

Effect of high manganese dose on sheep rumen microbial enzymatic activities

Data 6: Katalytic activities, ukat/L, all values

Ctrl, 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

Ctrl-AMYL	IMn-AMYL	OMn-AMYL	Ctrl-CMCaza	IMn-CMCaza	OMn-CMCaza	Ctrl-Xyl	IMn-Xyl	OMn-Xyl
2.50	4.11	1.85	0.72	0.91	0.47	109.53	95.92	6.44
13.83	4.38	4.19	2.14	3.02	2.69	166.14	184.65	176.41
3.23	3.39	3.24	0.38	1.21	1.65	159.43	130.78	156.32
3.11	2.33	5.39	0.53	1.46	2.36	164.14	124.21	110.17
7.67	7.10	3.98	2.16	0.91	1.32	101.83	84.30	37.91
6.02	2.98	2.81	2.08	2.23	1.17	89.73	177.55	213.63

	Ctrl-AMYL	IMn-AMYL	OMn-AMYL	Ctrl-CMCaza	IMn-CMCaza	OMn-CMCaza	Ctrl-Xyl	IMn-Xyl	OMn-Xyl
Number of values	6	6	6	6	6	6	6	6	6
Minimum	2.500	2.330	1.850	0.3800	0.9100	0.4700	89.73	84.30	6.440
25% Percentile	2.958	2.818	2.570	0.4925	0.9100	0.9950	98.81	93.02	30.04
Median	4.625	3.750	3.610	1.400	1.335	1.485	134.5	127.5	133.2
75% Percentile	9.210	5.060	4.490	2.145	2.428	2.443	164.6	179.3	185.7
Maximum	13.83	7.100	5.390	2.160	3.020	2.690	166.1	184.7	213.6
Mean	6.060	4.048	3.577	1.335	1.623	1.610	131.8	132.9	116.8
Std. Deviation	4.298	1.671	1.226	0.8743	0.8407	0.8134	35.08	41.19	81.16
Std. Error	1.755	0.6820	0.5003	0.3569	0.3432	0.3321	14.32	16.81	33.14
Lower 95% CI of mean	1.550	2.295	2.291	0.4175	0.7411	0.7564	94.99	89.68	31.64
Upper 95% CI of mean	10.57	5.801	4.863	2.253	2.506	2.464	168.6	176.1	202.0
Sum	36.36	24.29	21.46	8.010	9.740	9.660	790.8	797.4	700.9

Table Analyzed	Data 6 - katalytické aktivity, ukat/L				
One-way analysis of variance					
P value	0.2828				
P value summary	ns				
Are means signif. different? (P < 0.05)	No				
Number of groups	3				
F	1.375				
R square	0.1550				
Bartlett's test for equal variances					
Bartlett's statistic (corrected)	7.945				
P value	0.0188				
P value summary	*				
Do the variances differ signif. (P < 0.05)	Yes				
ANOVA Table	SS	df	MS		
Treatment (between columns)	20.87	2	10.44		
Residual (within columns)	113.8	15	7.588		
Total	134.7	17			
Dunnett's Multiple Comparison Test	Mean Diff.	q	Significant? P < 0.05?	Summary	95% CI of diff
Ctrl-AMYL vs IMn-AMYL	2.912	1.265	No	ns	-1.868 to 5.891
Ctrl-AMYL vs OMn-AMYL	2.483	1.561	No	ns	-1.396 to 6.363

Table Analyzed	Data 6 - katalytické aktivity, ukat/L				
One-way analysis of variance					
P value	0.8023				
P value summary	ns				
Are means signif. different? (P < 0.05)	No				
Number of groups	3				
F	0.2236				
R square	0.02895				
Bartlett's test for equal variances					
Bartlett's statistic (corrected)	0.02406				
P value	0.9880				
P value summary	ns				
Do the variances differ signif. (P < 0.05)	No				
ANOVA Table	SS	df	MS		
Treatment (between columns)	0.3179	2	0.1589		
Residual (within columns)	10.66	15	0.7109		
Total	10.98	17			
Dunnett's Multiple Comparison Test	Mean Diff.	q	Significant? P < 0.05?	Summary	95% CI of diff
Ctrl-CMCaza vs IMn-CMCaza	-0.2883	0.5923	No	ns	-1.476 to 0.8991
Ctrl-CMCaza vs OMn-CMCaza	-0.2750	0.5649	No	ns	-1.462 to 0.9124

Table Analyzed	Data 6 - katalytické aktivity, ukat/L				
One-way analysis of variance					
P value	0.8596				
P value summary	ns				
Are means signif. different? (P < 0.05)	No				
Number of groups	3				
F	0.1528				
R square	0.01997				
Bartlett's test for equal variances					
Bartlett's statistic (corrected)	3.864				
P value	0.1448				
P value summary	ns				
Do the variances differ signif. (P < 0.05)	No				
ANOVA Table	SS	df	MS		
Treatment (between columns)	969.3	2	484.6		
Residual (within columns)	47572	15	3171		
Total	48541	17			
Dunnett's Multiple Comparison Test	Mean Diff.	q	Significant? P < 0.05?	Summary	95% CI of diff
Ctrl-Xyl vs IMn-Xyl	-1.102	0.03388	No	ns	-80.41 to 78.21
Ctrl-Xyl vs OMn-Xyl	14.99	0.4609	No	ns	-64.32 to 94.30