The anatomy of a sampling plan

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Sampling plan: example

Food category: powdered infant formulae (PIF):

Microorganism	Sampling plan		Sample weight (g)	Analytical method	
	n	С			
Cronobacter spp.	30	0	10	ISO/TS 22964	
Salmonella	60	0	25	ISO 6579	

CODEX Code of hygienic practice for powdered formulae for infants and young children CAC/RCP 66-2008

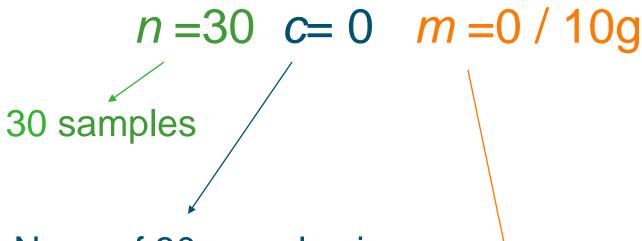
Sampling plan: example

Food category: powdered infant formulae (PIF):

Micro-organism	Sampling plan		m	М	Analytical method
	n	С			
Mesophiles	5	2	500/g	5000/g	ISO 4833
Enterobacteriaceae	10	2	0/10 g	-	ISO 21528- 1/21528-2

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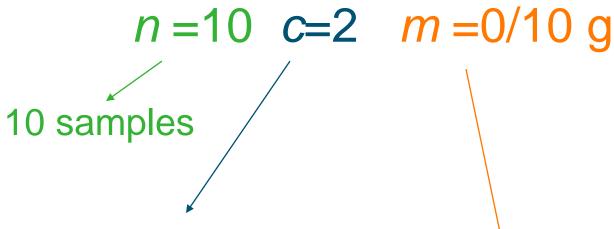
Cronobacter PIF (2-class, qualitative)



None of 30 samples is allowed to show an analytical result exceeding the microbiological limit

Microbiological limit (defective at 1 cfu/10 g or more)

Enterobacteriaceae PIF (2-class, qualitative)



Two of 10 samples are allowed to show an analytical result exceeding the microbiological limit

Microbiological limit (defective sample at 1 cfu/10 g or more)

Mesophiles – PIF (3-class, quantitative)

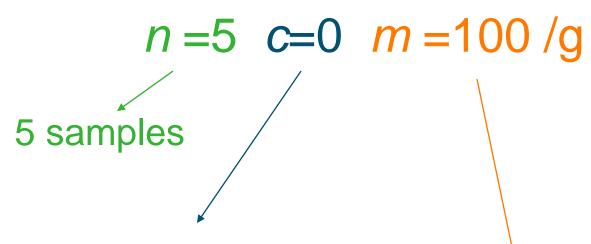
$$n=5$$
 $c_{\rm m}=2$ $m=500$ /g $M=5000$ /g Samples Microbiological limit (defective)

Two of 5 samples are allowed to show an analytical result exceeding the microbiological limit m but not M

Microbiological limit (defective) at 5,000 cfu/g

Microbiological limit (marginal defective) at 500 cfu/g

Listeria – no growth (2-class, quantitative)



None of the 5 samples are allowed to show an analytical result exceeding the microbiological limit *m*

Microbiological limit (marginal defective) at 100 cfu/g

Conclusions

- Qualitative (presence/absence) and quantitative plans
- 2-class and 3 class plans
- n, c, m and method need to be defined
- m = x cfu/g or
 m = absence in y g

