

Comparison of Conventionally Produced Milk with Raw Milk Produced According to Best Practices

Culture-based detection									
Study	# milk samples tested	# pathogens tested	total # pathogen tests	% Samples Positive for Target Pathogens					% samples with one or more pathogens
				Campylobacter	E. coli STEC	Listeria monocytogenes	Salmonella spp.	Yersinia spp.	
Milk produced using conventional dairying methods									
Jayarao and Henning (2001)	131	5	524	9.2	4.6	4.6	6.1	5.3	27
Jayarao et al (2006)	248	5	992	2.0	2.4	1.2	6.0	1.2	11
Rohrbach et al (1992)	292	4	876	12	N/A	4.1	8.9	15.1	33
Steele et. al. (1997)	1720	4	6880	0.5	0.9	2.7	0.2	N/A	4.1
Van Kessel et al (2004)	861	2	1722	N/A	N/A	6.5	2.6	N/A	9.1
Van Kessel et al (2008)	183	1	183	N/A	N/A	N/A	11	N/A	11
Van Kessel et al (2011) ^[1,2]	536	2	N/A	N/A	N/A	7.1	13	N/A	N/A
Milk produced using HACCP-based RAWMI methods									
BC Herdshare Assoc. (2020) ^[3]	186	4	744	0.0	0.0	0.0	0.0	N/A	0.0

Notes:

- [1] Only tests of milk samples, not filters, included in totals. Each pathogen result reported as weighted % of non-random sampling.
- [2] E. coli STEC assay: one or more Shiga-toxin genes detected by PCR.
- [3] Independent research sponsored by a non-profit association. Participants include both fully RAWMI-trained farmers and those in-training.

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PCR-based detection									
Study	# milk samples tested	# pathogens tested	total # pathogen tests	% Samples Positive for Target Pathogens					% samples with one or more pathogens
				Campylo-bacter	E. coli STEC	Listeria monocytogenes	Salmonella spp.	Yersinia spp.	
Milk produced using conventional dairying methods									
Del Collo et al (2017)	234	1	234	25	N/A	N/A	N/A	N/A	25
Karns et al (2005)	854	1	854	N/A	N/A	N/A	12	N/A	12
Karns et al (2007) ^[2]	85	1	N/A	N/A	23	N/A	N/A	N/A	23
Van Kessel et al (2011) ^[1,2]	538	2	N/A	N/A	29	N/A	28	N/A	N/A
Milk produced using HACCP-based RAWMI methods									
Organic Pastures Dairy (2019) ^[4]	3926	4	4252	0.0	0.0	0.0	0.0	N/A	0.0

Note:

[4] Daily test & hold results for retail dairy. Only milk samples, not filters included. O157:H7 only E. coli STEC strain tested.

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