

HEATHER NOTES

VOL.7-NO.3

A Quarterly Newsletter of the Northeast Heather Society - 1997

NEWS FROM GAIL TAYLOR, ST. GEORGE, NEW BRUNSWICK, CANADA

(Gail has a small heather nursery and is trying to develop an interest in heather growing in her area)

I have been doing some re-reading of old Heather Notes, back when I first joined in 91, in respect to problems with heaths and heathers during the winter. Now the plants that I started with in 1992 are five years old and are quite woody and some have quite thick stems. This is where my problems are arising.

I did not lose any plants this past winter but my older plants like *Calluna vulgaris* 'Silver Knight', 'Tib', 'Branchy Anne', and my two oldest plants of 'Peter Sparkes' are the worst looking ones, and became quite brown and much pruning had to be done on them.

I keep reading in the newsletters "not to write them off to early" and eventually some new green growth did appear, but the plants are small and look like bonsai. The smaller 2 - 3 year old plants did much better. However, the older and woodier they get, the more I seem to have to cut dead stems out. These are mostly from the center of these heathers and I would like to know why this happens to the centers of my plants?

I have not covered my plants for the past two winters and I intend to start doing so once again, as this was not such a problem when I gave winter protection. The reason I stopped covering the plants was because I am growing commercially and wanted to be able to allow people to see the plants during colder weather and show them that they can withstand the rigors of a Canadian winter. However, our winters vary in severity of weather, last winter being especially severe, so I think it may be best if I revert to covering my plants..

I find that the stems are dried out part way down and then are green and moist looking the rest of the way down. Again, my reading tells me that there will not be any new growth coming off these older, thick stems. However, when these are pruned out, the plants look terrible.

I have spoken to David Wilson, a heather nurseryman in British Columbia about this and he asked me if I fertilized my heathers? I said not at all as I had always read that heathers grew on infertile moorland and responded best with no fertilization.

I do use some fertilizer on my rhododendrons at half strength, with the addition of some Epsom salts and will try it on my heathers in early spring, or perhaps a liquid seaweed solution. I have never put peat moss around the plant or in the center where damage has occurred, as I have read should be done. I intend to try that, but was concerned about the peat moss drying out and didn't know at what time of year to place it in and the plants?

I also recall an article in Heather Notes about the use of Remay. I would like to try it but am not sure of what to do with it exactly. For instance, should I put boughs down over my heathers first and then the remay, or visa versa?

All of my low-growing varieties came though with

nothing to prune out. They also do not seem to get the thick stems that the more upright growing plants do. This spring was very late for us and we had cold winds right through May. No doubt the winds and the severe winter caused much of my problems. I did my pruning of spent flowers when I normally do and I wonder if I should have waited because my heathers did not start to show signs of new growth until June. I seem to have read that if pruning is done too early it can do more harm than good.

Perhaps I take everything I read too much to heart? When you are just learning about a group of plants you have to accept what you read, until you can observe for yourself, in your own garden. It bothers me to have lost the centers of some of my older plants, but it could be just coincidental, as I have some other types of plants in my garden that this has also happened to.

I would like to know that I "am not alone in this". I will leave the heathers until next year and see if I can encourage new growth from these older plants. If not, I will replace them. It's good to have a place to share such matters and we must "talk again soon!"

(This article goes to the heart of heather growing in the northeast. Yes, we read British heather books, but the ground never freezes in England and while they may have some dry periods to contend with, they don't have the rigors of a Canadian or New England winter and the short growing season that results.

We also read of heather growing on our west coast, but we do not have the humidity and long growing season that they do. That is why it is so helpful to have NEHS where we can discuss our heather growing joys and sorrows together.

We will try to cover some of the items in Gail's article and I have asked Whit Dickey, as a user of Remay, to give us some of his experiences with it. - Editor)

SOME THOUGHTS ON THE USE OF REMAY FOR WINTER COVER - Whit Dickey, Lebanon, NH

I garden in Zone 4 and the biggest enemy is the NW wind without snow cover. I have thought about putting up a fence where the wind is the strongest, but my wife doesn't think it would look well there.

Approximately 25% of my garden is *Erica carnea*, which Kate Herrick, of Rockspray Nursery, says is hardy to Zone 4. My experience is that most (but not all) of it will live through the winter, but the little buds which form in the fall get killed off when the thermometer drops to 20 or 30 below, unless there is good snow cover like we used to have "in the good old days". Of course, there is little or no bloom when the buds get nipped. I only covered with pine needles for quite a long time. That was OK when and if they stayed where I put them, but they tend to slide off when I'm not looking and I have other things to amuse myself with in the winter besides the garden.

As a result of the above, too often the wonderful early spring bloom was lousy! And, therefore, for the past 4 or 5 years, I have been putting pine needles on first, and then Remay over them. I use small rocks to keep it in place, because Remay is very light and will blow away with the slightest wind. (I have a drainage ditch at the bottom of the

garden filled with heavy stones which get used for that purpose, and then toss them back in the spring) This has worked pretty well, but this year I plan to try Remyay without the pine needles. My bet is that this will work if I use enough stone to keep the wind from blowing under the cover. My hope is that the frost will exit sooner and that the Remyay will protect. We shall see!

I get oak leaves in my heather bed, and it is impossible to get them out in the fall. In the spring, they and the pine needles get removed, run through our shredder, and then put back as mulch wherever there is room to squeeze them in or where I see a need for it.

The cover-up usually gets done in November. However, I am usually away on winter vacations and my heather does not get the kind of attention that it really demands. I have also put Remyay on some areas of *Calluna vulgaris*, especially those where the winter has been consistently rough. By the way, I have given up on *Anthony Davis*; it has lovely gray foliage with beautiful white flowers, but it either is quite tender or is too tender to withstand the NW exposure where it has been; mine was virtually wiped out last winter, despite a casual Remyay cover.

Rain goes right through Remyay. It is agricultural, and is really like a mini-greenhouse. My wife plants spinach under it in the fall and it goes right through the winter for an early crop.

For heathers, **the removal time is critical!** The frost has to be draining out before removal, or the sun will kill your treasure. *Ericas* can be blooming under the Remyay, but if there is still frost in the ground when you uncover, the spring sun will kill or severely damage your plants.

This introduces a wholly different but intimately related subject, **drainage**. I know that poor drainage retards frost outgo. I have corrected the early spring sun kill by digging up plants and putting lots of sand and peat in the soil and then replanting the partially winter-killed *Calluna*. But *Ericas* spread all over the place, and I have not dared try the same stunt with them. I should also confess that the whole length of this south to southwest sloping bank was heavy, literally blue clay soil before I started planting it with heather. I have dug in trailer loads of sand and bales of peat, plus enormous quantities of ground-up oak leaves and pine needles.

I have also used saw dust and a little bit of Lebanon's mixture of sewage plant effluent and wood chips to decompose it. Also, I have acquired coffee grinds from Dunkin' Donuts and put them in to prepare the soil for a new area. Obviously, some parts of my garden have better soil than others, and I am sure that this discrepancy explains, to some extent, why the winter treats my garden in an uneven way. But last winter killed some areas where I never had trouble before. I was in the Bahamas on my boat and, therefore, could not really know what went on back home.

If one is careful, Remyay can be used at least two or three times. However, when dogs walk on it, their feet go through it unless there is snow. Snow has never hurt any of my plants; it's the lack of it that I worry about.

Remyay can be purchased in 6 foot wide rolls or large sheets of 25ft. x 83in. @ \$14.95 a sheet. I have used both and got them most recently from Gardener's Supply in Burlington, VT.

Boughs have not worked well for me. I have an awful lot of garden and don't have access to enough boughs to come near covering it. Secondly, what can the bough do

to protect the plants from wind? In summary, I am not experienced with boughs as a cover, and I am skeptical if they would work for me.

I love my garden this time of year. Only my *Peter Sparkes* and *H.E.Beale* are still in bloom, but the foliage on some of my green ones are starting to turn and of course, *Red Haze*, *Peter Chapman*, *Blazeaway*, *Multi Color*, etc... all soon turn orange! (article written Sept. 22nd.)

(We certainly thank Whit for responding to our request for more information on his use of Remyay. He had a hip replacement operation in September and we wish him continued good health!)

SOME ADDITIONAL RESPONSES TO GAIL'S CONCERNS

The center of a plant is its oldest part and if it grows in a "vase" or "flat" shape, as most *Callunas* do it is subject to being clogged with leaves and/or snow and ice. While snow cover protects plants, on warmer winter days, it will melt some and the resulting ice will form around the center of the plant causing stress to it. With the ground frozen, there is no place else for this bit of water to go. The greater stress is caused by freezing and thawing of the ice around the center of the plants.

Written experiences on heather growing, like any other written material should be taken at face value. There is no "one right way" to grow heathers, just better techniques that have been found by some to create better growing conditions, in their own growing situation. For instance, I know heather growers in MA and NH who swear by covering their plants with boughs. I know of others who never cover that way as they feel that the boughs allow ice to develop around the base of their plants and then damage them. I know growers who will only grow *Calluna vulgaris* because they feel that they are the hardiest plants and others who will only grow *Erica carnea*, for the same reason. **Read, digest, experiment in your own garden and then do what you find best for you and then let the rest of us know about it.**

The reason that the top of the stems on some of your heathers die back and the bottoms are still green is probably due to wind damage. You have noted that low growing types show no damage. That is because they hug the ground and they and the bottoms of your other plants get some wind protection as a result. I often find that heathers will look good throughout the winter months and stay green and then in late winter as any snow cover begins to melt and temperatures begin to warm up, the cold winds and varying temperatures will kill stems of the plants that have withstood the rigors of winter months without cover.

Leaves left in the centers of plants as the weather warms, especially oak leaves, will also cause die-back as they stifle growth. This is also true of dwarf conifers and other plants if leaves are not removed from the plants proper.

Yes, even thick old stems of heathers will regenerate growth. This has been studied on very old plants on the moorlands and found to be true. New growth will not come as quickly on old stems, but it can develop. Wet peatmoss can be placed in the center of such plant in spring and if not allowed to dry out, will encourage new growth.

Heathers will also benefit from some fertilization. While it is commonly thought that they grow and thrive on poor,

acid soils most books on heather recommend fertilization of one sort or another and all heather nurseries use fertilizers on their plants. With our short growing season, our heathers need all the help they can get. Try a half strength solution of something like Miracle-Gro or K-Mart Acid Fertilizer with a dash of Epsom Salts applied in early spring and again in mid-July, but no later. If you are into organic, use a balanced, low dose application, but try to make sure that you are providing iron chelates.

By all means prune as early in the spring as possible and continue to learn about and enjoy your heathers.

HEATHER'S GATE - Will Clarke, N.Falmouth, MA

We seemed to suffer even more than lost tools, missed appointments, burnt waffles and the like this past winter, and we blamed most of them on the Hale-Bop comet. One of the episodes was the disappearance of an article I had written for the spring issue of Heather Notes. The article vanished both from my computer and our editor's files (probably at the same moment, although there is no way to prove it).

The piece was titled "It Ain't the Humidity, It's the Heat". I observed that during the summers of 1994 and 1995 several heathers, in my care went to The Next Level or, as we professionals put it, "suddenly turned brown and died".

The bed in question is at the base of a stone wall and I suspected diseases due to poor air circulation. This past summer was very wet on the Cape, and plant diseases were rampant, but it was also cool and those heathers thrived. It now seems likely that the bed simply gets too hot with the sun reflecting off the wall. This led

to wonder how our southern most members deal with heat? Do your heathers perform better in part shade? Are some cultivars more heat tolerant than others? I had the most trouble with *Martha Herman*, a plain green *Calluna* that I think of as sturdy. Lets hear from some Zone 7 and 8 growers on this.

Speaking of zones, Orlan professed astonishment, last issue, that some of us in Zone 6 or 7 cover our plants for winter. My response - "it ain't the cold, it's the wind". I haven't done the kind of scientific study Orlan recommends, but it's easy to observe that heathers at waters edge, exposed to high winds and salt spray, suffer far more winter damage than those only a short distance inland or protected by buildings or shrubs.

It's certainly true that it's a shame to cover plants that look so wonderful in winter, but I find that the owners of those water front homes are generally not winter hardy themselves and have to be overwintered further south. Then their gardens belong to the gardeners and it's pleasant work to be pruning evergreens and covering the beds.

HEATHER RATINGS, WHAT'S IT ALL MEAN?

Ted Barraclough, Seneca, SC

In the winter issue of Heather News, Dee Danori introduced a rating system for heathers. The system patterned after that used by the Rhododendron Society, is simply a polling of members experience with heathers as they grow. It doesn't ask where you grow them or how good a gardener you are. It asks, on a scale of one to five, that you rate; flower, foliage and overall. I was enthused enough about the rating system to volunteer as the rating database manager.

The ratings database is designed to maintain a cumulative average of the ratings for each cultivar. The reporting format is set up to display only those cultivars that have received at least a threshold number of ratings. The five-o's can be depended on to do well for anyone under any conditions. The one-o's are a warning that they may be limited in range and require additional care. After all, there are no bad heathers.

For those of you unfamiliar with the ratings published by other societies, let me tell you how I recently started my rose garden. I decided on a modest start with five hybrid tea roses; red, white, yellow pink, and a bicolor. I consulted the published expert opinions on what should grow here in my environment. I made a list of the expert recommendations for each color. I then ordered that list using the American Rose Society ratings. With my homework done I went to find my choices in the nurseries.

It occurred to me, as I outlined this selection process, that it was about the same as betting on a horse. You see what the handicappers pick and make your choice. Before you put down your bet you check the tote board to see where all the other betters have put their money. Of course, some of us always bet the gray horse or pick a plant that looks good in the nursery. In either case it helps to have assurance of the tote board of plant ratings.

Please help make the ratings system useful and send me your ratings. I need to know: **Genus, Species, Cultivar, Flower Rating, Foliage Rating, Overall Rating. The ratings are 1 - 5 with 1 = Bad and 5 = Good.**

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MEET OUR NEW VICE PRESIDENT - JUDITH SCHWARTZ, Marlow, NH

Judith Schwartz lives in a town that is said to be the coldest in Cheshire County, NH. It is famous, among other things for once being home to the Fat Lady in the circus. A dead body was also once found buried under the lawn of the local Police Chief. Computer buffs know it as the home of PC Connection. Plant lovers know it as the home of Town and Country Gardens Nursery and Landscaping which Judith owns and operates with a partner.

Judith is a true "plant person". She holds a certificate in "Native Plant Studies" from the New England Plant Societies, Garden in the Woods. She is also a Master Gardener having completed the NEH program. A special interest is Horticultural Therapy and she is a member of the American Horticultural Therapy Association and is involved with their various programs.

Judith writes a column on horticulture in a local weekly newspaper. She also teaches Botany at Keene State College. She has designed and planted a local heather garden and works heathers into some of her plantings. A specialty of her nursery is winter hardy old roses and a display rose garden is being developed at the nursery. There is also a growing heather display bed. She is looking forward to working actively with members of NEHS.

1997 ANNUAL MEETING -NEHS/NAHS -CAPE COD

Our hats should be off to Harry Bowen, the coordinator of this event. This is at least the second time that he has taken responsibility for coordinating the NEHS annual

meeting on Cape Cod. It is a tremendous responsibility, with many details to be worked out. Harry has always been willing to host visits to his garden by NEHS members and we are grateful to he and Grace for their continued help and guidance.

Others, of course assisted Harry and unfortunately your editor was not provided with a list of names to recognize in the newsletter, so lest we leave someone out, consider this a blanket vote of thanks. We, in fact, received only write-ups on a few of the gardens visited and these are as follows:

Al & Nelda Doggart, Waquoit - The Doggart's converted summer cottage, with attached greenhouse, nestles on a hill with no "lawn", but a naturalized mix of shrubs and ground cover. The side "moon" gate leads to sunken and terraced gardens filled with pools, a vegetable garden and densely planted heathers and heaths intermixed with some shrubs and perennials which cover the sloping sides.

Al & Nelda had a stunning *Crepe Myrtle* in bloom and other excellent specimen plants. In the greenhouse, we admired Nelda's scented geraniums and bonsai.

Ericas and *Callunas* need acid soil, but Al & Nelda's was too acid and had to have lots of amendments over time for the heaths and heathers to flourish as they certainly do. Despite Al's problems with snails and turtles (a "first" problem for most of us), the gardens grow superbly. Interspersed throughout are Al's signature acorn wood carvings and a pergola or two to view the vistas. It was a delightful beginning to our tour.

Judy Doyle

Carol & Robert Seidler, Cotuit - This new home has a superb driveway lined with native bayberry, "sweet fern" (*Comptonia asplenifolia*) *Ilexes* and other "natives", which lead up to marvelous *Erica* and *Calluna* beds. Interplanted on a not-to-large area bordering Saltmarsh and estuarine flora are shady *Stewartia*, fringe tree (*Chionanthus virginica*), *Magnolia stellata*, plus lilacs, daylilies and hostas, with several bright annuals. Plantings are mostly new, but the impression is one of openness and shade blending in native plants with the others - truly unusual.

Kathy Udall

Robert Smith, Osterville - When Hurricane Bob took down 48 trees in 1992 or was it 93?, in his back and side yard, Bob was suddenly faced with a huge open area. He proceeded to plant heathers - lots of heathers - 120 varieties and over 600 plants! There are a few young trees, (maples and others) and a sprinkling of tomatoes and annuals, but the overwhelming vista is of heathers.

A modern moor-garden with local grasses, goldenrod (*Solidago*), asters and daisies. And all of the heathers had labels, too! A great place to see and Bob has more heathers to plant....!

Kathy Udall

John & Caroline Elliott's "San Mai An", Harwichport - This garden has long been known on the Cape for John's eclectic mix of specimen miniature conifers, arboretum specimen plants and trees, and Japanese style "pocket" gardens, some with small pools and 'Koi, of course. He has arranged these to give a sense of peace, tranquility and joy.

With Caroline, John does most of the work himself. In a small area, trees and shrubs screen off the areas so that our whole busload and two vans and one car, of people, never felt crowded anywhere.

John's knowledge is encyclopedic and his *Callunas* and *Ericas* fit in beautifully with his rare specimens. The use of bamboo fencing is in keeping with the Japanese theme. He also has rock, alpine, shade and sun gardens and beds, a potting shed area (fully alive with clematis and hanging plants) and a "fence of *Cryptomerias* full sized - tree not easy to grow on the Cape.

Colour, texture, sun and shade have all been manipulated, but it's only as you reflect on San Mai An, that you realize how skillfully it's been done. It's unique and well worth a visit from anywhere.

Kathy Udall

Richard & Betsy Loomis, East Harwick - The entrance to the Loomis home is situated on a hillside, covered with approximately 130 young heath and heather plants. Richard provided the group with a computerized chart of the garden's contents allowing many of us to test our plant identification skills and shout a silent "hurrah" when finally, with his graphic in hand and his live specimens at our feet, we could put a name to that orphan plant in our own garden.

In addition to a generous sampling of *Callunas* (23 in all) Richard & Betsy have added *Bruckenthalia spiculifolia*; *Erica cinerea*, 'C.D.Eason', 'Golden drop' and 'Rosabella'; *Erica tetralix*, 'Alba mollis'; *Erica vagans*, 'Lyoness', 'Mrs. D.F.Maxwell' and 'Multiflora'. *Erica carnea* is well represented with 'Aurea', 'Loughrigg', 'Springwood White', 'Vivelli' and 'Winter beauty'. Three *Erica x darleyensis*, 'Ghost hills', 'Furzey' and 'Silberschmelze' and one *Erica x williamsii*, 'P.D.Williams' round out the display in its current design.

Not to be overlooked were two dozen varieties of ornamental grasses, sedges and bamboo near the driveway and along the edges of the property. A walk to the back of the house showed evidence of a cutting garden of mixed perennials and annuals, including Russian sage, scabiosa, salvia and lobelia.

A truly wonderful "rest stop" for our tour group.

Molly Martin

Kathy & Bill Udall, Orleans - Nestled snugly into a berm that overlooks a salt water pond, the Udalls have created a unique home and garden where the lines separating the two have been deliberately blurred. The house, made out of reinforced concrete, has been dug into the side of a hill and the sod roof, accessible by a stone stairway, has become part of their extended garden.

The landscape offers a variety of planting opportunities from bog gardens to shaded woodlands. The Udalls have taken advantage of the area's hospitable environment to grow an assortment of heathers, which are now mature and well-established on their property. Everything growing was meticulously labeled from the rare *Daphne x burkwoodii* 'Carol Mackie' to Montauk Daisies -- a true labor of love and organization. Our thanks to Kathy and Bill for sharing their "home scape" with us.

Molly Martin

(We do not mean to slight other gardens visited or other activities on the program, but the above is the only material forwarded to the Editor, to date (Oct. 13th). No photographs of the event were sent to us, so we have nothing to reproduce, in that regard either.)
BUT A BIG 'THANK YOU IS IN ORDER FOR HARRY BOWEN, WHO MADE IT ALL HAPPEN - HIP Hip Hurrah! A JOB WELL DONE.)

SPECIFIC HEATHER REPLANT DISEASE -Excerpts from a paper delivered by Dr. Audrey M. Litterick, Plant Pathologist, Dept. of Plant Science, Scottish Agricultural College, Auchincruive, Ayr, KA6 5HW, Scotland

This paper was delivered at the 1997 meeting of the British Heather Society, at Penrith, Cumbria, England. Audrey Litterick has worked at the SAC for the past 11 years and specializes in the health problems of ornamental horticultural crops and has extensive experience in the diagnosis, prevention and cure of disease in ericaceous plants.

(Our readers should recall a question to the Plant Doctor, a few issues ago, as to "why heathers continued to die when planted in one particular area of the garden". The same question was dealt with several years ago, in Heather Notes. This item may give further insight into this problem.)

What is Specific Heather Replant Disease: No one really knows for sure. It manifests itself as plant decline and death. It occurs when a plant or plants have been planted in soil from which other plants of the same species have been removed immediately prior to replacement. There is usually no serious, primary disease and no obvious cause of death, such as dog damage, freezing injury, waterlogging or drought.

Specific Heather Replant Disease - research: There has been very little done. However, there is some relevant information from other crops, for example, Specific Apple Replant Disease, or SARD of apples. For a long time, apple growers were mystified as to why healthy young apple trees either performed poorly, or died shortly after planting into orchard soils which had previously contained apple trees. Disease diagnostic tests carried out by plant pathologists like myself revealed that there were no serious pathogens on the roots, only so-called minor pathogens. Instances of SARD cropped up all over the UK until eventually some common factors began to emerge.

1. Trees were showing poor growth or dying mainly when they were planted into orchard soils which had previously contained trees of the same species, i.e. apples following apples, or plums following plums, etc.

2. No serious fungal or bacterial pathogens or pests were present and there was not necessarily any evidence of virus.

3. It was usually the case that a number of weak pathogens, normally thought to be secondary pathogens were present on the roots.

Eventually it became clear, through research, that it was the weak, secondary pathogens that were harming and killing the trees. Normally, such pathogens are too weak to damage healthy trees. Certainly they could not seriously damage and kill trees if present singly, i.e. as single pathogen species. However, once an old tree has been in the ground for a while, the number of weak pathogen species which have the capacity to harm the tree has grown significantly. Not only are there more species present than there originally were on the ground around the roots, but there are larger quantities of each species in an older tree.

The weak pathogen species act together, in a synergistic manner to cause much greater damage than they could alone. By the time a really old tree has been removed, the soil in the rooting area is full of a range of fungal pathogen species which have moved into the area

over the years specifically because they have the ability to live off, and harm the species concerned. If a new, young tree is planted into the same hole, the adapted fungal community homes in to attack the very type of roots which they love the best. It is generally thought that the fungi attack the roots and render them less able to take up water and nutrients from the soil. The tree has little chance of survival and usually goes into a fairly rapid decline. Badly affected plants eventually starve to death. This rate and severity of the decline depends on a range of factors including soil type, climate and species and variety of tree.

There is now evidence that Specific Replant Diseases occur not only in top fruit orchards, but in a range of other woody plants also. There has been evidence of the phenomenon in roses for a long time. It is particularly well documented in roses and apples because people are more likely to want to keep a rose garden as a rose garden, or an apple orchard as an apple orchard. That is they are more likely to plant a plant of the same species as has been removed from a particular hole. It has been thought, for a long time, that Specific Replant Diseases occur in ericaceous plants. Now, there is little doubt that this is the case, but sadly, there is almost no hope of workers being able to obtain money for research to prove it.

Specific Heather Replant Disease - causes: The disease occurs with heathers which have been planted into soil previously occupied by heathers. Work at SAC has shown that Specific Heather Replant Disease is caused by organisms very similar to those which cause Specific Apple Replant Disease and Specific Rose Replant Disease. Some of the secondary pathogens which are involved include the following: *Penicillium* species, *Pythium* species, *Mucor* species, various actinomycete species.

As with Specific Apple Replant Disease, these pathogens would cause little damage on their own. It is when they are present in large numbers, in association with other secondary pathogens that the damage occurs. These fungi may have particularly aggressive forms which are adapted to damage heather roots, but this is not yet proven. There is evidence that certain soils are more prone to the development of SHRD than others, e.g. well-drained fertile loams are particularly bad. However, most soils, even including acid peats can be affected under certain circumstances. SAC recently investigated a case of SHRD from Holchird (garden of the Lakeland Horticultural Society in Cumbria, England) and found that the soil was particularly suitable for the growth of ericaceous plants. The texture, structure and pH were all ideal, which is unusual. Good soil like that is no bar to SHRD though.

How to Recognize Specific Heather Replant Disease: This is impossible to do by eye alone. It is a matter for the trained and experienced plant pathologist. If a gardener is concerned about the poor health of previously healthy heathers which have been planted into suitable soil type in a suitable climate and that soil area has contained heathers before, there is every chance that SHRD is present. A formal disease diagnosis, by a trained pathologist is necessary. There are no short cuts.

How to Prevent Specific Heather Replant Disease: The only certain way to prevent the problem is to avoid planting heathers into soil which has contained heathers in the past. This is often difficult. There are several possible choices. These are as follows, in order of preference and probable effectiveness:

1. Choose and design a new area for heather beds. Re-

plant the original bed with other species, preferably non-ericaceous.

2. Remove and destroy all existing diseased heathers. Remove as much soil as you can manage, and take it to an area where species other than heathers are to be grown. Sterilise the remainder with Basamid (dazomet, BASF). You will have to get a professional contractor to do this. Put new topsoil, from a non-heather containing area on top and re-plant with heathers.

3. If you decide not to opt for either of the above, you could try simply digging in lots of young peat and composted bark. Composted hardwood bark is best if you can get it. The idea here is to introduce substrates which are likely to carry fungi which are antagonistic to those which are causing the damage. This approach can work in areas which are only slightly affected by re-plant disease.

(While this young, learned Scottish lassie above presentation to the even more learned gathering of the British Heather Society, may give some cause for despair, ponder the following: Have you seen or do you have a rose garden or apple trees in your area? They have not seemed to have succumbed to this Replant Disease nor have our heather gardens. Most concern has been about a few plants or an area in the garden that will not support new plant replacements of the same type. (Audrey did say that if a gower was having difficulty with one type of plant such as Calluna, an Erica could be tried in its place)

Crop rotation has been a common tool in agriculture, for many years and this is basically crop rotation, except that we do not replant our heather beds each year. However, there is another factor that enters into this whole equation. Every noted book on heathers makes mention of the positive mycorrhizal association with heathers. D.Fyfe Maxwell & P.S.Patrick in their book "The English Heather Garden" tell us that this co-existence was first discovered by Professor A.B.Frank of Berlin, Germany.

Terry Underhill tells us there are "two types of mycorrhiza, the endotrophic group and the exotrophic group." "Experiments have shown a 30% increase in the dry weight of plants with mycorrhiza. It is believed that it helps plants nutrient intake, especially of calcium and phosphates, in poor soil."

Most books encourage the saving of soil in pots of heather, when one breaks up the root-ball for planting, so that the mycorrhiza is retained and even placement of soil that has contained heather plants previously, in new heather beds, for this same reason. WHERE DOES THE TRUTH LIE? Somewhere in-between, no doubt??

Please let us have your comments, so that we may better understand the above and use it for further discussion in these pages. - Editor)

SOME NOTES ON BOOKS AND PLANTS PRIMARILY FOR OUR BRITISH READERS

"Heathers, Conifers & the Winter Garden", A Wisley Gardening Companion book is now being discounted at

The National Trust shops for 3.99 pounds. It is merely a reprint, in hardcover, of their 3, original softbound publications, but at that price it is a good buy.

"Heathers & Conifers", Sue Phillips & Neil Sutherland, a Color Library Book, can be found at Closeout Bookstores for 3.99 pounds.

"Heathers", Andrew Mikolajski & David Small, 1997, a small book in The New Plant Library. Molly Martin has seen it in the USA for under \$10.00.

My vote for the most inexpensive heathers in Britain are at the Reighton Nursery, in Yorkshire, south of Filey on the A165. Turn right at the Pub on the corner, if going south and the nursery is a short way on the left. Heathers are 60P (\$1.00).

FROM THE EDITOR

I had a good second trip to Bulgaria, the end of August and then spent several weeks in England and attended the annual meeting of the British Heather Society, in Penrith, Cumbria. This was the weekend of Princess Diana's funeral and TV's were set up so the group could watch the ceremony and a moment of silence was participated in by those in attendance.

I went up another magnificent mountain pass in Bulgaria, with the hills ablaze with alpine plants. This was harvest time for the tobacco crop (Bulgaria is the 2nd largest producer in Europe) and women sat along the road threading the leaves on long cords, so they could be dried, much as their ancestors had done generations before. In mountain villages the men sold wild mushrooms that they had gathered in the hills and gypsy children peered out as we went by....

This will be my last issue as editor of Heather Notes. As I was not re-elected as Secretary/Treasurer, I don't think it is appropriate for me to continue as Editor and am sure that a new voice is needed here also.

I have served as Secretary/Treasurer almost since the inception of NEHS and as Secretary of NAHS until it was ruled that one could not serve as both an officer in the National Organization and a Chapter. I chose to continue to serve the Chapter. It has been a labor of love and I trust that queries have been answered adequately and promptly. I have always tried to include a brief note of welcome to new members and encourage their participation in NEHS.

This year, some officers actively solicited other candidates for these offices and that is the democratic way. I thank all who supported me

I did not receive a column from the president for this issue, so that is why none is included. The past tone has been one of Doom & Gloom or what might be called the "Chicken Little the Sky is Falling" syndrome. Everything seems to be wrong, Our dues are too low (Let's shake out those who are not really interested in heather) There is limited participation. (Let's close down NEHS), etc....

I submit that with some 350 members and some \$5,000 in the bank, we are in great shape. Of course, if we count the number of members with eyeglasses and those with false teeth again, we may dissipate more hundreds of dollars to little end.

Since our inception our goal has been to "spread the word about heather". Some of our members have gardens and some have no garden. Some are horticulturists and some are students or old folk in Nursing Homes. Heather Notes brings each reader in connection with some part of their life and that is how I

should be. NEHS has always tried to be a learning experience, but most of all a "FUN THING". Chicken Little, the sky is not falling, it's providing the sun and rain that allow our favorite plant heather to grow and flourish.

The following heathers are still in bloom on my Zone 4 North facing NH hillside (Oct. 13th) *Calluna vulgaris* 'Redbud', 'Marleen', 'Melanie', 'Alexandra', 'Tib', 'Perestrojka' (just going off), 'Finale', 'Hatje's Herbstfeur', and a few nice blooms on *Erica x walsonii* 'Dorothy Metheny'. They get no covering by me, just some conversation. Call and come for a chat. You are always welcome.

I visited the estate of Rudyard Kipling, this past trip to England and saw this poem. He had a home in Brattleboro, VT for a few years, so has some roots in New England also. While it makes no reference to heather, I would like to close my last newsletter with it. (I note that the Mass. Chapter of the Rhododendron Society had a poem by Longfellow in it's last newsletter so I guess this will be alright!)

Walter

THE GLORY OF THE GARDEN

Our England is a garden that is full of
stately views,
Of borders, beds and shrubberies and
lawns and avenues,
With statues on the terraces and
peacocks strutting by;
But the Glory of the Garden lies in more
than meets the eye.

For where the old thick laurels grow along
the thin red wall,
You find the tool - and potting sheds
which are the heart of all;
The cold frames and the hot-houses, the
dungpits and the tanks,
The rollers, carts and drain-pipes, with
the barrows and the planks.

And there you'll see the gardeners, the
men and 'prentice boys
Told off to do as they are bid and do it
without noise;
For, except when seeds are planted and
we shout to scare the birds,
The Glory of the Garden it abideth not in
words.

And some can pot begonias and some can
bud a rose,

And some are hardly fit to trust with
anything that grows;

But they can roll and trim the lawns and
sift the sand and loam,

For the Glory of the Garden occupieth all
who come.

Our England is a garden, and such gardens
are not made

By singing --- 'Oh how beautiful!' and
sitting in the shade,

While better men than we go out and start
their working lives

At grubbing weeds from gravel - paths with
broken dinner knives.

There's not a pair of legs so thin, there's
not a head so thick

There's not a hand so weak and white, nor
yet a heart so sick,

But it can find some needful job that's
crying to be done,

For the Glory of the Garden glorifieth every
one.

Then seek your job with thankfulness and
work till further orders,

If it's only netting strawberries or killing
slugs on borders;

And when your back stops aching and your
hands begin to harden,

You will find yourself a partner in the Glory
of the Garden.

Oh, Adam was a gardener, and God who
made him sees

That half a proper gardener's work is done
upon his knees,

So when your work is finished, you can
wash your hands and pray

For the Glory of the Garden, that it may
not pass away!

**AND THE GLORY OF THE GARDEN IT
SHALL NEVER PASS AWAY!**

Rudyard Kipling - 1911

Please send all communications to the Secretary
of NEHS - Marjorie Walsh, 1270 Hallowell-Litchfield
Road, West Gardiner, ME 04345 (207) 724-3369

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DO NOT DELAY!

The Royals in Tartan, holding heather, at
the Braemar Highland Gathering, Sept.'86