



15 January 2015

To: Participants of the 2014 North American Proficiency Testing Program

From: John Lawley and Grant Cardon, in cooperation with the NAPT Oversight Committee

Re: Results of 1st, 2nd, 3rd and 4th Quarter Exchange 2014

Thanks to all participating laboratories for your cooperation in completing these analyses in a timely manner and contributing to the success of the NAPT program.

For the 2014 year, 153 labs were enrolled in the NAPT program, with 153 labs submitting results. These included 151 labs providing soil results, 90 labs providing plant results, 32 labs providing water results, and 15 labs providing environmental soils results. Again, thank you to the labs providing results.

The NAPT Program uses the median and median absolute deviation (MAD) as robust estimators of central values and variance for all data sets. This statistical approach is less sensitive to the influence of extreme values (outliers) than using the mean and standard deviation. The report lists each soil across the page, with the number of labs submitting results, median, MAD, and individual lab results for each soil. Warning Limits are set at $\pm 2.5 \times \text{MAD}$ (marked as *, plus H or L for High or Low) and Control Limits at $\pm 4 \times \text{MAD}$ (marked as **, plus H or L for High or Low).

The materials used in the **1st Quarter 2014 NAPT Program** were:

Soil sample ID **2014-101**, **Captina** is a Captina Silt Loam (Fine silty, siliceous, active, mesic typic Fragiudults) from University of Arkansas Agronomy Farm, Washington County, AR provided by Nancy Wolf, Agriculture Diagnostic Laboratory – University of Arkansas, Fayetteville AR.

Soil sample ID **2014-102**, **Keyport** is a Keyport Silt Loam (Fine, mixed, semiactive, mesic aquic Hapludults) from the University of Delaware Agronomy Farm, New Castle County DE, provided by Karen Gartley, University of Delaware Soil Testing Lab, Newark DE.

Soil sample ID **2014-103**, **Marsh** is a Trenton Silty Clay Loam (Fine, mixed, superactive, mesic Typic Natrixerolls) from the Chase Farm, Cache County UT provided by John Lawley and Gordon Chase, Utah State University, Logan UT.

Soil sample ID **2014-104**, **Bernhill** is a Bernhill Ashy Silt Loam (Fine loamy, isotic, mesic Vitrandic Haploxeralfs) from Spokane County WA provided by Brent Thyssen, SoilTest Farm Consultants, Moses Lake WA.

Soil sample ID **2014-105**, **Galen** is a Grangeville fine Sandy Loam (Coarse-loamy, mixed, superactive, thermic Fluvaquent Haploxerolls) from the Harvey Ranch, Fresno County CA provided by John Lawley, Utah State University, Logan UT and Galen Harvey, Harvey Ranch, Sanger CA.

Plant sample ID **2014-201**, **Tall Fescue** (*Festuca arundinacea*) from the Utah State University Greenville Farm was provided by John Lawley, Utah State University, Logan UT

Plant sample ID **2014-202**, **Tomato Leaves** (*Solanum lycopersicum*) from the Utah State University Greenville Farm was provided by John Lawley, Utah State University, Logan UT

Plant sample ID **2014-203**, **Strawberry** (*Fragaria × ananassa*) from the Utah State University Greenville Farm was provided by John Lawley, Utah State University, Logan UT.

Water sample ID **2014-301**, is a water from Coal Creek, Cedar City, Iron County, UT provided by Jeff Banks, Utah State University Extension.

Water sample ID **2014-302**, is a water from Laramie River, Laramie, Albany County, WY provided by John Lawley, Utah State University.

Water sample ID **2014-303**, is a water from the Nephi Canal, Nephi, Juab County, UT provided by Chad Ried, Utah State University Extension.

The materials used in the **2nd Quarter 2014 NAPT Program** were:

Soil sample ID **2014-106**, **Port** is a Port fine Sandy Loam (Fine silty, mixed, superactive, thermic Cumulic Haplustolls) from the Ecology Center at Oklahoma University of Science and Art, Grady County, OK, provided by Jason Shaw, Oklahoma University of Science and Art, Chickasha OK.

Soil sample ID **2014-107**, **Delhi** is a Delhi Loamy Sand (Mixed, Thermic Typic Xeropsamments) from, Fresno County CA, provided by Nat Dellavalle, Dellavalle Laboratories, Fresno CA.

Soil sample ID **2014-108**, **Mutt** is a blend of soils from previous soils ran through the NAPT Program.

Soil sample ID **2014-109**, **Reading** is a Reading Silty Clay Loam (Fine-silty, mixed, superactive, mesic, Pachic Argiudolls) from the Kansas State University Agronomy Farm, Riley County KS provided by Dave Mengel and Gary Harter, Kansas State University, Manhattan KS.

Soil sample ID **2014-110**, **Newark** is a Keyport Silt Loam (Fine, mixed, semiactive, mesic aquic Hapludults) from the University of Delaware Agronomy Farm , New Castle County DE, provided by Karen Gartley, University of Delaware Soil Testing Lab, Newark DE

Plant sample ID **2014-204**, **Pepper Leaves** (*Capsicum annuum*) from the Utah State University Greenville Farm was provided by John Lawley, Utah State University, Logan UT

Plant sample ID **2014-205**, **Green Beans** (*Medicago sativa*) from the Utah State University Greenville Farm was provided by John Lawley, Utah State University, Logan UT.

Plant sample ID **2014-206**, **Tall Fescue** (*Festuca arundinacea*) from the Utah State University Greenville Farm was provided by John Lawley, Utah State University, Logan UT

Water sample ID **2014-304**, is a water from a center pivot at the Tim Marshall farm, Cedar City, Iron County, UT provided by Jeff Banks, Utah State University Extension.

Water sample ID **2014-305**, is a water from an irrigation ditch at a Colorado State University Farm outside of Wellington, Larimer County, CO provided by Troy Bauder, Colorado State University, Fort Collins CO.

Water sample ID **2014-306**, is a water from the Southern Utah University Plot Well, Iron County, UT provided by Dean Winward, Southern Utah University, Cedar City UT.

The materials used in the **3rd Quarter 2014 NAPT Program** were:

Soil sample ID **2014-111**, **Satanta** is a Satanta loam (Fin-loamy, mixed, superactive, mesic Aridic Argiustolls) from Colorado State University Horticulture Farm, Larimer County, CO provided by Troy Bauder, Colorado State University, Fort Collins CO.

Soil sample ID **2014-112**, **Tony** is a Tillman Loam (Fine, mixed, superactive, thermic Vertic Paleustolls) from Willbarger County TX provided by Tony Provin, Soil, Water & Forage Testing Lab, Texas A&M University, College Station TX.

Soil sample ID **2014-113**, **Culleoka** is a Culleoka Silt Loam (Fine-loamy, mixed, active, mesic, Ultic Hapludalfs) from University of Virginia Farm, Monongalia County WV provided by James Thompson, University of West Virginia, Morgantown WV

Soil sample ID **2014-114**, **Karen** is a Keyport Silt Loam (Fine, mixed, semiactive, mesic aquic Hapludults) from the University of Delaware Agronomy Farm, New Castle County DE, provided by Karen Gartley, University of Delaware Soil Testing Lab, Newark DE

Soil sample ID **2014-115**, **Zamora** is a Zamora Silt Loam (Fine-silty, mixed, superactive, thermic Mollic Haploxeralfs) from the University California-Davis Agronomy Farm, Yolo County, CA provided by Dirk Hostlege, University California-Davis Analytical Lab, Davis CA.

Plant sample ID **2014-207**, **Pistachio Leaves** (*Pistacia vera*) was provided by Scott Fridland, Dellavalle Laboratory, Fresno CA.

Plant sample ID **2014-208**, **Tall Fescue** (*Festuca arundinacea*) from the Utah State University Greenville Farm was provided by John Lawley, Utah State University, Logan UT.

Plant sample ID **2014-209**, **Green Beans** (*Phaseolus vulgaris*) from the Utah State University Greenville Farm was provided by John Lawley, Utah State University, Logan UT.

Water sample ID **2014-307**, is a water from the Kings River, east of Sanger CA provided by John Lawley, Utah State University, Logan UT.

Water sample ID **2014-308**, is a water from a canal at the Utah State University Drainage Farm, Logan UT provided by John Lawley, Utah State University, Logan UT.

Water sample ID **2014-309**, is a water from a well in Porterville, Tulare County CA provided by Scott Fridland, Dellavalle Laboratory, Fresno CA.

The materials used in the **4th Quarter 2014 NAFT Program** were:

Soil sample ID **2014-116**, **Moody** is a Moody Silty Clay Loam (Fin-silty, mixed, superactive, mesic Udic Haplustolls) from Barber/Johnson Farm, Minnehaha County, SD provided by Mike Barber, AgLab Express, Sioux Falls SD.

Soil sample ID **2014-117**, **Beaverton** is a Beaverton Loam (Loamy-skeletal over sandy or sandy-skeletal, mixed, superactive, frigid Typic Argiustolls) from the Lutz Farm in Gallatin County MT provided by Stephanie Ewing and Clain Jones, Montana State University, Bozeman MT.

Soil sample ID **2014-118**, **Veggie** is a Keyport Silt Loam (Fine, mixed, semiactive, mesic aquic Hapludults) from the University of Delaware Agronomy Farm, New Castle County DE, provided by Karen Gartley, University of Delaware Soil Testing Lab, Newark DE

Soil sample ID **2014-119**, **Smolan** is a Smolan Silt Loam (Fine, smectitic, mesic Pachic Argiustolls) from the Kansas State University Agronomy Farm, Riley County KS provided by Dave Mengel and Gary Harter, Kansas State University, Manhattan KS.

Soil sample ID **2014-120**, **Jacket** is a Wetherill Loam (Fine-silty, mixed, superactive, mesic, Aridic Haplustalfs) from the Colorado State university Yellow Jacket Farm in Yellow Jacket County, CO provided by John Lawley and Grant Cardon, Utah State University, Logan UT

Plant sample ID **2014-210**, **Tall Fescue** (*Festuca arundinacea*) from the Utah State University Greenville Farm was provided by John Lawley, Utah State University, Logan UT.

Plant sample ID **2014-211**, **Walnut Leaf** (*Juglans regia*) was provided by Scott Fridland, Dellavalle Laboratory, Fresno CA.

Plant sample ID **2014-212**, **Potato Petiole** (*disambiguation*) was provided by Brent Thyssen, SoilTest Farm Consultants, Moses Lake WA.

Water sample ID **2014-307**, is a water from Springhill Creek, Lutz Farm in Gallatin County MT provided by Stephanie Ewing and Clain Jones, Montana State University, Bozeman MT.

Water sample ID **2014-308**, is a water from a well at the Nat Dellavalle Farm, Fresno CA provided by Nat Dellavalle and Scott Fridlund, Dellavalle Laboratory, Fresno CA

Water sample ID **2014-309**, is a water from Slipup Creek in Sioux Falls, SD provided by John Lawley and Bob Clawson, Utah State University, Logan UT