

Appendix 1. Practical application of the repeatability limits (r) on wheat flour

IA%		CDU	
Validity range 87.3 to 95.4		Validity range 3 to 23.8	
Sr = -0.0061 IA% + 0.6941		Sr = -0.007 CDU + 0.4433	
Repeatability limit (r = Sr x 2.8)		Repeatability limit (r = Sr x 2.8)	
IA%	CDU	CDU	CDU
87.3	0.45	3.0	1.17
87.5	0.44	3.5	1.16
87.7	0.44	4.0	1.15
87.9	0.44	4.5	1.14
88.1	0.43	5.0	1.13
88.3	0.43	5.5	1.12
88.5	0.43	6.0	1.11
88.7	0.42	6.5	1.10
88.9	0.42	7.0	1.09
89.1	0.42	7.5	1.08
89.3	0.41	8.0	1.07
89.5	0.41	8.5	1.06
89.7	0.41	9.0	1.05
89.9	0.40	9.5	1.04
90.1	0.40	10.0	1.03
90.3	0.40	10.5	1.02
90.5	0.39	11.0	1.01
90.7	0.39	11.5	1.00
90.9	0.39	12.0	1.00
91.1	0.38	12.5	0.99
91.3	0.38	13.0	0.98
91.5	0.38	13.5	0.97
91.7	0.37	14.0	0.96
91.9	0.37	14.5	0.95
92.1	0.37	15.0	0.94
92.3	0.36	15.5	0.93
92.5	0.36	16.0	0.92
92.7	0.36	16.5	0.91
92.9	0.35	17.0	0.90
93.1	0.35	17.5	0.89
93.3	0.35	18.0	0.88
93.5	0.34	18.5	0.87
93.7	0.34	19.0	0.86
93.9	0.34	19.5	0.85
94.1	0.33	20.0	0.84
94.3	0.33	20.5	0.83
94.5	0.33	21.0	0.82
94.7	0.32	21.5	0.81
94.9	0.32	22.0	0.80
95.1	0.32	22.5	0.79
95.3	0.31	23.0	0.78
95.5	0.31	23.5	0.77
		24.0	0.76

Appendix 2. Practical application of reproducibility limits (R) on wheat flour

IA%		CDU	
Validity range 87.3 to 95.4		Validity range 3 to 23.8	
SR = $-0.0294 \text{ IA\%} + 2.993$		SR = $-0.0332 \text{ CDU} + 1.3191$	
Repeatability limit (R = SR x 2.8)		Repeatability limit (R = SR x 2.8)	
IA%		CDU	
87.3	1.18	3.0	3.38
87.5	1.16	3.5	3.33
87.7	1.15	4.0	3.29
87.9	1.13	4.5	3.24
88.1	1.12	5.0	3.19
88.3	1.10	5.5	3.15
88.5	1.08	6.0	3.10
88.7	1.07	6.5	3.06
88.9	1.05	7.0	3.01
89.1	1.03	7.5	2.96
89.3	1.02	8.0	2.92
89.5	1.00	8.5	2.87
89.7	0.99	9.0	2.83
89.9	0.97	9.5	2.78
90.1	0.95	10.0	2.73
90.3	0.94	10.5	2.69
90.5	0.92	11.0	2.64
90.7	0.90	11.5	2.60
90.9	0.89	12.0	2.55
91.1	0.87	12.5	2.50
91.3	0.86	13.0	2.46
91.5	0.84	13.5	2.41
91.7	0.82	14.0	2.37
91.9	0.81	14.5	2.32
92.1	0.79	15.0	2.27
92.3	0.77	15.5	2.23
92.5	0.76	16.0	2.18
92.7	0.74	16.5	2.14
92.9	0.73	17.0	2.09
93.1	0.71	17.5	2.04
93.3	0.69	18.0	2.00
93.5	0.68	18.5	1.95
93.7	0.66	19.0	1.91
93.9	0.64	19.5	1.86
94.1	0.63	20.0	1.81
94.3	0.61	20.5	1.77
94.5	0.59	21.0	1.72
94.7	0.58	21.5	1.68
94.9	0.56	22.0	1.63
95.1	0.55	22.5	1.58
95.3	0.53	23.0	1.54
95.5	0.51	23.5	1.49
		24.0	1.45

Appendix 3: Practical application of the practical difference ( DC) in laboratory 1

IA%		CDU	
Validity range 86.4 to 95.4		Validity range 0.7 to 24.6	
Sr = -0.0061 IA% + 0.6941		Sr = -0.007 CDU + 0.4433	
Critical Difference in 1 laboratory (CD = Sr x 1.98)		Critical Difference in 1 laboratory (CD = Sr x 1.98)	
IA%		CDU	
87.3	0.32	3.0	0.84
87.5	0.32	3.5	0.83
87.7	0.32	4.0	0.82
87.9	0.31	4.5	0.82
88.1	0.31	5.0	0.81
88.3	0.31	5.5	0.80
88.5	0.31	6.0	0.79
88.7	0.30	6.5	0.79
88.9	0.30	7.0	0.78
89.1	0.30	7.5	0.77
89.3	0.30	8.0	0.77
89.5	0.29	8.5	0.76
89.7	0.29	9.0	0.75
89.9	0.29	9.5	0.75
90.1	0.29	10.0	0.74
90.3	0.28	10.5	0.73
90.5	0.28	11.0	0.73
90.7	0.28	11.5	0.72
90.9	0.28	12.0	0.71
91.1	0.27	12.5	0.70
91.3	0.27	13.0	0.70
91.5	0.27	13.5	0.69
91.7	0.27	14.0	0.68
91.9	0.26	14.5	0.68
92.1	0.26	15.0	0.67
92.3	0.26	15.5	0.66
92.5	0.26	16.0	0.66
92.7	0.25	16.5	0.65
92.9	0.25	17.0	0.64
93.1	0.25	17.5	0.64
93.3	0.25	18.0	0.63
93.5	0.25	18.5	0.62
93.7	0.24	19.0	0.61
93.9	0.24	19.5	0.61
94.1	0.24	20.0	0.60
94.3	0.24	20.5	0.59
94.5	0.23	21.0	0.59
94.7	0.23	21.5	0.58
94.9	0.23	22.0	0.57
95.1	0.23	22.5	0.57
95.3	0.22	23.0	0.56
95.5	0.22	23.5	0.55
		24.0	0.55

Appendix 4. Practical application of the critical difference (CD) in 2 laboratories

IA%	
Validity range 87.3 to 95.4	
Critical difference in 2 laboratories ( $CD = 2.8 \sqrt{S^2_R - 0.5S^2_I}$ )	
IA%	CD
87.3	1.14
87.5	1.12
87.7	1.11
87.9	1.09
88.1	1.07
88.3	1.06
88.5	1.04
88.7	1.02
88.9	1.01
89.1	0.99
89.3	0.98
89.5	0.96
89.7	0.94
89.9	0.93
90.1	0.91
90.3	0.89
90.5	0.88
90.7	0.86
90.9	0.84
91.1	0.83
91.3	0.81
91.5	0.80
91.7	0.78
91.9	0.76
92.1	0.75
92.3	0.73
92.5	0.71
92.7	0.70
92.9	0.68
93.1	0.66
93.3	0.65
93.5	0.63
93.7	0.61
93.9	0.60
94.1	0.58
94.3	0.56
94.5	0.55
94.7	0.53
94.9	0.51
95.1	0.50
95.3	0.48
95.5	0.46

CDU	
Validity range 3 to 23.8	
Critical difference in 2 laboratories ( $CD = 2.8 \sqrt{S^2_R - 0.5S^2_I}$ )	
CDU	CD
3.0	3.28
3.5	3.23
4.0	3.18
4.5	3.14
5.0	3.09
5.5	3.05
6.0	3.00
6.5	2.96
7.0	2.91
7.5	2.86
8.0	2.82
8.5	2.77
9.0	2.73
9.5	2.68
10.0	2.63
10.5	2.59
11.0	2.54
11.5	2.50
12.0	2.45
12.5	2.41
13.0	2.36
13.5	2.31
14.0	2.27
14.5	2.22
15.0	2.18
15.5	2.13
16.0	2.08
16.5	2.04
17.0	1.99
17.5	1.95
18.0	1.90
18.5	1.85
19.0	1.81
19.5	1.76
20.0	1.71
20.5	1.67
21.0	1.62
21.5	1.58
22.0	1.53
22.5	1.48
23.0	1.44
23.5	1.39
24.0	1.34