



Lasdon Park Arboretum Heather Garden Expansion ??

By Mary Matwey

The following excerpts from email and formal correspondences relay the tentative expansion plans of the Heather Garden at Lasdon Park Arboretum in Katoneh, NY.

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From Ted Kozlowski to Donald Mackay, Pres. NEHS and garden liaison to Lasdon. :

Donald - Out of all the great volunteer groups associated here - you are the most dedicated and have consistently kept up with your commitments - we are honored to have you here. I would be very pleased to see the heather garden expand to the south in the entire pachysandra zone. Let's meet soon to plan it out. Thanks very much - Ted

Donald Mackay's reply

Dear Ted:

The Northeast Heather Society would be pleased to cooperate with you and your staff on a modest enlargement of the present site of the Heather Garden in Lasdon Park.

Two extensions are possible. One is to the north in a weedy area now largely occupied by spring bulbs; the second is to the south in an area entirely occupied by pachysandra. Since the second has a natural boundary in a flagstone path it is perhaps the better aesthetic choice. However, the northern extension would also be pleasing, extending the heathers to a rocky area. Both areas would require extensive preparation work, which NEHS is prepared to help undertake. However, you may decide a herbicide like RoundUp™ is needed, in which case we could not start work until you have arranged for its application.

Heather planting is best done in spring or autumn, and requires setting a date for assembly of a work party. Assuming you decide one or more applications of RoundUp™ is necessary to clear a site, the work of the NEHS work party obviously cannot begin until you declare the site is available to us.

If we wish to take a chance with the weather and cope with the inevitable frost-heaving of un-established plants over the winter, we could probably arrange to assemble an NEHS crew as late as the first week of October. A spring date would be rather better and give us more time to plan, but late fall is a possibility if at least one of the sites has been cleared.

We are delighted that the Heather Garden has become a valued feature at Lasdon and will be glad to help expand it once an extended area is agreed on and cleared. -Donald

April 2013, NEHS Board meeting discussion

This tentative expansion plan was discussed at the April 2013, NEHS Board meeting at Fort Tryon Park. All board members were supportive of the idea and agreed that a spring planting would be the best time, preferably mid-May. To allow for our heather nursery members to participate in this event the board also agreed to schedule a mid-week work party to accomplish the task. Donald Mackay will communicate these recommendations to Ted Kozlowski and the dates for an NEHS, work party in spring, 2014.

As of this printing, no firm date is set but watch for the announcement and we hope you are able to join us.

Heather Honey

Most editors wonder if the articles and planning that go into producing a Newsletter is enjoyed, appreciated or with sincere hope even read. I'm not as bold as the current President of the NEHS, Donald Mackay, who once wrote an article with many grammatical errors just to see if he could get a response from anyone (don't know the results of that experiment).

I will doubt no more as I recently received a letter and an interesting article from a member that I'd like to share with you. A. L. of NH copied me an article, "Honey treatments studied", from **EQUIS magazine, Dec. 2013, issue #435; (Reference: Veterinary Journal, August 2013)** on research done at Glasgow Univ. on the ability of honey made by honey bees to inhibit bacterial growth of bacterial strains taken from equine wounds. The use of the natural, antimicrobial properties of honey on wounds has been known for centuries. The research appears quite in depth as it tested 29 different types of honey, from medicinal-grade to commercial store-bought against pathogens commonly found in equine wounds. The data showed that, overall, **Scottish heather honey** was most successful at inhibiting bacterial growth, proving effective against all the strains of bacteria. We all know heather is special !

A.L. thanked us for all efforts on behalf of the Society. Thank you, A.L.

Annual NEHS Meeting & Conference

August 15 thru 17, 2014

Hosting:

The North American Heather Society



Our home base will be the Hilltop Hotel and Conference Center*, 213 Taunton Avenue, Seekonk, Massachusetts for August 15 and 16, 2014. The hotel is on the Massachusetts border with Rhode Island, within easy drives to points along, and inland from, the coasts of both states.

We have a block of 15 rooms reserved at the rates of \$85 (standard) and \$95 (Deluxe).

Reservations: 508-336-8700 or 800-232-1772. Ask for the "Doyle block". The block rates will be held until July 15, but it is wise to book early for these rates in this area.

Outstanding garden tours such as a visit to the private garden of Andrew Grossman, owner of Andrew Grossman Landscape Design, are planned, and of course a visit to Sylvan Nursery, one of whose specialties is Heather, is on the docket. Ralph and Judy Doyle will open their home and gardens for Sunday brunch on August 17.

We hope you are as excited about these plans for the Annual Conference as we are. Let this conference be the opportunity for you to increase your support and re-ignite your enthusiasm for the Northeast Heather Society while renewing or making new friendships.

**DON'T BE PRUNED!
WE WOULD MISS YOU!**

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The Plus Side of Clay by Donald Mackay

In spite of my constant advocacy of sand as a soil amendment for heavy clay soils, I am not unaware of the benefits conferred by clay. It has been said that if it were not for clay there would not have been any agriculture, and to take it further, not much of any vegetation to feed the bottom of the food chain. In other words, early man could have been neither a hunter nor a gatherer and so could not have developed into a farmer, nor anything else for that matter.

Clay supplies the fertility to soil and does this by means of its unique chemical structure. There are many types of clay but most, if not all, share the mineral aluminum silicate as their base material, and contain the three commonest elements on earth, aluminum, silicon and oxygen.

Silicon and oxygen combine to form silicon oxide which occurs as either the mineral quartz or as broken down particles, sand. Sand, defined by insolubility in water and a particle size around a millimeter, can also be broken down rock of any kind, including lava and sea shells when found on sea beaches. Clay is also size-defined, the particles being a thousandth of the size of sand and at the limit of microscopic vision.

This small size muddles the question of solubility, since clay can disperse or seem to dissolve in water to form colloidal suspensions in which the chemistry of aluminum silicate plays a very important part. The crystal is laminar, meaning it is easily split into thin flakes with lots of electrically charged sites able to attract and hold a variety of metallic ions like calcium, sodium and potassium and anions like phosphate, carbonate and sulfate. The hydroxyl ion OH^- and water itself are also attracted so that the mineral is strongly hydrated.

The chemical nature of this compound allows it to hold a lot of water to help it move into a colloidal semi-dissolved state and, surprisingly, to exchange its absorbed ions with those of its surrounds. Some clays, the zeolites, are particularly adept at this and form the basis of the first water softeners in which the calcium ion of hard water was exchanged with a sodium or potassium ion from the clay. The calcium ion is not held that strongly and can be exchanged for sodium if salt water is added, or hydrogen if an acid is used, in order to recharge the zeolite's water softening properties. Even carbon dioxide, which forms carbonic acid in water, is strong enough to displace the calcium from its clay matrix and exchange it for a hydrogen ion.

Roots grow like the rest of the plant by metabolic processes which absorb oxygen and give off carbon dioxide which, aided by the carbon dioxide in rainwater, can displace minerals from the clay. Thus roots in clay gain access to the calcium, potassium and other nutrients held by the clay. This is the basis of its fertility. Liming the soil can provide calcium directly to the plant or indirectly to it by recharging the clay with calcium ions. The main component of ash from a burnt plant is calcium carbonate, showing that the plant's growth and structural strength depends on calcium. Potassium and phosphorus are also utilized from the clay, making direct addition of these nutrients essential in lands exhausted by long usage in agriculture.

The ion-exchange process depends on water movement to bring in the new ion and carry away the old one, but clay has an Achilles heel. The clay particles at some point take up enough water to form a plastic mass almost impenetrable to water and, another bad feature, able to exclude the oxygen from air. For the enormous fertility of clay soils to be released they must be made permeable to air and water. This is where sand and the humus from rotting vegetation come in. Plants can and do grow in water and in sand, so clay is not a necessity, but the nutrients it contains are, so must be added as fast acting fertilizers or slowly decomposing vegetation.

This is not the whole story, but enough of it to show a little clay is a wonderful thing, but too much becomes a problem.

It is very doubtful that your soil is deficient in clay, and heathers can grow very well in sandy soil. *Calluna vulgaris* 'H.E. Beale' is the only calluna cultivar that comes to mind as a heather said to be suitable for clayey soil, but this may be a reflection of its ability to tolerate clay rather than a sign that clay is a necessity for its optimum growth.

The odds are overwhelming that you have enough clay in the soil in your heather bed already. What you usually need is usually just the texturing elements of sand and humus that will let air in and water through.

Since this issue of Heather Notes is produced in the depressing months of winter it is not too surprising that gloomy thoughts should surface in the arm-chair gardening that is best practiced at this time of year. The satisfaction of enjoying flowering heathers in summer has to be balanced with the doleful contemplation of what might go wrong to interfere with it.

Winter protection will be on many members' minds, but in addition to protection against winter weather we should give a thought to the animal life that might seek protection in the heather, and wittingly or not contribute to our winter problems.

In this category fall moles and voles, and it surely justifies reprinting an article called "Meadow Voles and Heather," written by Dr. Harry Bowen, one of the strongest supporters NEHS has ever had. He has sadly been taken from us, but his article is well worth thorough reading (NEHS Heather Notes, Jan. 2002, reprinted NAHS Heather News #97, p.14, winter 2002).

A less thorough account of Meadow Voles is also to be found in the "Regional Heather Growing Guide", p.32, under the heading of Pests. Voles, like lemmings, undergo periodic population explosions. I haven't seen that much of them in recent years, so one may be due. One sign is that the garden mice (White-footed or Deer mice) have made a sudden appearance in the house. True, the grandchildren leave an inordinate number of food scraps around to tempt even the shyest of mice to leave their garden pickings for the crumbs from the table. Maybe it's the weather, but one has to wonder what's up when you find they've started to cache their seeds in the house rather than the garden.

Read the article so you can at least prepare for a vole invasion.

Donald Mackay

Harry's article is reprinted **below** for your convenience.

Harry Bowen's Article on Voles

This article was written in Harry's role as "The Plant Doctor" answering a question about "What was tunneling under the snow around my Heathers?"

Harry writes:

You were undoubtedly invaded by meadow voles, also called meadow mice, a rodent more closely akin to lemmings of the north polar regions than to mice. There are several species found in the United States. The two common to the northeast are the meadow vole (*Microtus pennsylvanicus*) which inhabits open meadows, lawns or adjacent plantings, and the pine vole (*M. pinetorum*) which lives in wooded areas.

Voles should be distinguished from moles of the family Insectivore which are meat eaters. Voles are veg vegetarians. The pine vole forms a large network of tunnels while the meadow vole is more apt to develop a series of "runs" straight beaten paths cutting across lawns and connecting beds of dense vegetation completely sheltering them from predators; cats, dogs, coyotes, raptors, foxes, skunks and snakes are enthusiastic vole-killers. Within these dense clumps they may actually tunnel a little, setting up nests in shallow pits lined with dry grass often right within the body of the plant. Voles do not hibernate and they may be active day and night.

Meadow voles and pine voles eat grass. They are also active collectors of seeds, bulbs, tubers and rhizomes. They gnaw bark, often girdling and killing the plant, most commonly in fall and winter. During times of overpopulation they can cause serious damage to crops. Pine voles actually can debark the root system below soil level causing widespread death in orchards and Christmas tree farms.

Much of the damage done by voles in heather gardens seems to be associated with their tunnels which often go directly through the base of the plant or end up in a nest cradled in the base. In either case there is ample opportunity for root disturbance and bark gnawing. Voles may damage plants by tunneling through and around (incidental root damage), or by nest building with the plants, or through bark destruction (girdling). I suspect they are capable of direct browsing on foliage as well, but I

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have never caught them at it. This damage is associated with times of high population. It is also related to the age of the plants: older plants seem to encourage nesting at the base of plants that give more cover for the voles. Protection against vole attack is largely based on improved cultural practices:

- cultivate in such a way that masses of vegetation do not occur
- mow the lawn as short as food practice allows
- leave adequate space between plants in the bed
- perhaps even think of eliminating older plants which offer more protection for voles
- remove any incidental plant material from the beds, especially bulbs, dropped fruit, etc that attract voles.

There are no safe means of chemical control designated for homeowners that I am aware of. There are registered ones available to the professional. Parafinized, anticoagulant baits are probably the safest to use. Some registered baits contain zinc phosphide, a highly toxic chemical that decomposes quickly in damp situations. **Always read the label before purchasing or using any of these.**

Finally, consider using simple mouse traps, which are quite effective. Bait the trap with apple or peanut butter with oatmeal, and set right in the run, covering with a shingle or flower pot (but be sure the trap is free to function). Check daily and reset if necessary. This is probably the most effective method apart from cats—but it is time consuming

Pests, Pests and More Pests

By Mary Matwey

While we are on the subject of pests, let's not forget deer but more destructive in my garden are hungry rabbits. These furry animals like the vole are active all year round.

Their destructive impact on my heathers (*Calluna vulgaris* only) became evident in late winter, early spring of 2013 when the plants were being to stir with new life prompted by the longer days and more direct sunlight. By that time the snow covering was very light to none. The first clue to their activity was a lot of piles of small, round, brown droppings.

Within a few weeks their nibbling on the heather took the form of an even removal of spent flower stems all around the plant. The top knot left in the center of the plant became progressively smaller until it disappeared. I wasn't alarmed at first thinking that the critters were giving the heather an early trimming thereby cutting down on my work. However, as the weeks past with winds and oscillating temperatures, some hard freezes even, the remaining stem texture of the rabbit trimmed plant became dry and brittle. To save the heather not yet nibbled on I covered them with burlap. Attending the spring Heather trimming events at the NEHS supported gardens, Fort Tryon and the Fells, I purchased replacement plants to fill the holes in the garden. Any little excuse to try new *Calluna* and *Erica* varieties will suffice. This year before the snows of Thanksgiving and early December arrived; I put up a surround of burlap and piled on the pine needles. See picture opposite.

My only fear is that I might have captured a rabbit inside the surround.



Vole Run

by Mary Matwey

I took this picture early December after the first snowfall of the year had mostly melted intending to write a piece on the critter that made this run in my grass. It ran approximately 10 feet from the heather bed to an area under a wooden arbor from which hang bird feeders and where we scatter bird seed on the ground. As I followed this run from the heather bed to the bird feeding area, I thought the critter might be a mouse who I know love bird seed. After re-typing Harry's article to be included in this issue I knew that I had captured something special. How serendipitous is that, to capture the support Harry Bowen's article needed? From the list of control measures cited in this article I would definitely add another:

Place a bird feeder station far away from your heather bed.



The black line in picture #1 follows the vole run through the grass and picture #2 shows it ending or beginning at the burlap surround going in the soil into the heather bed. I can only hope that the vole bait will be sampled and end this potential problem.

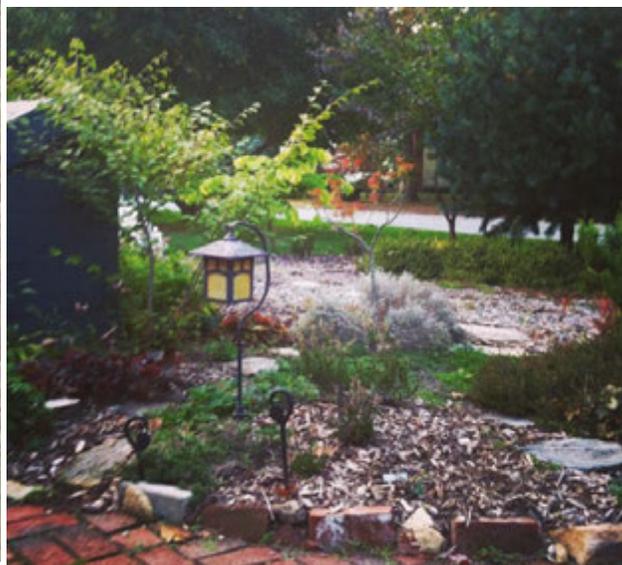


THE BEAUTY OF HEATHER

Donald Mackay's Colorful Winter Garden



Judy Doyle's Front Yard - *Judy's gardens will be on the 2014 NEHS Garden tour. See page 2 for more details*



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The purpose of the Northeast Heather Society is to foster interest in growing heathers (*Calluna, Erica, Daboecia, Cassiope, Phyllocladus* and *Andromeda*) in northeastern North America, by serving as a conduit of educational information for both the experienced and the novice gardener.

MEMBERSHIP in the Northeast Heather Society is open to anyone who pays dues to this chapter. Membership benefits include: a subscription to this quarterly newsletter, participation in chapter meetings and elections, borrowing privileges for slide/power point presentations, and, most valuable of all, contact with fellow heather gardeners who mostly live in or near your growing zone, all willing to share helpful advice and their experiences. A family membership permits more than one family member to vote and participate in all NEHS activities for an additional \$5 per year fee above the annual dues. The family membership includes all household members residing at the same address and each member has one vote. Each household will receive only one copy of Heather Notes.

Dues for an Individual: \$15 a year; \$28 for a two year membership; \$40 for a three year membership

Dues for a Family \$20 a year; \$33 for a two year membership; \$45 for a three year membership

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Do you have a suggestion, a question, a story, an anecdote, a poem, or a photo to share? Contact the Content editor:

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All material may be edited for clarity and length.

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