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	c		
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	M	Analytical method
	n	c			
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)

n =30 *c*= 0 *m* =0 / 10g

30 samples

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)

n =10 *c*=2 *m* =0/10 g

10 samples

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_m=2 *m* =500 /g *M* =5000/g

5 samples

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

Microbiological limit (marginal defective) at 500 cfu/g

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

Listeria– no growth (2-class, quantitative)

n =5 *c*=0 *m* =100 /g

5 samples

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