

aquapri
handpicked luxury seafood



INNOVATION

Health issues in recirculating aquaculture

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Cand. Med. Vet.: 2004

Ph.D.: 2004-2007

Field practitioner: 2007-2009

Fish health diagnostics and research: 2009-2015

Veterinarian at Aquapri A/S: 2015-

Erfaringer og håndtering av sykdomspatogener i RAS system



Danish experiences with Master Management Systems (MMS)

The farms are designed and build, to reduce the effect on the environment (increase production).

Not to prevent or reduce fish diseases.

Danish experiences with Master Management Systems (MMS)

Change in appearance / impact of diseases

Bacterial diseases:

Enteric redmouth

Rainbow trout fry syndrome

Furunculosis

BKD

Gill problems

Viral diseases ?



Danish experiences with Master Management Systems (MMS)

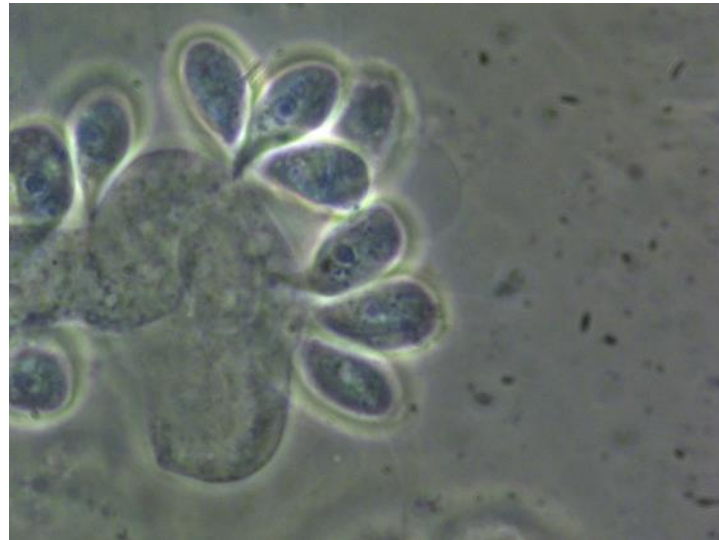
Change in appearance / impact of diseases

Parasitic diseases:

ectoparasites

PKD

Gill problems

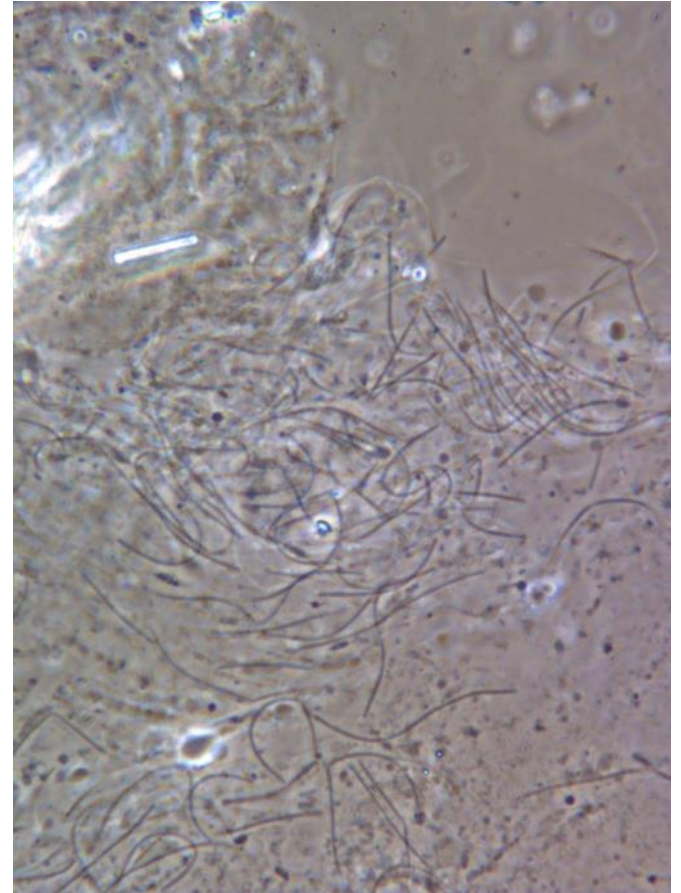


Production results

2005 - 2007		Traditional	Model 3
Use of antibiotics (mg/kg) (2007)		65	17
Mortality (% of production)	Diseases	5	7
	Accidents	< 1	5
Use of formaldehyd (37 % l pr ton prod.)		5	13

Bacterial gill disease

Acute



Veterinary issues in Danish MMS RAS farms

A proper “fish flow” is difficult to obtain.

Disinfection of units are difficult to obtain.

Treatment is difficult

Important to grow fish with the same immunological status in the same unit

- Hygiene (SPF)**
- All in - all out ??**

What do we aim for

System stability

Monitoring and journalisation of

- Biological parameters**
- Physical chemical parameters**

What do we aim for

Targeted hygiene

Relevant treatment and disinfection

What to think about

Your facility is an organism

But it is also an organism with organs