



**MEMORANDUM CIRCULAR**  
**NO. 9-2008-5**  
**Series of 2008**

**SUBJECT : GUIDELINES ON THE ASSESSMENT OF MICROBIOLOGICAL QUALITY OF FRESH, CHILLED AND FROZEN MEAT**

This guideline is being circulated for the information of all concerned particularly our meat laboratories and all other interested parties. The prescribed limits with reference to several international standards shall serve as guidelines for the assessment of microbiological quality of fresh, chilled and frozen meat both locally produced and imported.

**Microbiological Limits for Assessment of Microbiological Quality of Fresh, Chilled & Frozen Meat**

Product	Parameter	Case	Plan Class	Limits		Sampling Plan		References <sup>1</sup>
				m	M	n	c	
Fresh Meat / Offals	Total Plate Count	1	3	10 <sup>5</sup> cfu/g	10 <sup>6</sup> cfu/g*	5	3	1,2
	<i>Salmonella spp</i>	10	2	must be absent in 25 g sample	ND**	5	0	1,2,3
Chilled Meat / Offals	Total Plate Count	1	3	10 <sup>6</sup> cfu/g	10 <sup>7</sup> cfu/g	5	3	1,4
	<i>Salmonella spp</i>	10	2	must be absent in 25 g sample	ND	5	0	1,2,3
Frozen Meat / Offals	Total Plate Count	1	3	10 <sup>5</sup> cfu/g	10 <sup>7</sup> cfu/g	5	3	1,4
	<i>Salmonella spp</i>	10	2	must be absent in 25 g sample	ND	5	0	1,2,4
Chilled / Frozen Comminuted Meat / Offals	Total Plate Count	1	3	10 <sup>6</sup> cfu/g	10 <sup>7</sup> cfu/g	5	3	1,3,4
	<i>Salmonella spp</i>	10	2	must be absent in 25 g sample	ND	5	0	1,2,4
	<i>E.coli</i> count***	4	3	100 MPN/g	500 MPN/g	5	3	3,4

\* For fresh poultry: m = 5x10<sup>5</sup> cfu/g and M = 10<sup>7</sup> cfu/g

\*\* ND – No Data Available

\*\*\* If positive for *E. coli* proceed with identifying the strain. If identified as *E. coli* 0157:H7, consider Case 13 by switching to 2-plan class where n=15, and c=0

<sup>1</sup>List of References

1. International Commission on Microbiological Specifications for Foods (ICMSF) *Microorganisms in Foods 2: Sampling for Microbiological Analysis: Principle* (1986)
2. USDA (2005) and USDA/FSIS (2008a)
3. Commission Regulation European Parliament and Council (EU) (2005)
4. Agr-Food and Veterinary Authority of Singapore (AVAS). (2005).

