

Cell Count Controlmilk samples -Goat Milk - interlaboratory study March 2024- MS 03

No.	Instr.No.	Instr.	KIT		No.03-March 24			No.03-March 24			No.03-March 24			level *)	Slope
			Slope	Intercept	Cell count Milk I			Cell count Milk II			Cell count Milk III				
					cells	VK%`r`	% calc.	cells	VK%`r`	% calc.	cells	VK%`r`	% calc.		
1	No.107/I	Combi FT+			910	1,3	89%	"1087	1,1	76%	"1423	1,2	71%	79%	
2	No. 109/I	DCC			"896	5,2	89%	"1186	2,8	86%	"1692	3,8	85%	87%	
3	No. 109/II	DCC			926		91%	1281		86%	1823	5,2	88%	88%	0,88
4	No. 46/1	FM FC	1,00	0	1012	1,6	99%	1193	2,6	80%	1770	2,8	86%	88%	0,76
5	No. 46/2	FM FC	1,00	0	964	1,6	94%	"1101	3,4	79%	1913	2,2	93%	89%	0,93
6	No. 40/2	BacSomatic			954	2,1	93%	1261	2,3	85%				89%	0,72
7	No.112/1	SC			951	1,5	93%	1447	1,4	98%	1957	0,4	95%	95%	0,98
8	No. 74	FM7 DC	1,00	0	971	2,4	95%	1413	1,4	95%	1959	1,0	95%	95%	0,96
9	No. 73	FM FC	1,00	0	971	2,4	95%	1413	2,4	95%	1959	1,0	95%	95%	0,96
10	No. 39/2	FM FC	1,03	0	1033	1,1	101%	1304	1,7	88%	2073	1,3	100%	96%	1,03
11	No.70	FM 7	1,00	0	964	0,9	94%	1497	1,7	101%	2061	0,5	100%	98%	1,06
12	No.13	FM FC	1,00	0	1049	2,0	103%	1347	1,6	91%	2071	1,6	100%	98%	1,01
13	No. 83	FM 5000	1,03	1	1023	2,2	100%				2016	1,8	98%	66%	1,12
14	No.71/1	FM FC	1,00	0	1074	1,1	105%	1525	1,6	103%	2119	1,1	103%	103%	1,02
15	No.29	FM5000	1,00	0	998	2,2	98%	1503	1,6	101%	2050	1,8	99%	99%	1,02
16	No.143/I	FM DC	1,00	0	1031	1,0	101%	1482	0,8	100%	2032	1,1	98%	100%	0,98
17	No.97	FM 7	1,00	0	1011	1,0	99%	1483	1,0	100%	2075	0,9	100%	100%	1,04
18	No.167/I	FM FC	1,00		1032	1,1	101%	1524	0,6	103%	2015	0,5	98%	100%	0,95
19	No. 72	FM FC	1,00	0	1030	2,8	101%	1519	1,3	102%	2039	2,0	99%	101%	0,98
20	No. 152/5A	FM DC	1,00								2086	1,9	101%		
21	No. 152/2	FT +	1,00								2099	2,3	102%		
22	No. 152/4B	FM 7	1,00								2110	0,7	102%		
23	No. 39/1	FM5000	0,98	0	1078	1,4	105%	1568	1,1	106%	2125	1,9	103%	105%	1,02
24	No- 02/B	Bacsomatic	1,00	0	1125	1,1	110%	1581	2,8	107%	2094	0,7	101%	106%	0,94
25	No. 75/I	FM7 DC	1,00	0	1104	1,8	108%	"1160	1,4	82%	2124	1,0	103%	98%	1,00
26	No. 152/1	7 DC	1,00								2169	1,1	105%	35%	
27	No. 93/1	SCC-FC	1,00	1	1049	3,7	103%	1564	2,0	105%	2276	3,1	110%	106%	1,20
28	No. 40/1	FM minor			1175	3,4	115%	1590	3,3	107%				111%	0,97
Mean					1019		97%	1447		96%	2042		101%		
Median					1023			1483			2066				
ref./calc.value Goat milk					1050	(970-1190)		1510	1372-1680)		2020	1917-2225)			
r`VK %					2,0%			1,8%			1,7%				
s-R					65			118			108				
R`VK%					6,4%			8,2%			5,3%				

Geo-Mean (Tolerance = +/- uncertainty of meas) **1017** 888 1146 **1442** 1207 1678 **2039** 1824 2255
ref.value (+/-10%) **1017** 945 1155 **1510** 1359 1661 **2020** 1818 2222

SC: Somascope BS: Bacsomatic
SCC: Somacount DCC: DeLaval
FM7-DC: new generation from Foss

*) difference to Median

VK%`r`: repeatability (Standard deviation of repeatability/arithm.mean*100)
VK%`R`: reproducibility (Standard deviation of reproducibility/arithm.mean*100)
s-R : Standard deviation of reproducibility

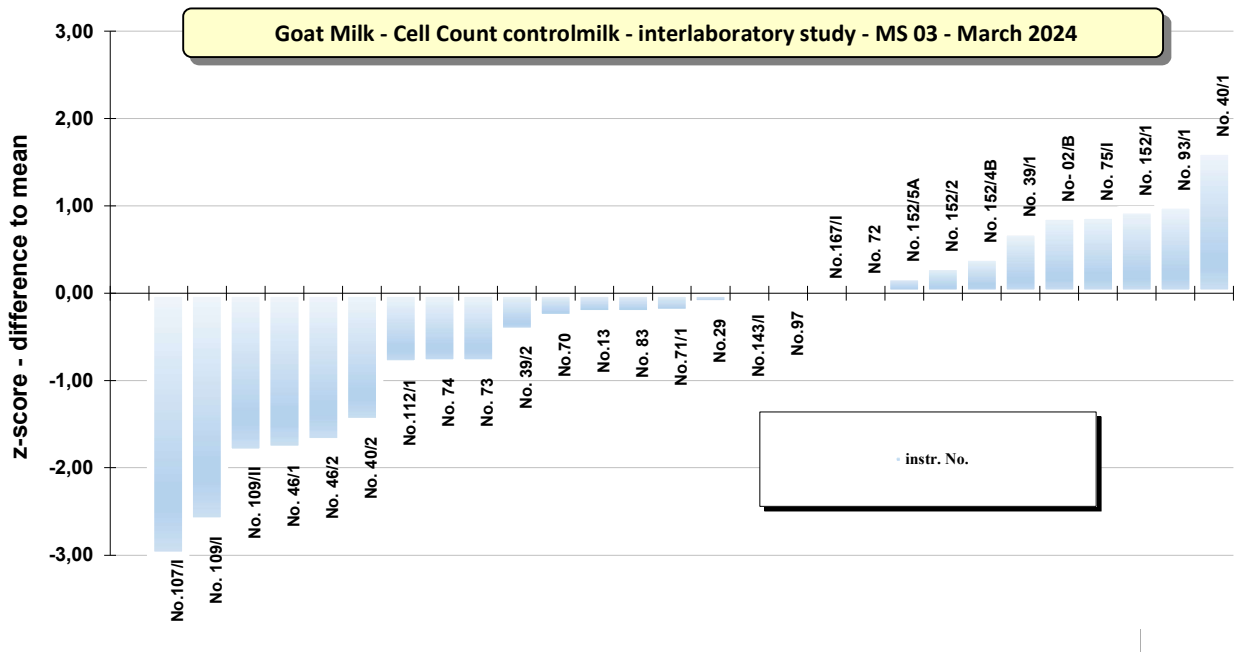
No.	Instr.No.	Instr.	Slope	Intercept	No.03-March 24			No.03-March 24			No.03-March 24			level *)	Slope			
					Cell count Milk I			Cell count Milk II			Cell count Milk III							
					cells	VK%	r'	% calc.	cells	VK%	r'	% calc.	cells	VK%	r'	% calc.	Total %	%

Mean					1019			97%	1447			96%	2042			101%		
Median					1023				1483				2066					
ref./calc.value		Goat milk			1050	(970-1190)			1510	(1372-1680)			2020	(1917-2225)				
r'VK %					2,0%				1,8%				1,7%					
s-R					65				118				108					
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 ref.value (+/-10%) **1017** 945 1155 **1510** 1359 1661 **2020** 1818 2222

SC: Somascope BS: Bacsomatic
 SCC: Somacount DCC: DeLaval
 FM7-DC: new generation from Foss

VK%`r': repeatability (Standard deviation of repeatability/arithm.mean*100)
 VK%`R': reproducibility (Standard deviation of reproducibility/arithm.mean*100)
 s-R : Standard deviation of reproducibility



Z-score:

= Measure of the permissible deviation from individual results at the respective reference material

$$|Z| = (C_{jk} - C_k) / s-R$$

C_{jk} = observed value

C_k = sample mean

s-R : Standard deviation of the whole data set

|Z| ≤ 0,5 = very good testing/results

|Z| ≤ 1,0 = good results

|Z| ≤ 2,0 = satisfactory results

|Z| > 2,0 = disputable results