

| <i>Subscriber Number</i> | <i>Moisture Z-Values</i> | <i>Protein Z-Values</i> | <i>Ash Z-Values</i> | <i>pH Z-Values</i> | <i>Falling Number Z-Values</i> |
|------------------------------|------------------------------|-----------------------------|-------------------------|------------------------|------------------------------------|
| 23 | 0.71 | 0.27 | 0.64 | 0.55 | 0.61 |
| 62 | 0.25 | 0.99 | | | |
| 116 | 0.22 | 0.05 | 0.32 | | 0.55 |
| 164 | 0.19 | 0.44 | 1.36 | 0.51 | 1.84 |
| 191 | 1.29 | 0.22 | 0.19 | 0.84 | |
| 193 | 1.20 | 0.22 | 0.03 | 0.33 | 0.46 |
| 242 | 0.25 | 0.11 | 0.51 | 2.87 | 0.37 |
| 274 | 0.58 | 0.71 | 0.07 | 0.37 | 1.01 |
| 325 | 1.12 | 1.53 | | 2.78 | |
| 378 | 0.71 | 0.22 | 0.27 | 0.75 | |
| 481 | 0.85 | 0.77 | 0.61 | 0.84 | 1.41 |
| 512 | 0.52 | 2.36 | 1.86 | 1.11 | 1.17 |
| 519 | 0.03 | 2.68 | 1.96 | 0.32 | 1.53 |
| 589 | 1.53 | 0.11 | 0.03 | 0.04 | 1.87 |
| 593 | 2.24 | 1.26 | 0.98 | | |
| 603 | 0.03 | 0.33 | 1.24 | 0.32 | 0.74 |
| 607 | 0.08 | 0.38 | 0.45 | 0.65 | 0.76 |
| 649 | 0.05 | 0.38 | 0.22 | 2.41 | 0.92 |
| 653 | 0.24 | 0.44 | 0.30 | 0.61 | |
| 654 | 0.90 | 0.22 | 0.07 | 1.11 | |
| 655 | 0.95 | 1.31 | 0.14 | 1.30 | |
| 662 | 0.14 | 1.20 | 0.59 | 0.51 | 1.22 |
| 750 | 1.39 | 0.22 | 0.50 | 0.28 | |
| 769 | 0.63 | 1.42 | 0.01 | 0.32 | 0.33 |
| 771 | 0.57 | 1.42 | 1.05 | 1.53 | |
| 812 | 0.30 | 0.88 | 0.01 | 0.61 | 0.03 |
| 1020 | 0.90 | 1.10 | 0.32 | 0.84 | 0.55 |
| 1056 | 0.13 | 1.92 | 1.30 | 0.84 | 1.65 |
| 1308 | 1.23 | 0.11 | 1.57 | | 0.55 |
| 1326 | 0.66 | 0.16 | 1.21 | 0.23 | 0.67 |
| 1338 | 1.89 | | * 5.64 | * 0.78 | |
| 1352 | 1.67 | 0.71 | 0.63 | 0.24 | 0.19 |
| 1369 | 0.69 | 0.05 | 0.01 | 0.09 | 0.55 |
| 1395 | 0.87 | 0.05 | | 0.61 | 0.00 |
| 1427 | 0.79 | 0.27 | 0.82 | 0.18 | 0.79 |
| 1451 | 0.25 | | | | |
| 1577 | 0.85 | 1.04 | 2.60 | 0.09 | |
| 1601 | 1.80 | 0.16 | 2.27 | 0.42 | 0.37 |
| 1641 | 0.25 | 0.93 | 0.71 | 0.28 | 1.04 |
| 1678 | 1.47 | 0.60 | 0.19 | 0.23 | |
| 1684 | 2.21 | 1.04 | 1.30 | 0.51 | 1.35 |
| 1711 | 0.19 | 1.48 | 0.25 | 0.18 | |

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|------------------------------|------------------------------|-----------------------------|-------------------------|------------------------|------------------------------------|
| N | 42 | 40 | 37 | 37 | 27 |
| Mean | 0.78 | 0.74 | 0.72 | 0.72 | 0.84 |
| Min | 0.03 | 0.05 | 0.01 | 0.04 | 0.00 |
| Max | 2.24 | 2.68 | 2.60 | 2.87 | 1.87 |

* 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 (6 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), 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 is available upon request from AACC headquarters.

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