NAPT Program — North American Proficiency Testing

Soil Science Society of America

# 2019 North American Proficiency Testing Program
## Quarter 4 Plant Report - Wednesday, January 8, 2020

**Laboratory ID**
General

| Plant | | | Plant 2019-210 | | | Plant 2019-211 | | | Plant 2019-212 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis** | **Units** | ***n*** | **Median** | ***MAD*** | **Lab[1,2]** | **Median** | ***MAD*** | **Lab[1,2]** | **Median** | ***MAD*** | **Lab[1,2]** |
| **Nutrient Ions** | | | | | | | | | | | |
| Dry Matter (%) | % | 22 | **95.1** | *0.605* | | **92.7** | *0.615* | | **91.6** | *0.598* | |
| NO3 - N Cd Rd. | mg/kg | 25 | **36.0** | *07.3* | | **243** | *50.0* | | **20.0** | *4.48* | |
| NO3 - N ISE | mg/kg | 3 | **166** | *30.0* | | **331** | *82.7* | | **69.0** | *19.0* | |
| NO3 - N Other | mg/kg | 4 | **111** | *65.0* | | **278** | *10.0* | | **85.2** | *45.2* | |
| NH4-N | mg/kg | 3 | **121** | *65.0* | | **104** | *82.9* | | **412** | *148* | |
| PO4 - P | mg/kg | 10 | **1,410** | *89.0* | | **602** | *100* | | **1,030** | *71.3* | |
| SO4 - S | mg/kg | 4 | **607** | *58.2* | | **466** | *12.3* | | **850** | *65.5* | |
| Cl | % | 19 | **0.280** | *0.020* | | **0.270** | *0.021* | | **0.105** | *0.014* | |
| TKN | % | 7 | **2.58** | *0.080* | | **2.67** | *0.090* | | **2.43** | *0.090* | |
| N- Dry Comb. | % | 64 | **2.70** | *0.059* | | **2.77** | *0.060* | | **2.44** | *0.055* | |
| S- Dry Comb. | % | 9 | **0.160** | *0.006* | | **0.203** | *0.017* | | **0.260** | *0.010* | |
| | | | | | | | | | | | |
| **Nitric / Perchloric** | | | | | | | | | | | |
| P | % | 26 | **0.258** | *0.013* | | **0.130** | *0.006* | | **0.218** | *0.009* | |
| K | % | 28 | **2.91** | *0.115* | | **2.15** | *0.101* | | **0.778** | *0.030* | |
| Ca | % | 28 | **1.19** | *0.060* | | **3.24** | *0.150* | | **2.27** | *0.088* | |
| Mg | % | 28 | **0.343** | *0.017* | | **0.690** | *0.028* | | **0.488** | *0.018* | |
| S | % | 27 | **0.150** | *0.010* | | **0.199** | *0.016* | | **0.244** | *0.014* | |
| Na | % | 23 | **0.019** | *0.002* | | **0.027** | *0.002* | | **0.019** | *0.001* | |
| Al | mg/kg | 17 | **20.4** | *4.24* | | **136** | *18.2* | | **155** | *26.7* | |
| B | mg/kg | 24 | **22.3** | *1.27* | | **42.4** | *2.50* | | **204** | *12.9* | |
| Zn | mg/kg | 28 | **19.0** | *1.06* | | **25.1** | *2.00* | | **61.5** | *3.00* | |
| Mn | mg/kg | 28 | **39.0** | *2.25* | | **70.5** | *3.17* | | **133** | *5.07* | |
| Fe | mg/kg | 28 | **60.1** | *5.14* | | **183** | *13.2* | | **271** | *13.2* | |
| Cu | mg/kg | 28 | **8.09** | *0.865* | | **6.57** | *0.816* | | **20.0** | *1.11* | |
| Mo | mg/kg | 9 | **0.900** | *0.100* | | **0.093** | *0.008* | | **0.430** | *0.095* | |
| **Nitric / Peroxide- MICROWAVE** | | | | | | | | | | | |
| P | % | 34 | **0.260** | *0.010* | | **0.136** | *0.006* | | **0.224** | *0.008* | |
| K | % | 34 | **2.93** | *0.088* | | **2.16** | *0.080* | | **0.804** | *0.041* | |
| Ca | % | 34 | **1.17** | *0.040* | | **3.22** | *0.085* | | **2.30** | *0.085* | |
| Mg | % | 34 | **0.340** | *0.011* | | **0.691** | *0.022* | | **0.491** | *0.019* | |
| S | % | 32 | **0.155** | *0.005* | | **0.200** | *0.010* | | **0.260** | *0.010* | |
| Na | % | 29 | **0.017** | *0.002* | | **0.027** | *0.003* | | **0.018** | *0.002* | |
| Al | mg/kg | 24 | **30.7** | *4.15* | | **193** | *42.9* | | **247** | *55.7* | |
| B | mg/kg | 34 | **22.0** | *1.16* | | **45.0** | *2.45* | | **217** | *9.51* | |
| Zn | mg/kg | 33 | **18.9** | *0.900* | | **25.5** | *1.81* | | **63.0** | *3.00* | |
| Mn | mg/kg | 34 | **40.0** | *1.15* | | **69.5** | *2.52* | | **132** | *6.29* | |
| Fe | mg/kg | 34 | **66.2** | *4.60* | | **193** | *12.6* | | **286** | *20.6* | |
| Cu | mg/kg | 34 | **8.00** | *0.405* | | **6.50** | *0.500* | | **19.7** | *1.09* | |
| Mo | mg/kg | 15 | **0.901** | *0.101* | | **0.089** | *0.011* | | **0.400** | *0.050* | |
| | | | | | | | | | | | |
| **Dry Ash** | | | | | | | | | | | |
| P | % | 12 | **0.260** | *0.012* | | **0.125** | *0.015* | | **0.230** | *0.010* | |

1 - Values flagged exceed Warning Limits " * " 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " 4 x MAD.
2 - Limits not compared to lab data for methods with less than 7 labs reporting.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **K** | % | 12 | **2.94** | *0.115* | | **2.13** | *0.120* | | **0.745** | *0.110* |
| **Ca** | % | 12 | **1.18** | *0.045* | | **3.16** | *0.135* | | **2.30** | *0.140* |
| **Mg** | % | 12 | **0.350** | *0.010* | | **0.700** | *0.050* | | **0.500** | *0.030* |
| **Na** | % | 11 | **0.030** | *0.007* | | **0.032** | *0.002* | | **0.020** | *0.001* |
| **Al** | mg/kg | 4 | **39.8** | *8.32* | | **181** | *12.1* | | **200** | *16.5* |
| **B** | mg/kg | 11 | **22.6** | *2.16* | | **43.3** | *2.83* | | **195** | *12.7* |
| **Zn** | mg/kg | 12 | **19.3** | *2.23* | | **26.0** | *1.76* | | **54.5** | *4.87* |
| **Mn** | mg/kg | 12 | **41.0** | *1.46* | | **69.4** | *3.95* | | **123** | *8.76* |
| **Fe** | mg/kg | 12 | **69.0** | *5.44* | | **176** | *13.0* | | **251** | *36.6* |
| **Cu** | mg/kg | 12 | **8.90** | *0.890* | | **7.44** | *1.29* | | **15.8** | *1.64* |
| **Mo** | mg/kg | 3 | **1.37** | *0.046* | | **0.615** | *0.385* | | **0.897** | *0.203* |

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