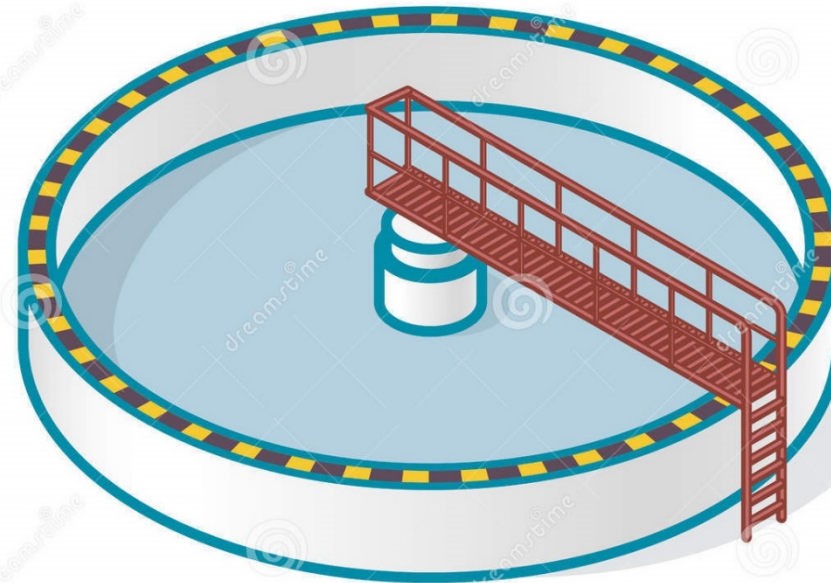


# Monitor control measures and verify performance

## Con. Module Four

Reference WHO SSP Manual, pages (70-83)



**Maha Halalsheh**

**Wastewater treatment expert**

# Learning objectives

Define and  
implement  
operational  
monitoring

Verify system  
performance

Audit the system

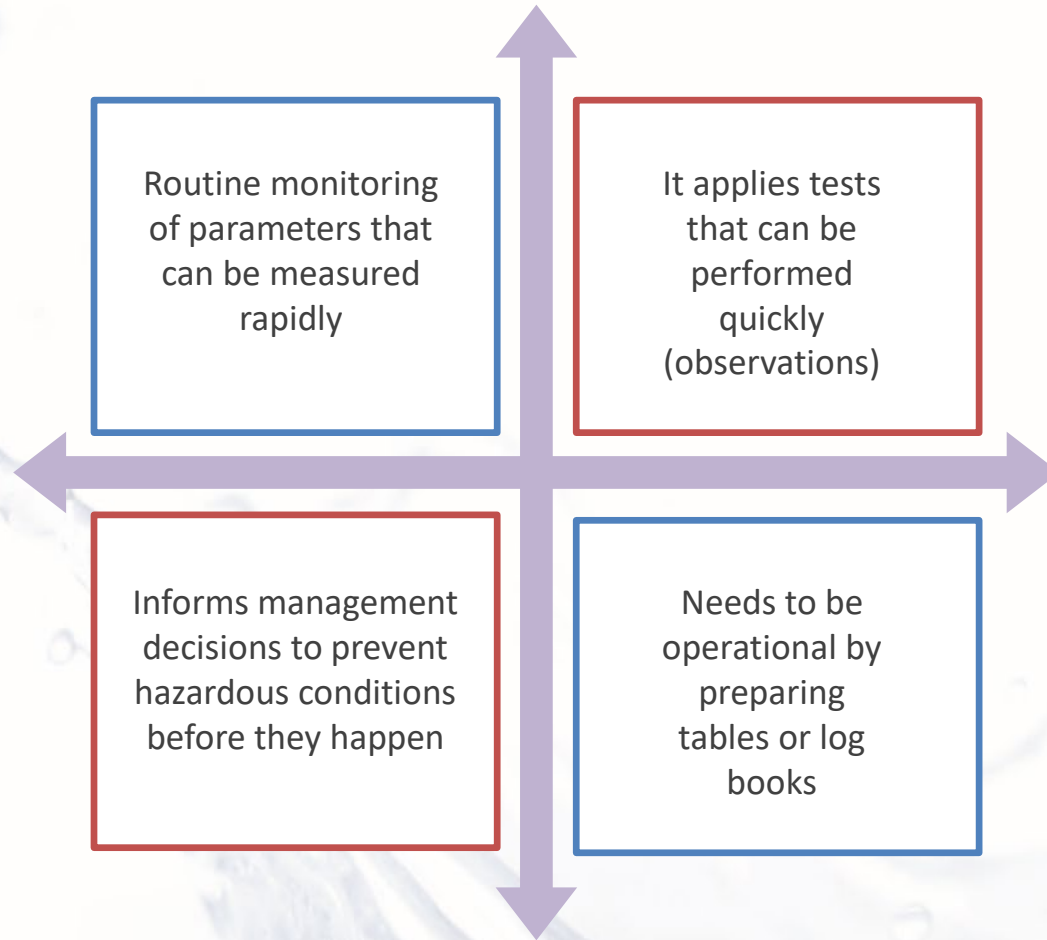
# What is monitoring?

Monitoring points shall give simple and rapid feedback on the performance of key control measures

It is essential to define limits that lead to the safe agricultural use. Limits don't necessarily mean concentration of hazard but might be a certain practice (as mentioned in the previous module)

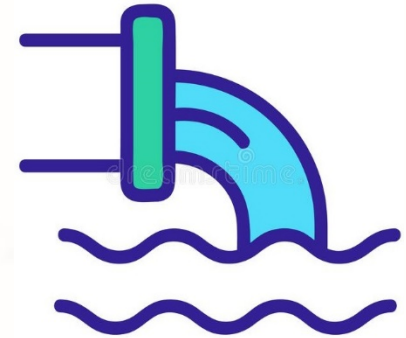


# Operational monitoring



It might also use some sampling and testing

# Operational monitoring template



## OPERATIONAL MONITORING PLAN IN COMPOST PLANT

Operational monitoring plan for:

### CONTROL MEASURE SHORT DESCRIPTION

Operational limits (see note)	Operational monitoring of the control measure		Corrective action when the operational limit is exceeded	
	<b>What is monitored?</b>		<b>What action is to be taken?</b>	
	<b>How it is monitored?</b>			
	<b>Where it is monitored?</b>		<b>Who takes the action?</b>	
	<b>Who monitors it?</b>		<b>When it is taken?</b>	
	<b>When it is monitored?</b>		<b>Who needs to be informed of the action?</b>	

**Note:** If the monitoring is outside this limit(s), the control measure is deemed to be not functioning as intended.

# Example on operational limit

## OPERATIONAL MONITORING PLAN IN COMPOST PLANT

Operational monitoring plan for:

### CONTROL MEASURE SHORT DESCRIPTION

Operational limits (see note)	Operational monitoring of the control measure	Corrective action when the operational limit is exceeded
	<b>What is monitored?</b>	<b>What action is to be taken?</b>
	<b>How it is monitored?</b>	
	<b>Where it is monitored?</b>	<b>Who takes the action?</b>
	<b>Who monitors it?</b>	<b>When it is taken?</b>
	<b>When it is monitored?</b>	<b>Who needs to be informed of the action?</b>

**Note:** If the monitoring is outside this limit(s), the control measure is deemed to be not functioning as intended.

# System Verification



Key points along the sanitation chain should be selected

More complicated monitoring form is conducted (e.g. E.coli, helminth eggs)

Parameters to be monitored, monitoring frequency, method, agency shall be specified

Critical limit and actions taken when the limit is exceeded shall be specified

# Typical verification data



Microbial testing of  
crops at exposure  
points and system  
boundaries



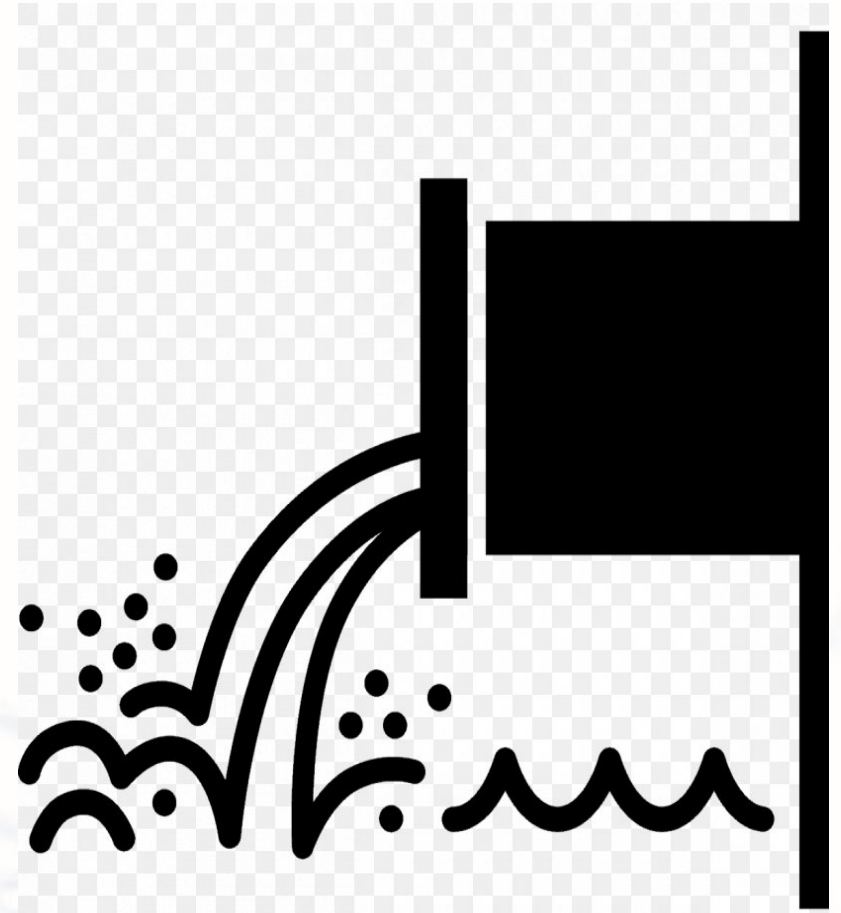
Health monitoring for  
key exposure groups



Satisfaction and  
perception surveys of  
various stakeholders



# Continue the role play



# Outputs of the Module

An operational monitoring plan

A verification monitoring plan

Independent assessment

# Questions

