Eye tag B09	5	5	5	5	5	5	5	5	5	5	5	5	5	65	✓	
Eye tag R11	5	5	5	4	5	5	5	5	2	5	5	5	5	61		

Examples only - not actual client data.

Dr. Melony Sellars

CEO

+61 437 025 821

melony.sellars@genics.com

Chris Eccleston

Marketing and Communications
Director

chris.eccleston@genics.com

*For farms running SPF/SPR or closed system broodstock rearing contact us to understand how we can add value to your business model.