

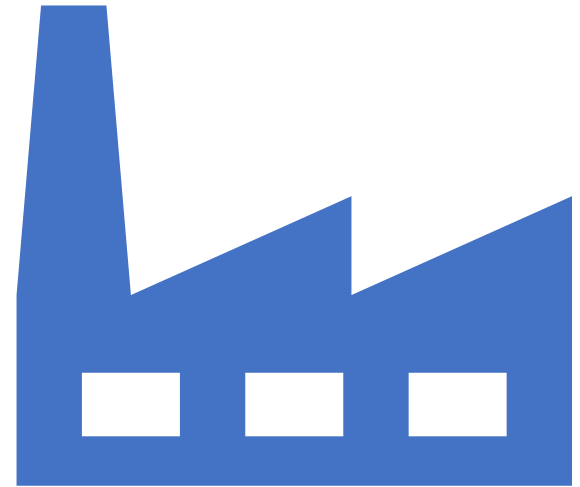
Microbiological Testing of Food Lots

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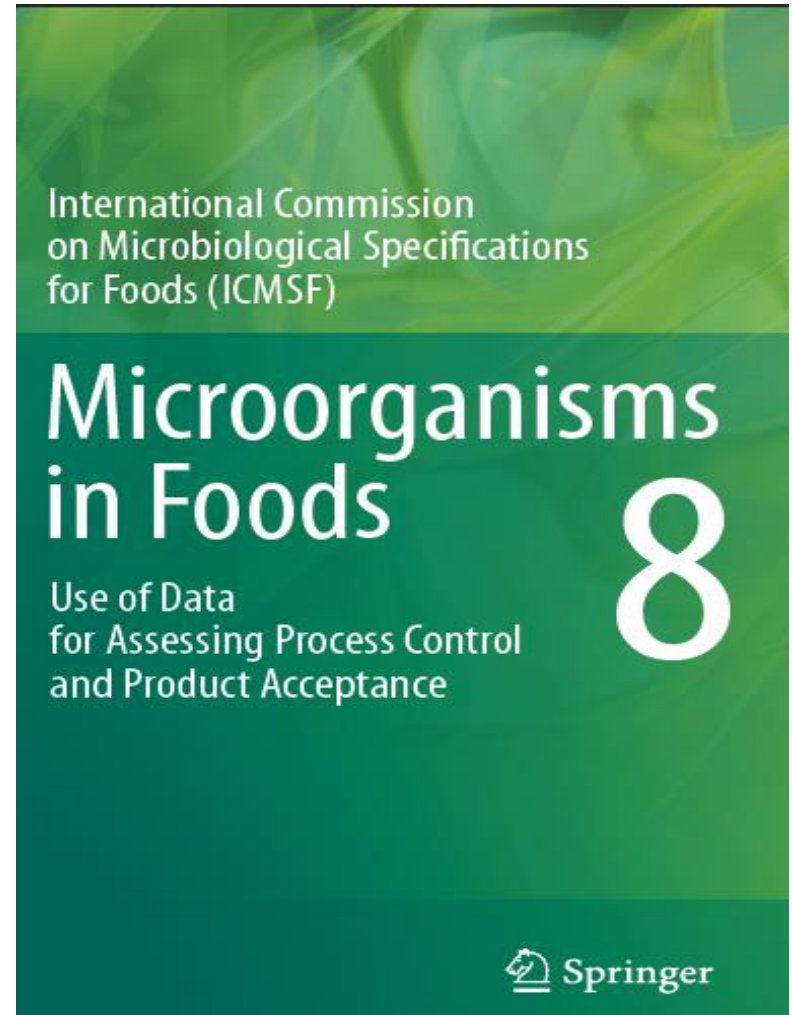
ICMSF Member 2001-present

Within-lot Versus Between-lot Testing



ICMSF Sampling Plans

- Available through Springer



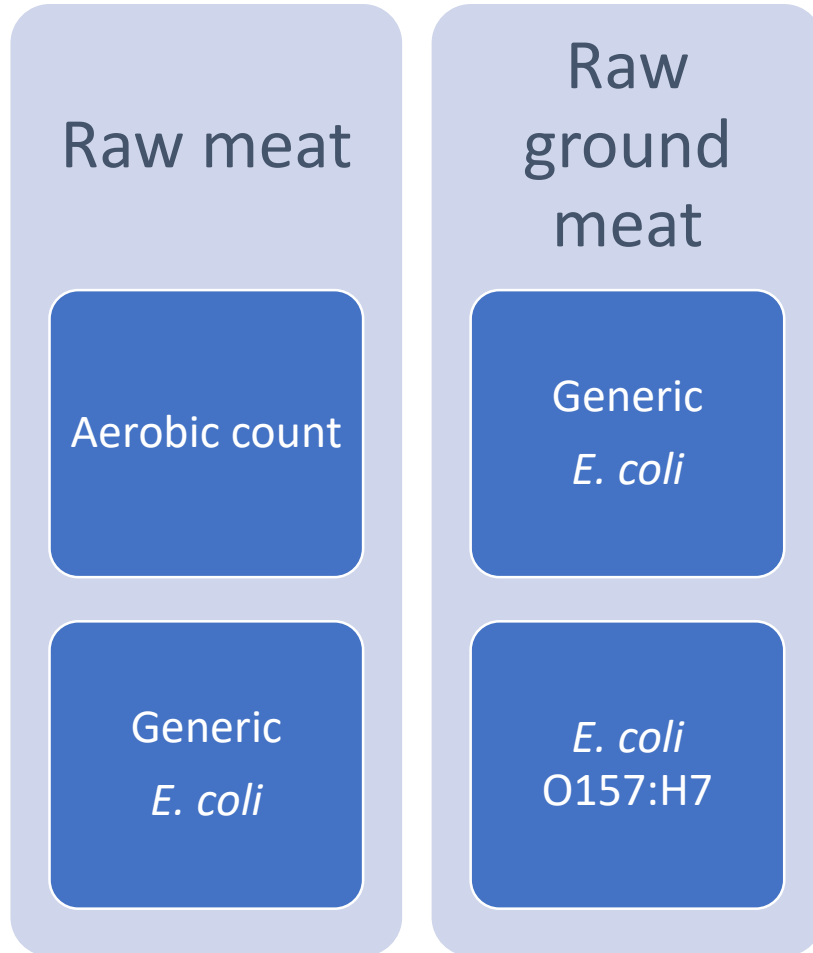
Dried Ready-to-Eat Cereal – Example

Relative importance		Useful testing
Critical ingredients	Medium	Test for mycotoxins if confidence in flour or raw grains is low Test nuts, cocoa and other sensitive ingredients not subjected to a subsequent kill step for <i>Salmonella</i> if confidence in supplier is low
In-process	High	Test appropriate product residues and in-line samples for <i>Salmonella</i> . Typical guidance levels: Salmonella – absent
Processing environment	High	Test for <i>Salmonella</i> and Enterobacteriaceae in the processing plant environment. Typical guidance levels <ul style="list-style-type: none"> • Enterobacteriaceae – 10^2 -10^3 CFU/g • <i>Salmonella</i> – absent
Shelf life	-	Not relevant
Continued on next slide		

Dried Ready-to-Eat Cereal – End Product Example

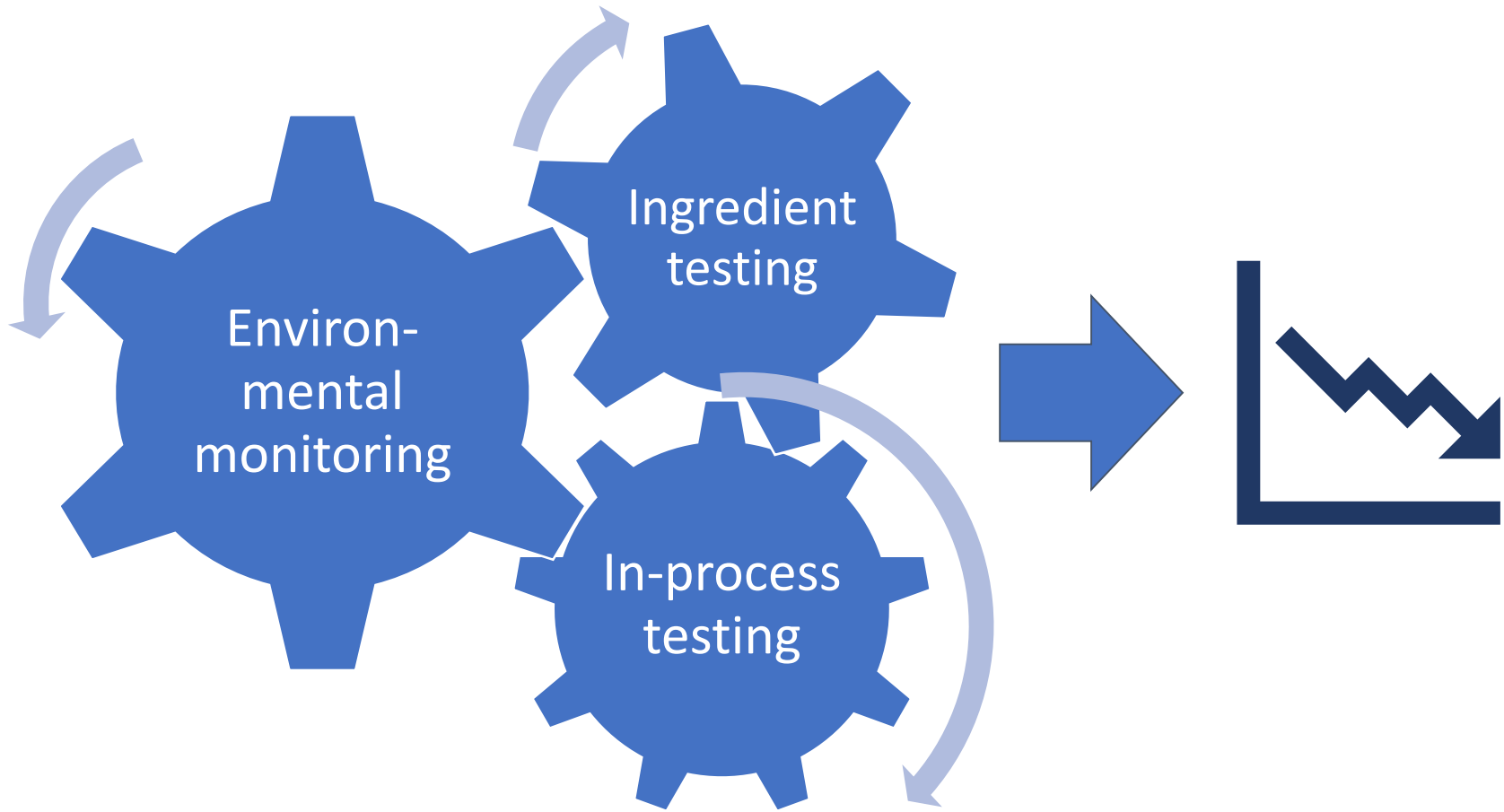
Relative importance		Useful testing						
End product	High	Testing for Enterobacteriaceae is recommended to verify process control						
				Sampling plan & limits/g				
		Microorganism	Method	Case	n	c	m	M
		Enterobacteriaceae	ISO 21528-2	2	5	2	10	10 ²
	Low	Testing for pathogens is not recommended during normal operation when GHP and HACCP are effective as confirmed by above tests. When above testing or process deviations indicate a possible safety issue, testing for <i>Salmonella</i> is recommended.						
				Sampling plan & limits/25g				
		Microorganism	Method	Case	n	c	m	M
		<i>Salmonella</i>	ISO 6579	11	10	0	0	-

Relevant Testing Differs by Product Type

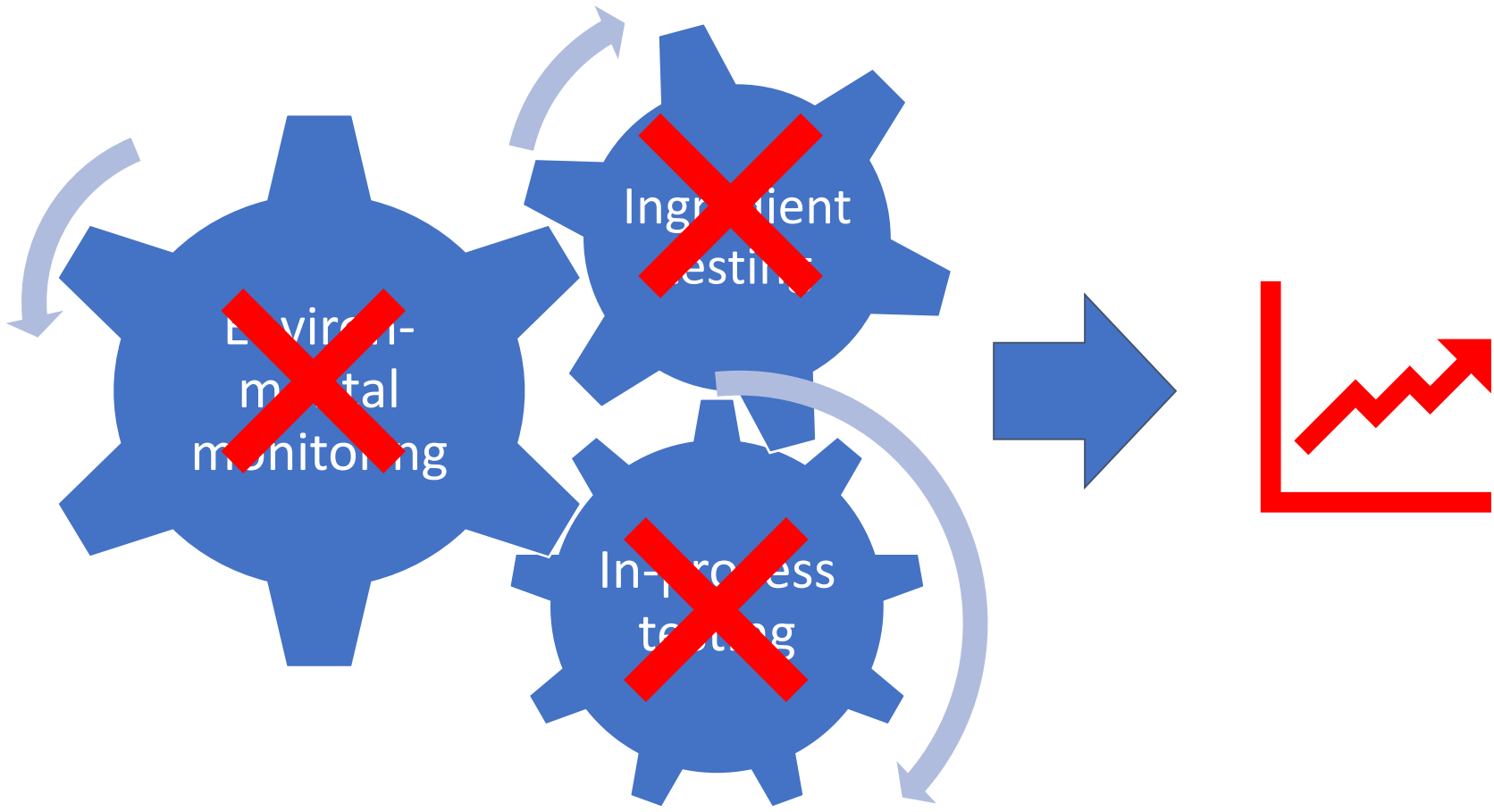


*From: ICMSF 2011. *Microorganism in Foods 8: Use of Data for Assessing Process Control and Product Acceptance*

Relative Importance Depends on Other Factors!



Relative Importance Depends on Other Factors!



Conclusions

Adapted from ICMSF 2011.
*Microorganisms in Foods 8: Use
of Data for Process Control and
Product Acceptance*

For more information, see
www.icmsf.org

- Appropriate testing for food lots is influenced by knowledge of how it was produced
- Focus resources on tests that maximize information to enhance product safety

