Sub #	Moisture Z-Values	Absorption Z-Values	Arrival Z-Values	Peak Z-Values	Stability Z-Values	Departure Z-Values	MTI Z-Values	20 Min Drop Z-Values
19	0.65	1.50	1.39	0.13	0.40	0.39	1.23	
20	0.99	2.44	0.61	0.41	1.08	1.12	1.23	
50	1.46	0.55	1.39	2.37	0.55	0.49	0.68	
54	0.57	0.34	1.39	0.41	0.19	0.16	0.04	
55	0.48	1.50	1.39	1.42	0.49	0.43	0.42	
56	0.46	1.23	1.39	0.97	0.64	0.53	0.85	
58	0.29	0.87	0.61	1.03	0.08	0.05	0.42	
102	0.18	0.87	0.19	0.31	1.11	0.96	0.34	
137	0.18	1.39	1.39	0.15	1.44	1.35	1.23	
139	0.48	2.28	0.61	1.81	2.12		0.04	
164	1.26	0.39	0.61	0.41	0.55	0.39	2.50	
246	1.87	1.76	0.61	0.70	0.04	0.16	0.42	1.96
300	0.93	1.23	0.99	0.87	0.61	1.65	0.47	0.53
308	0.56	0.18	0.61	0.98	0.11	0.02	1.31	0.71
378	0.46	0.34	0.61	0.98	0.70	0.53	0.04	0.71
497	0.46	1.23	1.39	* 3.71	1.20	1.03	0.68	0.97
623	1.64	0.24	0.61	0.70	0.49	0.39	1.06	
657	0.93	0.03	1.39	2.09	0.93	0.84	1.31	0.22
687	1.18	1.02	0.61	2.09	1.82	1.66	0.04	
719	1.88	0.29	0.61	0.70	1.53	1.53	1.95	1.15
1056	0.37	0.34	0.61	0.82	2.00		0.17	0.09
1325	0.93	1.81	0.61	1.53	0.64	0.71	0.04	
1354	1.40	1.55	1.81	0.43	0.04	0.24	0.21	
1427	0.01	1.23	1.41	0.43	0.25	0.12	0.04	0.09
1456	0.42	1.97	0.61	0.70	0.55	0.57	0.68	0.53
1462	0.48	0.24	1.41	0.26	1.23	0.96	0.85	1.65
1499	0.37	0.24	1.39	0.70	0.19	0.16	0.04	1.33
1503	0.32	0.71	0.61	0.15	0.40	0.25	0.60	0.22
1506	0.52	0.03	0.61	0.70	0.93	0.98	1.23	
1508	0.23	0.18	0.19	0.76	1.77	1.57	0.09	
1519	1.45	0.50	1.39	0.43	0.04	0.02	0.68	0.22
1540	2.82	1.08	0.61	1.25	0.34	0.43	0.04	0.53
1547	1.88	0.55	1.01	0.70	0.25	0.12	1.31	0.53
1549	0.46	0.24	0.61	0.82	0.93	0.98	0.30	0.84
1556	0.84	0.55	0.61	0.75	0.93	0.98	2.25	0.53
1559	0.43	0.03		0.70	1.00		0.68	
1585	0.46	0.03	1.39	0.02	0.81	0.73	0.81	
1593	0.48	0.45	0.99	1.15	1.97	3.02	2.25	2.20
1662	0.01	0.18	1.41	1.25	0.70	0.71	0.04	1.15
1663	0.24	0.24	0.61	0.43	1.08	1.12	1.31	0.84
1692	1.41	0.18	0.59	0.70	0.05	0.02	1.31	
1716	1.41	0.13	0.59	0.98	1.68	1.48	* 5.05	
1720	0.01	0.18	0.61	0.87	0.91	1.92	0.21	
1741	0.18	0.24	0.59	0.82	0.49	0.49	0.34	0.47

Sub #	Moisture Z-Values	Absorption Z-Values	Arrival Z-Values	Peak Z-Values	Stability Z-Values	Departure Z-Values	MTI Z-Values	20 Min Drop Z-Values
N	44	44	43	43	44	41	43	22
Mean	0.77	0.74	0.90	0.84	0.80	0.76	0.74	0.80
Min	0.01	0.03	0.19	0.02	0.04	0.02	0.04	0.09
Max	2.82	2.44	1.81	2.37	2.12	3.02	2.50	2.20

* Not included in analytical mean

Z-Values

Each individual z-value represents the decimal number of standard deviations by which an analytical result differs from the "true value", as represented by the mean. The minimum or "perfect" z-value is thus 0.00. Proficiency in any one analysis over a year's time (m bimonthly results) is determined by their mean z-value plus a penalty for each outlier (*) reported, if any. Proficiency in a series is determined by the mean of the mean z-values (including penalties, if any) for the specified principal analyese in that series. In general, z-values of less than 2.00, consistently maintained and thus averaging less than 2.00 over a year for a series (including outlier penalties, if any), are considered to represent satisfactory accuracy and precision. On the same basis, values of less than 1.00 consistently maintained represent outstanding accuracy and precision.

A detailed description of this rating system is available upon request from AACC headquarters.