

| <i>Subscriber Number</i> | <i>Moisture Z-Values</i> | <i>Protein Z-Values</i> | <i>Ash Z-Values</i> | <i>Fat (EE) Z-Values</i> | <i>Fat (AH) Z-Values</i> | <i>Fiber Z-Values</i> | <i>Calcium Z-Values</i> | <i>Phosphorus Z-Values</i> |
|--------------------------|--------------------------|-------------------------|---------------------|--------------------------|--------------------------|-----------------------|-------------------------|----------------------------|
| 9 | 0.96 | 1.67 | 0.16 | 0.20 | 1.98 | 0.34 | 0.97 | 2.07 |
| 48 | 0.54 | 1.10 | 0.09 | | 0.48 | | 0.50 | 1.18 |
| 67 | 0.06 | | | 0.30 | | | | |
| 183 | 0.76 | 0.24 | | 1.82 | | | | |
| 242 | 0.76 | 0.84 | 1.09 | 0.11 | | 0.58 | 0.35 | 0.07 |
| 362 | 0.83 | 0.90 | 0.92 | 0.14 | | 1.36 | | |
| 405 | 0.60 | 0.15 | 0.42 | | 0.60 | 1.10 | | |
| 407 | 0.58 | 0.20 | 0.78 | | 0.54 | 1.01 | | |
| 408 | 1.36 | 0.35 | 0.44 | | 0.49 | 0.14 | | |
| 485 | 0.24 | 0.24 | | 0.33 | | | | |
| 488 | 1.65 | 0.05 | | 0.05 | | | 0.65 | 1.57 |
| 567 | 0.58 | 0.17 | 0.44 | 0.43 | 0.14 | 0.34 | 1.23 | 0.57 |
| 641 | 0.70 | 0.31 | | * 3.88 | | 1.62 | 1.79 | |
| 689 | 0.58 | 2.31 | 1.42 | 0.54 | | 2.25 | 0.80 | 0.32 |
| 735 | 0.03 | 0.71 | 0.73 | 0.04 | | 0.82 | | |
| 828 | 2.18 | 0.21 | 1.67 | | | | | |
| 1326 | 0.01 | 2.16 | 2.36 | 0.05 | * 4.48 | 0.23 | 0.51 | |
| 1339 | 0.37 | 0.29 | 0.27 | 1.02 | | | | |
| 1399 | 0.51 | * 3.93 | * 3.44 | 0.27 | | | | |
| 1452 | 0.58 | 0.93 | 1.45 | 1.00 | | 0.40 | 0.51 | 0.18 |
| 1550 | 0.39 | 0.53 | 1.02 | 2.67 | | | | |
| 1559 | 0.10 | 0.13 | 0.80 | 0.03 | | * 13.35 | | |
| 1601 | 1.90 | 0.17 | 0.09 | 2.41 | 0.97 | 0.16 | 0.47 | 0.04 |
| 1656 | 0.16 | * 4.41 | 0.30 | 0.01 | | 0.95 | | 0.57 |
| 1660 | 0.16 | 1.29 | 0.37 | 0.23 | | 0.71 | 0.94 | 0.32 |
| 1716 | 2.67 | 1.89 | * 16.68 | 0.88 | | * 7.37 | 1.50 | * 4.06 |
| 1719 | 0.03 | 0.06 | 0.88 | 0.18 | | 0.58 | | |
| N | 27 | 24 | 20 | 21 | 7 | 16 | 12 | 10 |
| Mean | 0.71 | 0.70 | 0.79 | 0.61 | 0.74 | 0.79 | 0.85 | 0.69 |
| Min | 0.01 | 0.05 | 0.09 | 0.01 | 0.14 | 0.14 | 0.35 | 0.04 |
| Max | 2.67 | 2.31 | 2.36 | 2.67 | 1.98 | 2.25 | 1.79 | 2.07 |

* 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-values 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 z-values (including penalties, if any) for the specified principal analyses 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.

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