



# Kytos fingerprinting technology to support effective microbial management practices

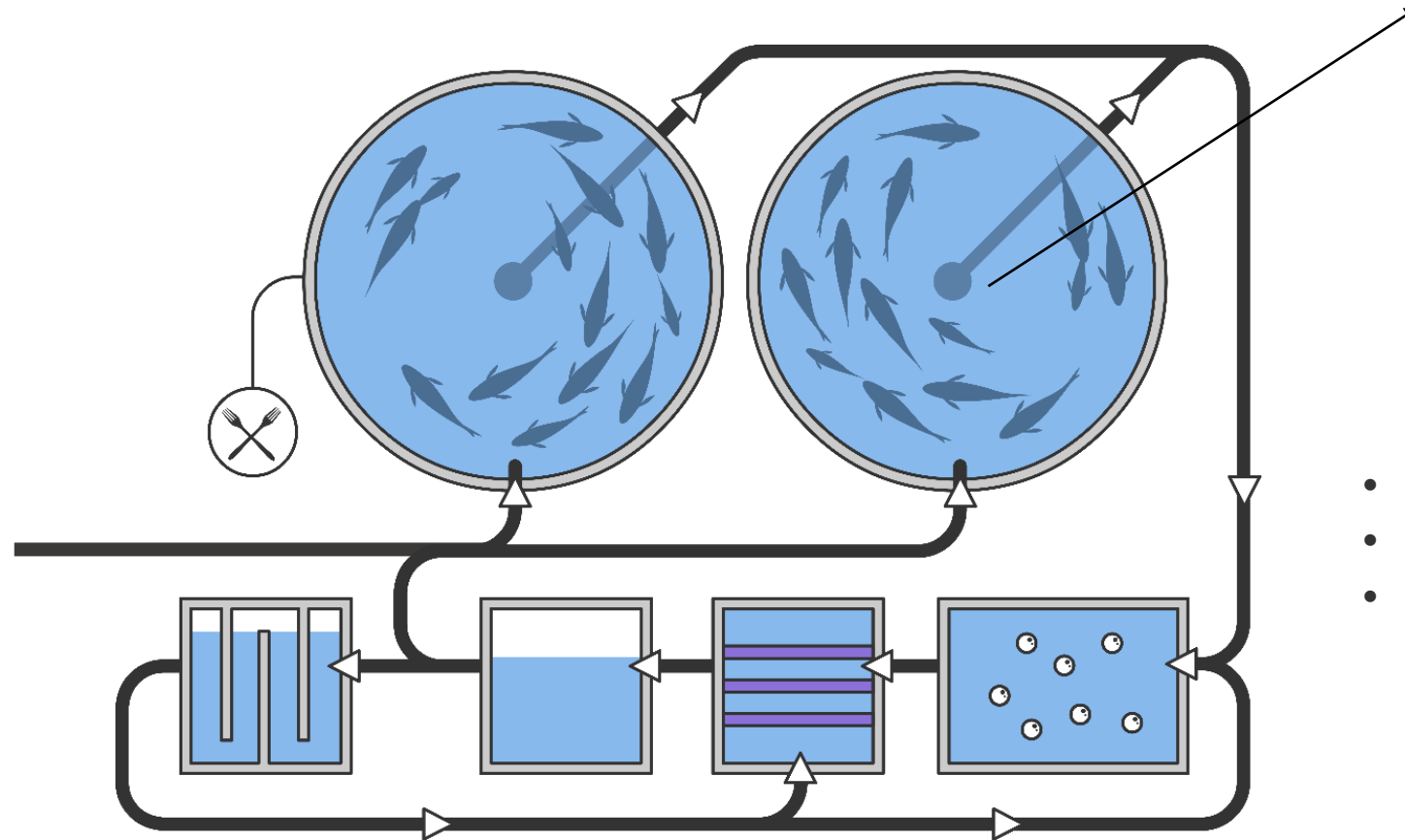
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Jasmine Heyse

Principal Scientist at KYTOS

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# Microbiome monitoring today



Rearing water:  
 $10^7$  cells/mL

~ population of Austria



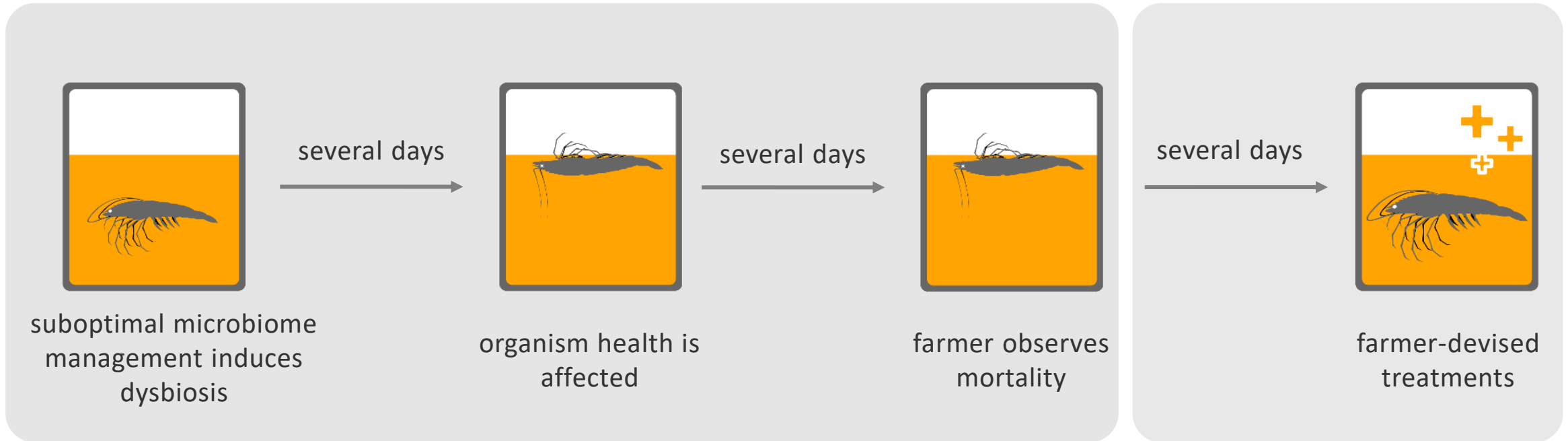
- Agar plating (Marine agar, TCBS, etc.)
- Microscopy
- Molecular diagnostics (qPCR)

**Routinely used techniques are providing info on a small fraction of the microbiome and are difficult to couple to system performance.**

# Microbiome management today

farmers miss timely insights

“blind” mitigation

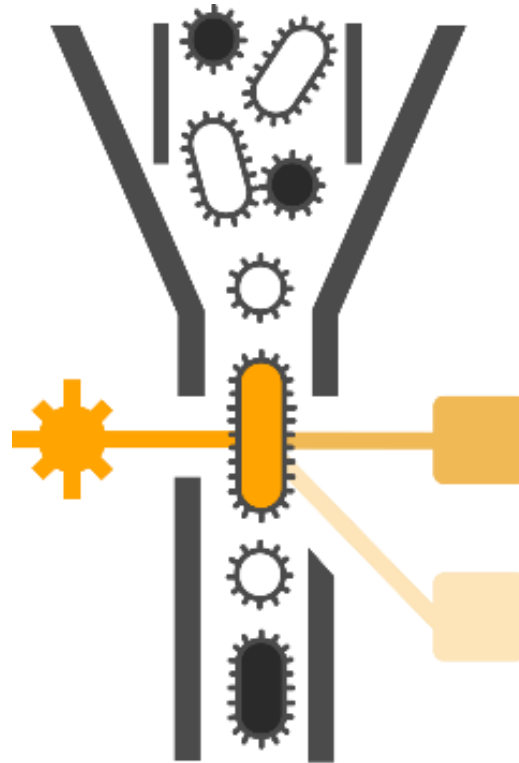


- Help farmers **understand** the effect of operational actions on microbiomes.
- Provide **timely insights**.
- Provide info on potential **treatments** and their **expected effects**.

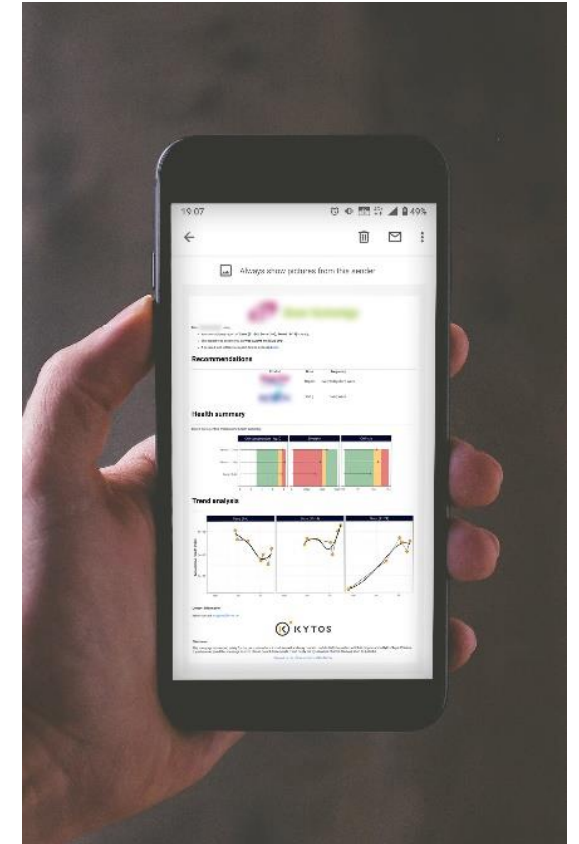
# The KYTOS Approach: microbial fingerprinting



**Small sample**  
1 mL of rearing water  
500 mg of gut content  
...



**Quick analysis of all  
micro-organisms in  
the sample**  
*Info on bacteria, algae,  
fungal spores.*



**Understandable  
microbiome metrics**  
*that connect to system  
performance*



Microbiome Health



Farm Management

# Case studies



Monitoring the health status of a system

*Detecting deviations indicative of poor performance*



Evaluating farming practices

*Biofilter cleaning*

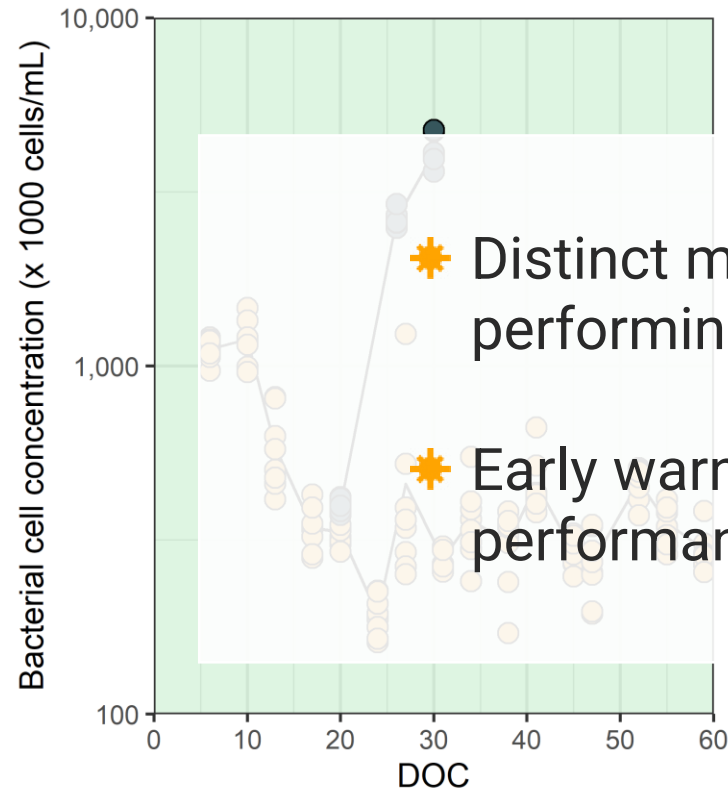


Identifying batch variations

*Optimizing live feed preparation*

# Monitoring the health status of a system

*Detecting deviations indicative of poor performance*



✱ Distinct microbial communities occupy high and low performing systems.

✱ Early warning system for corrective action and anticipate performance

Organism health

● Bad

● Good

# Case studies



Monitoring the health status of a system

*Detecting deviations indicative of poor performance*



Evaluating farming practices

*Biofilter cleaning*



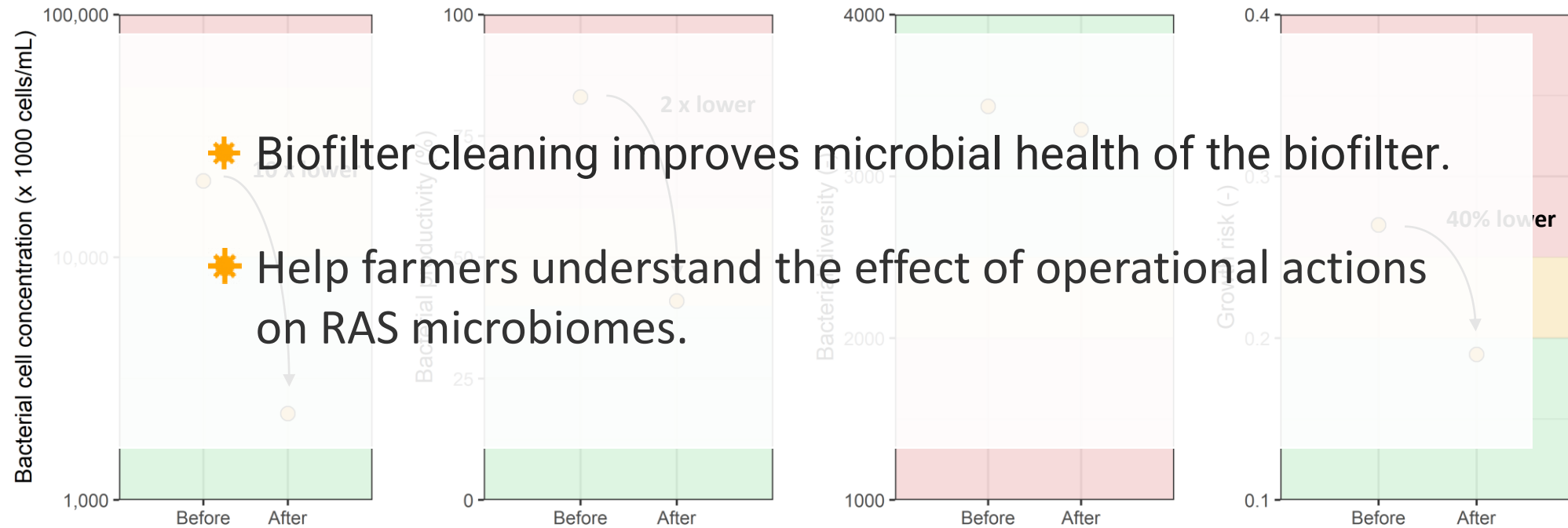
Identifying batch variations

*Optimizing live feed preparation*



# Evaluating farming practices

## Biofilter cleaning



# Case studies



Monitoring the health status of a system

*Detecting deviations indicative of poor performance*



Evaluating farming practices

*Biofilter cleaning*

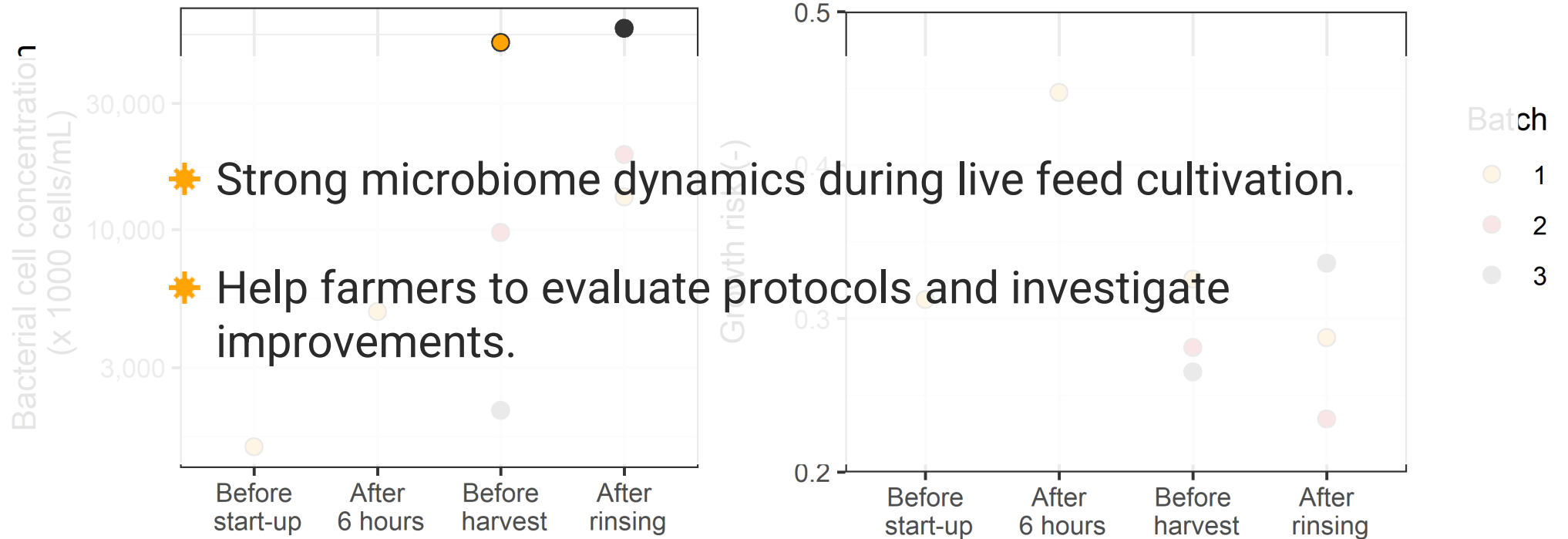


Identifying batch variations

*Optimizing live feed preparation*

# Identifying batch variations

*Optimizing live feed preparation*





**Discover how we are revolutionizing microbiome management: visit us at booth 8!**

Vienna, Austria  
Sept 18-21, 2023  
aquaculture  
europe  
23