

As the monitoring year winds down and we get ready for the change from fall to winter, SELT's Stewardship Department will be getting ready for another change as well.

After four-and-a-half years, Dani Almeida will be leaving her position as SELT's Conservation Easement Steward to move on to her next adventure. We are so grateful for the contributions Dani has made during the last several years with us, including spending many of her days walking conserved lands with all of you. We will



Dani Almeida, pictured at the Hallett Conservation Easement in Dover, NH. COURTESY PHOTO

miss having her around, but we wish her all the best! As we work to find a new Stewardship Department staff member to fill her role, please reach out to me directly with any questions or concerns you have regarding your conserved land. I can be reached at dgoard@seltnh.org or 603-658-9721.

Best wishes,

Deborah Goard Stewardship Director

# Soil Testing for Healthy Soils and Plants

ost of us have experienced the disappointment of growing unhealthy plants. With the excitement of spring we prepare fields and beds and sow seeds. Weeks later, plants start to sprout up, but oh no! They don't look too good with wilted, yellowish and small leaves. You ask yourself what could be wrong? Are my plants getting enough sun? Are they getting enough water? Did I plant too early? It could be one of those reasons or it could be the soil. A soil test may be just what you need to get to the bottom of your problem and provide you the necessary information to make your soil healthy and your plants happy and productive.

#### What makes a soil healthy?

end Good

Healthy soil is essential to growing healthy plants. Whether you have a twenty-acre hayfield or a 20-square-foot vegetable garden, your plants need soil to grow and healthy soil to be most productive. Healthy soil contains adequate nutrients, optimum pH and organic matter. Not only that, but the soil needs to have good physical and biological characteristics that allow it to both retain water and drain well and be able to release nutrients to the plants.

Plants, through their appearance, are often a good indicator of soil health. If, by the looks of things, your plants are not happy, it might be time to get to the root of the problem with a soil test.

FALL 2019 ISSUE 15

continued on page 2

#### Soil Testing continued from page 1

#### Why test your soil?

You could attempt to guess about fertilizer and lime needs. But that's not recommended. Too little fertilizer may produce small, weak, and unfruitful plants. On the other hand, too much fertilizer or lime can actually harm plants, be wasteful, and pollute our wetlands, streams and lakes. Sometimes the soil doesn't need lime or fertilizer at all and just needs more organic matter. A soil test takes the guesswork out of the problem.

A soil test will tell you exactly what your soil needs and how much fertilizer or lime to add. Soil testing is available locally through UNH Cooperative Extension and Cornell University with technical support available through the Natural Resources Conservation Service (NRCS).

## How to test your soil UNH Soil Testing

At around \$17 per test, UNH Cooperative Extension offers affordable and simple soil testing. Following basic instructions provided by UNH, landowners collect soil samples from their property, fill out the request forms, and then mail

them in with the payment. The soil testing lab will then test your soil for the quantity of nutrients and their availability for plant uptake. Within weeks, results are sent to you along with recommendations on how much lime or fertilizer needs to be added, tailored specific to the plants and crops you are growing or plan to grow. Download the form:

#### extension.unh.edu/programs/soil-testing-services

#### Cornell Assessment of Soil Health

Another option for soil testing is the Comprehensive Assessment of Soil Health developed by Cornell University. This soil test assesses not only the chemical make-up of your soil, but also its physical and biological characteristics such as compacted soil and organic matter content. Although this test is more expensive at \$100 to \$200, you will get a lot of helpful information from the test results, including management suggestions to address the problems with your soil. For example, using cover cropping to increase organic matter and improve water retention. The procedure for collecting and sending soil samples to Cornell is similar to the UNH test, but with an additional step of

continued on page 3

#### Soil Successes

Soil testing has proven helpful to many farmers around southeast New Hampshire.

#### Monahan Farm, East Kingston

Jeff Walker has years of experience farming with crops including strawberries, blueberries, peaches, and squash. Over the years, he has sent his soil in many times to UNH to be tested. The results he got back almost always recommended lime be added and told him the exact amount to apply. Nowadays, he is keeping better track of when he has added lime to which field and how much. If something looks off with his plants, and acidity doesn't seem to be the issue, he doesn't hesitate to send his soil to be tested.

Monahan Farm. CREDIT: SELT STAFF



#### Tonry Tree Farm, Hampton Falls

Soil testing is also important when growing non-edible plants. Since 1964, Tonry Tree Farm has been growing Christmas trees. With over 100 acres of Christmas trees it is critical to the family business that the trees are healthy. Although not prompted by unhealthy looking trees, last spring Alice Tonry decided it was time to test the soil at the farm. She took samples from different fields around the property and sent the samples into UNH to be tested. The results indicated what nutrients were low in the soil, what fertilizer to add, and how much. She plans to use the results to inform future tree planting.

Tonry Tree Farm. CREDIT: PAULA SINGER



# More than an Eyesore

Old gravel pits are not known for their aesthetic appeal. At first glance, they might even be considered ugly. Perhaps ugly is useful.

Mike Marchand, Certified Wildlife Biologist with the New Hampshire Fish and Game Department agrees, "There's more to sand and gravel pits than a wasteland...there's more than the scars. The pits represent a unique habitat for wildlife, especially when near ponds, streams, and wetlands."

A recent report from The Wildlife Society, titled "Managing Reclaimed Sand and Gravel Mines" affirms Mike's observations. The report found that "[Gravel pits] also contain areas with brushy edges, bare and dry ground, relatively high ground temperatures, flowering annuals and perennials, limited tall trees, boulder piles and rocky outcrops that are important to many species." These species may include turtles, snakes, shrubland birds like warblers and sparrows, as well as bees and other pollinators.

Through the reclamation of a gravel pit, critical habitats can be created or maintained. State and local reclamation guidelines address safety, erosion, water quality, and aesthetics. Some reclaimed pits are developed into housing lots, some are turned into grassy town parks, and some are designed to primarily benefit wildlife.

Reclamation for wildlife habitat doesn't always look pretty. Shrubland and young forests are hard to come by





Above: April 2, 2019 – During – Reducing the slope. PHOTO: JENNIFER PRIBBLE Below: May 31, 2019 – After – Slopes reduced, wetland created. PHOTO: PHIL AUGER

in southern New Hampshire, but they play an important role for many species as does the barren sandy, gravelly, sun-exposed land.

In the spring, SELT embarked on a plan to reclaim the retired gravel pit at the DeYoung-Fralic Conservation Area. Situated on the Exeter River in Brentwood, this property offered a chance to create habitat for rare or at-risk species. Guided by a plan developed by the US Natural Resources Conservation Service and with restoration funding from its Wetlands Reserve Program, the final plan balanced town needs and the concerns of our wildlife biologist consultants. One need was to reduce the slopes of the pit for public safety.

Once the slopes were reduced, and wetland was created, the land was seeded with two plants: oats (an annual) and little blue-stem grass (a native perennial). The oats provided help with more immediate erosion

control so that the native grass could take hold. Little bluestem is a grass that bunches. It is a natural fit for the sandy habitat, but it will not ever create a swath of lush green grass.

It might also seem messy to leave cut trees and branches from the work lying throughout, but they, too, serves a purpose for native creatures who need cover to protect them from predators or the sun in the height of the summer.

So, keep in mind, that not all conservation is pretty, but it does serve a purpose.

## Soil Testing continued from page 2

getting soil compaction readings using a tool called a penetrometer, which can be borrowed from Cornell – even here in New Hampshire. Learn more: **soilhealth.cals.cornell. edu/testing-services/** 

#### Not sure which soil test is best for you? NRCS can help

If you are not sure which soil test is right for you, contact your local NRCS field office. NRCS staff can meet with you and provide guidance on getting your soil tested, technical support in evaluating the health of your soil and land management recommendations to maintain healthy soil. Although not available yet, soon NRCS will offer its own soil health test to landowners. Like the Cornell assessment.

this test will evaluate the chemical, physical, and biological characteristics of your soil, but will be more affordable. Get advice: www.nrcs.usda.gov/wps/portal/nrcs/main/nh/soils/health

Whether you have noticed problems with your plants or not, gaining information about the health of your soils through a soil test can help you maintain healthy soil for optimum plant growth. Both UNH and NRCS recommend testing your soil every three years and fall is a great time to have your soil tested so you have time to make adjustments for next year's growing season.

So, what are you waiting for?



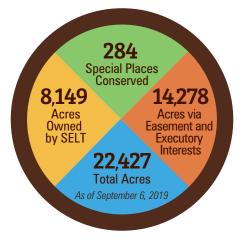
PO Box 675 Exeter, NH 03833
ADDRESS SERVICE REQUESTED



Soil Testing for Healthy Soils and Plants see page 1

Find ways to get outside with us this winter at seltnh.org/events-page

## Land Conservation by the Numbers



Thanks for doing your part to ensure these lands are permanently protected!

### Questions, Comments, Concerns?

To contact the Southeast Land Trust of New Hampshire, please call **603-778-6088** or email **info@seltnh.org**.

PO Box 675, Exeter, NH 03833 • Website: www.seltnh.org

SELT is a 501(c)(3) non-profit organization. Contributions are tax-deductible. *Everlasting* is published semi-annually and is the Easement Stewardship newsletter of SELT. Edited by Deborah Goard and Jennifer Pribble.

# Thinking of Selling Your Property?

More and more conserved land is selling – meaning there is a whole new generation of landowners who need to understand what a conservation easement is and the associated privileges and responsibilities. SELT can help make your sale smoother by working with your realtor to properly inform buyers about your conservation easement. Once you've decided to sell and have selected a realtor, please have him or her call us. We will provide an electronic packet of information to incorporate in your disclosures and can answer questions from buyers. Once you've scheduled a closing, please remember to give us the required notification of transfer of title in accordance with the terms of the easement.