



Analyte PT For All Labs
 Sample # 240631
 32-0-0 UAN Solution

Magruder Fertilizer Proficiency Testing Program
Nitrogen Select PT Scheme
Statistical Summary

Analytes: 8
 # Labs Reporting: 11
 Issue Date : 07/31/2024

Analyte Code	Analyte Sample # 240631	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Analyte IA Ratio	Average Range (R-bar)	Horwitz %RSD
001	Ammoniacal N (%)	4	4	7.532	0.0724	7.532		0.0724	0.0453	0.96%		0.0263	2.95%
002	Nitrate N (%)	1		8.005									
005	Urea N (%)	2	2	17.61	0.0955								
007	Urea (%)	1		15.75									
008	Biuret (%)	2	2	0.6475	0.4278								
010	Total N (32%)	9	9	32.70	0.8363	32.53	0.8800	0.3914	0.1631	1.20%	1.04	0.2588	1.75%
060	Water (Free) (%)	1		7.810									
101	Acid Soluble Ca (%)	1		18.07									

The Analyte IA Ratio = 2.33 * Robust SD / IA at the Analyte Assigned Value. IA ratios of 1 and less indicate participant data dispersion is as good or less than the IA. Red indicates the IA ratio is significantly greater than 1, Orange indicates marginally greater than 1, Green indicates IA ratio is not significantly greater than 1 and Grey indicates < 6 labs reporting. The Horwitz %RSD is calculated using the Thompson Modification, Analyst,2000,125,385-386.



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Lab Values

Issue Date : 07/31/2024

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
001	Ammoniacal N (%)	0220	7.435	0.0100	7.532	0.0724	0.0263	4	-1.33	001.99	0
001	Ammoniacal N (%)	0405	7.520	0.0200	7.532	0.0724	0.0263	4	-0.16	001.99	0
001	Ammoniacal N (%)	0547	7.572	0.0350	7.532	0.0724	0.0263	4	0.55	001.10	0
001	Ammoniacal N (%)	0593	7.600	0.0400	7.532	0.0724	0.0263	4	0.94	001.99	0
002	Nitrate N (%)	0547	8.005	0.0100				1		002.99	0
005	Urea N (%)	0405	17.55	0.0700				2		005.99	0
005	Urea N (%)	0547	17.68	0.0400				2		005.99	0
007	Urea (%)	0220	15.75	0.0000				1		007.20	0
008	Biuret (%)	0220	0.3450	0.0100				2		008.99	0
008	Biuret (%)	0405	0.9500	0.0200				2		008.10	0
010	Total N (32%)	0615	31.85	0.3000	32.53	0.3914	0.2588	9	-1.59	010.99	0
010	Total N (32%)	0494	32.21	0.5800	32.53	0.3914	0.2588	9	-0.74	010.60	0
010	Total N (32%)	0561	32.36	0.3400	32.53	0.3914	0.2588	9	-0.39	010.60	0
010	Total N (32%)	0055	32.43	0.4400	32.53	0.3914	0.2588	9	-0.24	010.60	0
010	Total N (32%)	0220	32.54	0.1000	32.53	0.3914	0.2588	9	0.04	010.60	0
010	Total N (32%)	0405	32.59	0.0300	32.53	0.3914	0.2588	9	0.14	010.60	0
010	Total N (32%)	0586	32.76	0.0300	32.53	0.3914	0.2588	9	0.54	010.60	0
010	Total N (32%)	0040	32.80	0.0000	32.53	0.3914	0.2588	9	0.65	010.60	0
010	Total N (32%)	0593	34.80‡	0.2500	32.53	0.3914	0.2588	9	5.35	010.60	0
060	Water (Free) (%)	0586	7.810	0.3000				1		060.99	0
101	Acid Soluble Ca (%)	0042	18.07	0.8900				1		101.99	0

Interpreting Z Scores and Flags:

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier, 3 = removed from stats, 4 = rejected due to 0s submitted and 5 = LOD. A 9 flag indicates a data problem - scores not calculated.

Notes:

*Robust statistics not used if < 6 labs used in calculations, in this case Values and Z Scores are grayed out and should be interpreted with extreme caution. Identical duplicates not included in calculation of Rob R-bar. Your offset values are higher (‡) or lower (†) than the Robust Analyte value ± Investigational Allowance. Analyte codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.