

# The effects of high dose of two manganese supplements (organic and inorganic) on the rumen microbial ecosystem

Direct bacteria counts, bacteria per gram of wet rumen content, BPG, log natural transformation, Ln

K, control group, 34.3 mg Mn/kg DM feed, no manganese supplement

IMn, inorganic manganese supplement, 182.7 mg Mn/kg DM feed

OMn, organic manganese supplement, 184 mg Mn/kg DM feed

	K	IMn	OMn
Number of values	6	6	6
Minimum	22.74	23.36	23.02
25% Percentile	23.28	23.41	23.07
Median	23.60	23.61	23.38
75% Percentile	23.81	23.75	23.47
Maximum	23.93	23.91	23.52
Mean	23.52	23.60	23.31
Std. Deviation	0.4138	0.2013	0.2051
Std. Error	0.1689	0.08217	0.08374
Lower 95% CI of mean	23.08	23.39	23.09
Upper 95% CI of mean	23.95	23.81	23.52
Sum	141.1	141.6	139.8

Table Analyzed	Data 10 - counts of bacteria, Ln BPG		
Kruskal-Wallis test			
P value	0.0979		
Exact or approximate P value?	Gaussian Approximation		
P value summary	ns		
Do the medians vary signif. (P < 0.05)	No		
Number of groups	3		
Kruskal-Wallis statistic	4.648		
Dunn's Multiple Comparison Test	Difference in rank sum	Significant? P < 0.05?	Summary
K vs IMn	0.1667	No	ns
K vs OMn	5.833	No	ns
IMn vs OMn	5.667	No	ns

## Direct counts of bacteria, Ln, BpG

