ML's Greenery in Motion
2022 Newsletter

Welcome to 2022 - Teaching a 30-year-old horse to play soccer – and other tales…

Going hither and yon recently to locate clean barley grain for our goats, I had a delightful conversation with the checkout woman about horses. We both have 30-year-old horses (she actually has 3). As she can no longer ride them…she has taught them to play soccer. With her and each other. So, you know I'm now trying to figure out how to teach Breezy to play soccer.

But it has occurred to me that the statement "teaching a 30-year-old horse to play soccer" is actually where many of us are right now. Trying to figure what's next in a world both not changed much and changed significantly from 2 years ago is a challenge. What new avenues need to be explored? What skills need building - what do we need to be grasp in order to be successful? Guess I'll find out as I try to teach a horse to play soccer. First step…buy a soccer ball!

This newsletter is a bit later than usual this year. There's been A LOT going on in our little corner of the world. We sold off the productive part of the duck flock last summer once a fox found them easy pickings. We had a den of 4 kits less than ¼ mile from the barn.

It's always a hard decision tree when dealing with the predators. The easy solution is to remove them (expensive but straight forward) but, here's the thing, the predators exist for a reason. The foxes may try and get the ducks but they also eat mice, rabbits, rats, chip-munks and squirrels – all of which cause problems of their own. We refenced and that's helped but foxes can get into pretty small spaces…

We've also sold several of our older does and four of them went on to breeding herds in Kentucky and on Long Island. We've had pictures back and they've done really well. Our own doe's new babies are expected in about 3 weeks so the cycle continues. Per usual, we will have the babies for sale.

I've also been very involved in several local projects – some at the town level and some at the regional level and that has taken a LOT of time! An example – during this past year, one of the groups (Local Food Works – LFW) applied for and got a $250,000 grant to put legs under a local food production, aggregation and distribution campus. If that sounds complex – it is!!! If you're curious, let me know. I'll be HAPPY to get you involved – or at least up to speed!

Happy Spring from the Woody End Farm Family!

A few weeks ago, the inimitable Seth Godin wrote a blog post about "the magnetic generosity of the network effect." In the post, he talks about how a "scarcity mindset" can impact our willingness to share ideas. This can happen, says Seth, when we treat ideas as if we were sharing a pizza. But ideas are not pizza slices! … The exchange of ideas can grow energy and enthusiasm among sharers and recipients.

This is central to the notion of "network effect" – as a network grows, so does the potential of the network. Having connections is only as good as what gets shared through those connections, and in which directions. In other words, networks are made valuable not just through connectivity, but through generosity and mutuality. Curtis Ogden

Now, on to the world of plants – and the challenges thereof…

Have you noticed the dramatic up and down temperature swings through the last few years? You really can't have missed it if you like being outside. Last year, we also had enormous amounts of rain intermixed with long periods of dryness.

Why the weather is changing isn't quite as relevant as what we need to do to manage the swings. Planning and managing a garden in these conditions is a challenge and requires observation skills and flexible thinking. I can't see us hearty North Central Mass folks shifting to succulent gardens, but we do need to maybe rethink how, when, what we plant- and how we manage it long term!

So, let's start with those old friends – *observation and curiosity*. We all used to have these skills in spades when we were kids! I know!! So long ago… well, we need to caste our minds back… Here's what I mean… Start with a mental caste back to last June. we had a heat wave the third week of June that really stressed new transplants not under irrigation. This put a "stop" on the plants – and on un-mulched soil systems as well. Then, July 4th arrives with a stunningly cold, drowning rain. Followed by more rain and LOTS of cloudy days… Ah, such wonderful memories, NOT!

The first tomatoes and ears of corn had almost no flavor and the corn was woody to boot. WHY??? Corn and tomatoes need LOTS of sun to produce sugars for both sweetness and flavor molecules (those pesky secondary plant metabolites!!), and we didn't get that very necessary sun for that marvelous process called photosynthesis (again – those high school memories!!). When were the best tasting corn and tomatoes available? Mid-September. The WARM, SUNNY and reasonable soil moisture time of last year.

Funny thing – we know we have to take care of children and pets if they get cold and wet, but the garden plants that we've also spent time and money on don't get the same thought. We tend to think that they can fend for themselves. Here's the thing, the wildlife and the wild plants are capable of taking care of themselves or they're removed from the ecosystem through various means.

Our domesticated plants and animals have given up some (or a lot!!) of that essential wildness in order to exist in our human world. That means that your plants are not much like their wilder cousins – have you tried to eat prickly lettuce?? There are reasons why we tamed the lettuce plant…and all of the other plants that we plant in our flower and vegetable gardens ☺ but they do require care…

Each time we connect with the natural world, we are entering a kingdom with laws and patterns that are not our own. It us up to us to learn this language patiently and reverently. Learning this language might, at first, be a clunky and uncertain process… like travelling in a land whose language you can't understand… so you rely on observation – the "body language", moods and gestures of the land you have traveled to. This can begin simply by befriending the piece of land that you call home.
Tess Parker, the Substance of Belonging, 2022

What's to be done? …when wild weather patterns happen again – and they will. Well, we can't make the skies clear (or rain for that matter!), but what we ***can*** do is support the plant directly. Within a week of that dramatic weather switch, I had put both liquid drenches and foliar sprays out on to the plants most in need of support. Those plants included roses, tomatoes, zinnias, cucumbers, dahlias etc. The plants that the garden's owners counted on for production of either flowers or food. Remember, the plant's goal is to reproduce itself. It doesn't care what we need from it! If it's weakened too much, of course, it dies. If it weakens less dramatically then it provides one flush of flowers/fruits and then dies! You'll notice that earlier list is a list that has repeat flushes of production – or at least the potential for a repeat…

So, those most energy demanding plants got the drenches and foliar supports to start. Then, as the season progressed and conditions didn't improve, more plants were included in the management process. This included all of the rest of the annuals and vegetables and a good dose of the later blooming perennials. Two reasons for this, satisfying the owner of the garden is one of the goals. The other goal is the support of the local pollinators and beneficial insects that depend on the later season pollens and nectars for their long-term health (and honey!!). It's fascinating to see the swarms of all kinds of pollen and nectar feeders who show up about 24 hours after

a foliar application to a flower border. It's almost magic (except it's not!) ☺

Hands on – Hands in

I want to put in a plug for actually using one's hands to do a job…Most people reading this newsletter, garden one way or another so it may seem ridiculous to bring attention to this, but the world is changing and there are some very interesting gaps developing…

> *"With such a small percentage of people trying to do all the farming in the country, we have a huge rupture between people and ecosystems—**there's not enough human care involved**."*
> —Liz Carlisle, professor of environmental studies at the University of California, Santa Barbara

When I was twelve, my mother decided that her children (there are four of us) needed to learn how to care for others, work with our hands, do "work" even if we didn't feel like it etc. – so she went out and got two milk goats (Buttercup and Lucky), and we started raising our own goats for milk. I only learned these long-term goals of hers many, many years later. I just knew that goats were now part of our every day lives. We joined 4H, went to goat shows, learned all kinds of details about goats and learned a whole lot of other skills that we had no idea we were learning at the time. That was the whole point – to learn by doing in an ongoing and daily pattern. Why am I talking about this now? Well, the skills learned way back then are the backbone of what all of our family brings to the jobs that we do now. When we were children, we had no electricity in the barn so we milked with flashlights until my Dad created a "light" with a car battery and a bulb. The battery had to be hauled out to the car to get it recharged. Now, we flick a switch!! I can remember my Mom's face when we put the electricity in the barn in the early 80's… a dream come true. To this day, I relish the flick of that light switch as we walk in to our barn every morning to milk.

Is this need to work with the hands an essential component of being a human being? It's an interesting question. Through the years, there have been lots of students of various kinds that have worked in the gardens that Greenery in Motion manages during the summer. One weird thing that's become apparent is that an ability to write notes has become optional rather than an expected skill set. The students can't really write down a list of things to do or read a list, in part because some can't read cursive writing. It isn't taught in school anymore and so has become almost a foreign language and writing notes for any reason is almost a lost skill. Obviously, not all of the students have had these gaps, at least I see them as gaps, but enough have that I've noticed.

There are other skills that are fading due to so many factors, and it's worth taking a quick look at some of them because they feed directly into garden and farm management. *True* gardening (not cookie cutter landscaping), real *working* with animals (not confined animal production), *managing* land (not clearing – or ignoring) takes time, patience, and a steady, almost meditative approach. It can't be rushed. It's not mechanical at it's core no matter how much mechanization is layered on top of it. This approach doesn't play well in to the modern commercial culture that dominates but it is an approach that can be learned and is better for both you – and the planet! A twofer!!

As mentioned, it takes time and skill to work with land, either to create a magic garden or to farm acres of land for food and fodder, and that takes years to acquire. In the past, these skills would have been passed down through the generations, so that the critical learning starts when one is five – not 25!! (see the above story!!) There are now large gaps in that progression due to the culture that has evolved since WWII.

I find it more than a little ironic that the agricultural model that was established after the war (easy access to nitrogen and other "quick fix" fertilizers and pesticides based on the petroleum industry – and the "get big or get out" mentality) is taking a major hit this year since both Russia and Ukraine are big players in the chemical manufacture of those same fertilizers and pesticides.
There are plenty of factories in the US as well, but the global shortage has skyrocketed the prices across the "industry" known as agriculture.

Bigger, better more – the age of limitlessness – or its illusion – that is the heritage of the years after the "Great War". I read these words in my philosophy class in a book by Lewis Mumford back in college (way too long ago!). Somehow, I never forgot them

and I find them coming back to haunt me as the modern world spins out around us all. After all, we can now spend millions to send a tourist into space for ten days to do nothing, what a concept of waste. I do realize that there are people who are drawn to space as I am drawn to living systems, but those people take the time to actually understand what space actually is. I wonder what those so selected tourists get from the experience…if anything lasting…

Some of you have heard of Wendell Berry. Here's his thought on this topic:
"We need to confront honestly the issue of scale. Bigness has a charm and a drama that are seductive, especially to politicians and financiers; *but bigness promotes greed, indifference and damage …*"

There is an economic philosophy that details an "invisible hand" (Adam Smith). The idea that "enlightened self-interest" produces the best outcome for the most people. This idea underlies our economic structure and has for well over a century. The problem is that when people (and businesses) pursue their own self-interests they create external costs that are not considered part of the cost of the product. Such external examples include pollution (think plastics) and over-harvesting (think bottom trawling -fishing - that causes irreversible erosion of the sea floor). The entities that cause the damage walk away… This leads to massive costs to society – to us!!! - which are not accounted for in the final cost of the goods. This sounds like where our culture has led us – at least it does to me…

We have been trained for over 70 years to be consumers first and foremost. That's a price driven model that takes everything to the lowest common denominator in time. This has cost us our sense of community. COVID threw all of that training into the air, but then added the critical convenience component of home delivery. There are now huge mixed messages about what it takes to create and maintain human communities; the places you and I live. What does it take to create a vital and viable community that supports its members and all other entities that share the same geographical space? There is current research on the "golden age of wildlife" that is exploding around us. The animals are learning to live around and near us; is that good, or bad, or a relationship to be worked out.

Don't you just love this kind of thick concept writing? Tough to read, I know. Here's the thing though. If we don't understand at least a little bit of how we got here – how can we make better decisions going forward?

Now on to the more practical information
First let's start with some experiments – one that worked (turf lasagna) and one that didn't- or only sort of – worked. You know that I'm always talking about the need to experiment. And I'll repeat that now, but will also tell you a story or two about results – expected and not!

First one up – our front lawn lasagna. Margherita and I live in an *OOOOLD* house with a stone walkway to the street. Our winter parking for cars is on the lawn on the far side of the walk. Last summer, my brother rebuilt the walkway magnificently – with a down slope change in grade of about 2". I looked in to permeable pavers to help fill in the gap. They were expensive and would have created problems elsewhere in the lawn. I got myself caught in the "we must perfectly fix the problem" which was both time consuming and expensive. Margherita took the approach that, since I problem solve on other people's sites, why didn't I problem solve our site and solve the specific problem. We needed the patch to be able to handle foot/snowblower traffic by winter (Labor Day start) and support the stone walk (which had a drop of 1.5" on the down side) and taper it down so that it wasn't either a tripping hazard or a problem for the snow blower.

Here's where the "lasagna" comes in. We have 2 piles of stone dust on hand for nutritional support in the gardens – but they ***are*** structural stone dusts and so they were put to use. The Pandolf Perkins stone dust (a heavier/coarser grit) was layered on the bottom to even out the divots, support the sides of the walk's rocks, etc. Then we added the much finer Mt Tom basalt on top… on top of that, loam was mixed with some of the minerals we use on the HK beds and, of course, grass seed. We scratched that mix into the top of the basalt. It grew in well before the winter and

held up well to shoveling and snow blowing. The path area is coming back to life incredibly well and the "parking lot" area is slowly coming back. But the critical point is that the structural integrity of the stone dust kept stone walk and the parking area secure and still allowed for grass to grow on it. We'll be touching up the seeding this spring, but I can tell you that the worms love the mix and the grass that did make it back is deeper green than any other grass in the front yard, another problem that we're not losing sleep over.

Now on to a tomato story. We normally grow our tomatoes in what we call the "shed bed". We amend it every year so don't worry too much about diseases etc. Margherita had the thought that the south facing HK bed off the greenhouse would do better for the tomatoes than the usual "shed bed" as it would get more sunlight. The squash (usually on the South Side) would go to the shed bed.

While the squash did just fine in the shed bed. The tomatoes were a severe disappointment. Partly that was the season, so very much rain!!! But it also had to do with the base construction of both beds. So, you guessed it, this year the tomatoes will be back in the shed bed and the squashes will be back in the greenhouse HK. I'll even spend a bit more time on some foliar sprays for both so that we have enough to store for the winter. We really missed our own tomato sauce!

And then there are the trees… so many trees under so much stress…

Trees – the "lungs of the earth" – and the visual structure of the living landscape. Personally, I love all kinds of trees, their differences, their strengths and their vulnerabilities. So let's take a closer look at trees.

Trees are essential to the creation of a comfortable landscape. They shade outside living areas as well as the house itself in the summer and help to keep us cool. They break the wind in the winter, easing the fuel bills. And last, but not least, they provide a visual frame for the house and help it to sit well into the landscape.

Many of the trees in our landscapes are showing signs of stress. It's been a hard decade+ for a lot of them and the long-range weather changes will not improve the situation. There have been alternating drought years, warm winters, major ice storms, new insect pests, new diseases and more. All of this is putting a strain on the trees that are important to the quality of the landscape and it's worth spending a little thought on what they need to be healthy. We can't fix the forests but we can help the trees under our care!

Start with making sure that there is a mulch **island** ***(not a mulch volcano!!)*** around them. **The mulch should be 3" thick, tapering to 0" at the trunk.** Remember the idea that wood feeds wood, just like grass (clippings) feeds grass. If available, put a layer of wood chips under the bark mulch. Bark mulch is pretty to look at, but biologically limited. After all, the bark of a tree is supposed to protect the inside of the tree, and contains very little food source in and of itself. The wood chip is actually the kind of food that the critical fungal partners need to support the trees. We have a large sugar maple that was faltering and we've added a 12' diameter wood chip and compost ring around the tree (and planted it with spring bulbs, really pretty right now!!)

The tight doughnut look (the classic volcano where the trunk erupts out of the center) that is so common is very damaging to the lower bark/flare and can weaken that essential part of the tree. Trees in the wild have a cleanly exposed flare at the base and, except in rare instances, do not exist in grassy areas. There are many studies that show that tree roots and grass roots are often in conflict under the surface. If you have a weak tree, sacrifice some of the grass and give it a wider mulch bed. You can always plant perennials in the bed so the bed looks good.

Next, think about changing your fertilizer program from a chemical product to an organic product. Natural and organic products have a wider variety of minerals and provide a wide array of micro-minerals. This complexity greatly increases the stability of the soil food web that is essential to the health of the trees (trees are fungally dominant). Read the labels!!! You want more than two – three sources of nutrition listed. Think plant protein meals (alfalfa meal, cottonseed meal), ground raw rocks (like greensand,

rock phosphate) fish and animal proteins (blood meal, feather and leather meals).

Think of also adding

Azomite - a micronized energetic clay that has a stimulating effect on soil biology and on tree circulation. I've been using it for the last 25 years, experimenting with it and watching the results. It has a stabilizing effect on trees. The leaves are greener, but they don't grow extravagantly and that's a good thing for mature trees. Very fast growth on mature trees can lead to weak tissue and weak limbs. We used this on the sugar maple I mentioned.

Gypsum is calcium sulfate and works to minimize salt damage without changing pH– breaks the Na Cl bond and allows the sodium to leach. Does need water for this to happen so make sure to water your street trees in a dry spring.

Greensand is potassium iron silicate and is helpful all the way around in developing healthy stems and leaves. It's a funny product – absorbs and holds water so helps with sandy soils but also helps to break up heavy clays and allow for water and air to move.

Soil Activator is finely ground leonardite (a soft, brown coal) and provides a long term humic and fulvic acid source –again critical to healthy tree and shrub roots. Think of this as the most stable form of compost you could possibly add to your soil.

> "We only have one process by which we can restore soils and bio-systems and thus the soil's ability to safely cool the climate. The process is to reverse the ratio of carbon oxidation to bio-sequestration, in order to regenerate the resilience and hydrology of the soil carbon sponge. We can do this via our management of our soils and landscapes." - Walter Jehne

Soft Rock Phosphate is ground rock high in both phosphorus and calcium – both essential for plant health. Calcium is the strength of the tree's body – just like in humans (it's also the mineral that drives a lot of the other mineral transactions). Phosphorus is used in rooting, bud development and is part of the essential mineral molecule ATP that's found in both plants and animals.

Alfalfa meal acts to enhance soil biology and stimulates root production. If you use wood chip as part of your mulching strategy, the alfalfa meal will speed up the wood chip break down and enhance the effectiveness of the chip. I use alfalfa meal in every planting job – annual, perennial, tree or shrub.

And last (but not least!), water the trees from September through November. This is a critical time for trees as they absorb and bind water into their tissue for the push next spring. This will use a lot of water, about an inch at a time every week until leaf drop and then every other week until you can't stand it anymore. Think about down spout barrels or gray water if there is a water ban in effect.

Pruning: Going sideways to go up…

Now, we're going to take a jaunt into tree pruning, not in super detail (although always remember to cut to the outside of the branch collar!!) but as a survey of what pruning is used for. On the surface, pruning's use is direct, and often to reduce the volume of the plant in front of us, but why we choose to do it is the real issue. For more, very clear details on pruning mechanics – check out any of the books written by Dr. Alex Shigo. He taught me more than almost anyone I've ever listened to.

Here are the four goals of pruning: line clearing, structural, production, and aesthetics.

Let's get the **line clearing** out of the way first. That's going to happen to keep the loss of electricity during storms to a minimum. You can call the power company if you have a tree that you are managing well and it's in the line crew's way. They will skip your tree! We did that with the maple I mentioned earlier after an earlier crew decimated the street side of the tree. We paid to rebalance it and now manage it completely.

Next, **structural.** This is the homeowner version of the line clearing approach. The point is to keep the trees near the home structurally balanced so that an ice storm or other storm has a minimal chance to shear off large limbs. One of the things that trees do in flood/drought pulses is hyper-extend their growing tips, and weaken their roots. If that happens for a couple of years, then an ice storm can cause enormous damage. Remember back to the ice storm of 2008? The summer season before that had created a really strong hyper extension in the trees. I remember looking up

at our front yard tree in September and thinking that I had to get it pruned when money freed up and then Dec. 8th arrived and that became a moot point. We lost the crowns of almost every tree all across the farm, that's what happens when the structural balances of the trees are re-established by mother nature. She was not a kind pruner.

This past year, we re-pruned one of the trees damaged in 2008, because the tree's response through the intervening years was to grow super wide and hyper elongated. So, this past October, we had the tree re-structured – taking off three very large side branches and re-establishing the upper movement of the tree's crown. Looks weird right now but the new growth over the next couple of years should fill it in and, hopefully, we'll never have to make severe kind of cuts like that again.

Now on to **production pruning**. This is the kind of pruning that home orchardists need to learn to manage. Apples, pears, cherries, plums, apricots, peaches etc. All of these trees are grown for the food that they produce. Here's the kicker though…all fruit bearing trees overgrow both branches and flowers (potential fruit). If you want reliable fruit production, then your fruit trees need to be pruned annually. Start with the apples in the deepest cold and work your way out in to late winter with the peaches (peaches are cold sensitive and will be damaged if pruned too early in the winter). The goal is to reduce the fruiting spurs to reasonable levels (so that the tree doesn't over produce) and to open up the center of the tree enough for air to move smoothly through the branches. Quick drying after any rain event is the cheapest way of reducing pesticide use.

And last there is **aesthetic pruning** – my personal favorite. This is where the human helps to bring out the best in the tree by clarifying the best of the tree's structure or sharply tailoring the trees potential to ornamental norms. The best candidates for this are, of course, the Japanese maples and the topiaries, espaliers, and bonsai projects that can be developed. One cool thing is that the skills needed for this kind of pruning can be used for **all** kinds of pruning. I routinely use them even in structural work. If you're interested in learning this kind of pruning then take the time to truly study the trees that you're working with. Learn how the species grows and then how the cultivar you're working with is different. And this approach takes TIME!!! Very few of the cuts are fast… and you often use the back of your sub-dominant hand to find the clusters for thinning – not your eyes! And finger plucking is a useful skill…

We'll wrap this look at trees with the story of the tree reclamation projection that is underway on Westminster's town common. As mentioned at the beginning, trees everywhere are under stress and trees on common land are NO exception to that analysis! The trees that ring the common have been wrapped up into a rehab of the common (work on the grass is scheduled for the next steps). All of the most damaged or otherwise "at risk" trees have been removed and new trees were planted last May to replace many of those that were removed. The remaining trees are a mix of sugar, red and Norway maples. They're in rough shape, but salvageable (we all think!!).

Last November, all of the remaining trees were professionally pruned and the flairs (where the tree trunk touches the soil) were cleared of grass. The town's DPW had created a nutrient rich "mulch" with minerals worked into a mix of old and new wood chip and allowed to "cook" for about 4 weeks before we spread it.

It sounds so easy, doesn't it? You know there's more to the story!! As mentioned, the goal was to remove the grass from the flares – the arborist had an air spade (a tool that uses forced air to cut into soil – it doesn't damage the roots) that we tried to use on the grass that had grown onto the flares – and it couldn't do it!! The grass was a fine fescue mat and it couldn't be air spaded! The arborist had me stand on the mat -about 4' from the tree. He put the air spade into a hole that he had cut into the mat and lifted both the mat and ME!!! And it didn't break! Shovels didn't work… The rest of job was knife work…it was the ONLY tool that would actually do the job. It was grueling work…

Grasses and tree roots do not naturally grow together – the "open woodland park" is a man-made concept and this was the proof. There were almost no surface oriented tree roots under the fescue mat. This means that the easiest sources of water and nutrition were unavailable to the trees. No wonder they were

faltering! This year, we'll add another layer of nutrient rich mulch and let the season do its work. We should see the improvement next year. Old trees, weak trees, take time to recover and store energy well again -again – kind of like us!

Moving on to Worms: European, jumping (the REAL challenge)– and the very few natives

Did you know that almost all of the earthworms in the Northeast are introduced? In fact, that sentence would have been ALL except for a few worm transplants from the southern states. Those pesky glaciers (10,000-15,000 years ago, the ones who left all of the rocks in our gardens) scoured the native worm populations out of the region as far south as the Carolinas. All of our worms come from Europe, from Asia, even a few from Africa and South America. For most of us, the standard night crawler is the one we know the best, and that's from Europe. Why am I bringing this up? There's a new player (actually 4 different species, but the results are pretty much the same) in town and it's causing problems. The zoological name is *Amynthas* spp. It's the common names that are so evocative (and surprisingly accurate!). These are the jumping worms, crazy worms, snake worms – take your pick. They are truly different worms that are MUCH more damaging than they are helpful.

*"They cause the damage by **voraciously** devouring the organic layer of the soil while feeding **very close** to the soil surface, unlike other species of earthworms. When you brush your hands across soil that they have moved into – they sort of boil up onto the top of the soil. In woodland areas, they can quickly eat all of the leaf litter on the forest floor. Jumping worms also leave a distinct grainy soil full of worm castings. **The soil becomes granular and will look like dried coffee grounds."***
Wikipedia

I've had personal experience with these worms and the behavior and soil texture are exactly as I just described. Here's the problem, they LOVE wood, bark, leaf litter (think of them lose in the forest, NIGHTMARE). There are no controls that you can buy that don't cause even more damage than the worms do. This is one of the trickiest problems I've come across.

Enter the ducks!!!
Now for the slightly better news. You will read that "there are no research-based management options available" and that is true. However, you can use their lifecycle against them. I found this out by accident on a heavily infested site that I was at my wits end to manage. Here's the story… Jumping worms die off every winter, leaving almost invisible egg sacks behind. These egg sacks are almost completely protected from external threats so the control isn't at this stage. They hatch every spring once the soil is warm enough – about mid-May and start to grow like crazy. You won't see them then, but that's when you can really interfere with them.

Here's what happened next… I had decided not to mulch that year because all we were doing was feeding the worms and the plants were being destroyed by the worm activity so something had to change. We did several rounds of hand weeding (and wasn't that fun!!) – then - Ta Da – the small duck flock from just over the hill came up and went through the beds almost daily (a relative of the homeowner so ok!). It wasn't supposed to happen, but I realized pretty quickly (because of the weeding) that the worms' numbers were falling – and they were being eaten before they reached sexual maturity in late August!!! Hallelujah! Most of the problem went down the duck's gullets! Now, I do realize that this is not a solution that can be packaged and sold at volume, but it is a surefire way to interrupt the jumping worm cycle in small or otherwise contained settings.

One other fact, has to be ducks! Much less destructive than chickens – and chickens WON'T TOUCH a jumping worm at all! Got to love ducks ☺ The ducks fed two years ago and the worm population was decimated. We mulched normally last year and held on to most of it. There are a few pockets of activity starting to get going again. I'm thinking of raking those areas out in late June and taking them home to our own duck flock. Remove the worms. Feed the birds. Perhaps there's something marketable in this after all!!!

Whatever you think you can do or believe you can do, begin it. Action has magic, grace, and power in it." *W.H. Murray The Scottish Himalayan Expedition*

The *MYTH* of the low maintenance garden!

If I had a penny for every time someone wanted a "low maintenance garden", I'd be independently wealthy!!! There is **no such thing!!** If all humans (and their "maintenance") disappeared from New England overnight – what would happen?

Most of us have heard the term – second growth forest. That refers to the mass migration of farmers out to the Midwest prairies as our more fragile New England soils were degraded to very low production and the black soils of the prairie beckoned. The Homestead Act of 1862 cemented the move. Free land!!! Irresistible!! New England farms were abandoned. And the forests came back in a stunningly short time (geologically speaking). Our ecosystem naturally grows trees with very limited meadows and edges based on fire and beaver swamps slowly filling with sediment - that's it. ALL of our gardens – of whatever kinds – ARE NOT A NATURAL EVENT!!!!! This doesn't mean we shouldn't garden – it just means we need to think!!

Throughout the last 35 years, I've worked with all kinds of gardens and gardeners. I've worked with the most meticulous homeowners where every single piece of their 14 acres was documented and managed (This was in Brookline, MA and money was no object - I learned A LOT!!! – and learned how insane that approach really is). I've also worked with a homeowner who hated her neighbors and neighborhood – was only there because of her husband's work. She had planted every inch of her suburban yard with a mélange of plants. I started working for her when the jungle threatened the house. We worked out an intricate but narrow path construct around the house and back yard and managed it carefully to keep as much as growth as possible while keeping the paths and house envelope functional. She loved the fact that her unmanicured yard was the home to an assortment of birds and wildlife that had no other hold in her neighborhood.

Being naturalized to place means to live as if this is the land that feeds you, as if these are the streams from which you will drink, that build your body and fill your spirit… to become naturalized is to take care of the land as if our lives and the lives of all our children depend on it – because they do! Robin Wall Kimmerer

And then there's my Dad's house…He built a unique house in Ashburnham and cared only for the inside of the house and nothing at all for the outside and yard. Weird that he and I are related, but there you have it. He left the sand from the original construction activity to settle and produce whatever plants it wanted and that was that. So, it grew white pine, grey birch, grey dogwood, Canadian mayflower and on and on. In other words, the natives re-established themselves. That is the true to local ecology low maintenance garden for you! I can guarantee that the maintenance cost was absolutely minimal!

There are, of course, many gradations on those three themes and all homeowners find themselves having to find out where they fit, what they want to manage and how much they're invested in the land itself. An unusual concept for many, but an absolute for others.

There's also the reality that gardens change through time both through ecological and successional pressures and because the needs of the gardener change. The trick is to find a way to work with the real situation on the ground!

Option one: one of the easiest transitions to "solve"… say that you buy a house as an investment for the future and you want to get your investment back in 5-7 years. You buy the house. Set up a professional management for your corner of the universe to keep its external investment roughly in line and sell the house when you move on. If the landscape is truly outdated when you move in, you do the reset up on arrival and it's nicely grown in by departure time. No worries about complexity and very little investment other than the professional maintenance. Huge numbers of properties are managed this way.

Now for more interesting transitions…

Option two: you're tired to death of having to "manage" your yard. It doesn't interest you - it's hot and sweaty work and you NEVER know what's going on anyways!!. Properties like this go one of two ways. One version regrows white pine, birches and other wild shrubs and trees and has to be cleared on changing hands. The other version has a bit more thought behind it. All of the past gardens, children's play areas etc. are turned back in to "grass". Not a manicured blue grass lawn but an "All American

Lawn" of mowing whatever's grown in. This is actually not a bad default. It leaves future uses of the property and it allows a surprising diversity of plant material to move into the soil system. With only a small amount of extra care, the mixed species turf can be somewhat of an asset to the local ecology.

Option three: The gradual pull back. This is what happens when a gardener who has loved the gardens has to pull back due to age or other time demanding issues. This happens to all gardeners at some time because gardening is physically demanding, time consuming work. Doesn't mean you don't love it – of course you do!! It just means that the scope needs to shrink a bit.

This means that all of the most favorite plants that can be moved are moved to more immediately accessible and visual areas and the remaining areas are allowed to grow largely unregulated. This means the there will be losses of varieties as more aggressive plants take up available growing space. Shrubs and trees can be added to perennial gardens and allowed to outcompete the perennials and slowly turn the time-consuming perennial border into a much wilder shrub/tree border. The alternative is to grass over gardens after removing or killing off the perennials and adding it the mowing contract. Both of these are much less maintenance than a mixed border – much less colorful and species supportive are visible but the work load drops dramatically.

Option four: The need to garden remains STRONG!!! But the ground is so far away!!!! Then raised beds are the answer. Containers and raised beds are also perfect for condos, urban areas, over built areas and decks. The possibilities are astounding! I've worked with raised beds of all kinds for over 30 years and love what they can do for all kinds of people. The key, of course, is to know how to build them for long term success ☺.

Raised beds/containers are a boon to anyone who can't get down on the ground and can be placed anywhere regardless of soil quality (or no soil at all) below the bed…But…a lot of raised beds don't thrive and produce. Many raised beds flourish in their first year – and then falter and produce almost nothing by the third year. I hate to start with a negative – but here's why they fail!

1. The soil is not prepared well – get a soil test, add organic material and balance minerals
2. There's not enough nutrition to support the number of plants in the bed – plan to add fertilizers to the soil and foliar sprays to the leaf surfaces starting no later than mid-July
3. The bed becomes compacted and hyper dry. Maintaining soil structure is critical to allow for adequate watering in the heat of summer – and raised beds really use water. Set up irrigation if possible. Use soapy water (1/4 cup/5 gall water and drench) for hyper dry soils. Let rest and then water as normal.
4. The bed becomes saturated. Ditto for the soil structure. Make sure there's some way for water to exit the bed in case of torrential water events.
5. The bed isn't mulched. Use anything that you can find or tolerate visually and get that soil covered from day one of planting.

Never forget that your best assets are your eyes and other senses – tweak this information and make it work for you. Use soil tests, compaction tests, visual and textural tests and any other source of information you can find to help you unwind the history and the reality of any given soil situation.

Check out this worksheet on the website that provides A LOT more detail – and then there's the book: Growing Up! It has all of the tips needed to succeed! http://www.greeneryinmotion.com/Raised-Beds.html

The opposite of addiction is not sobriety. <u>The opposite of addiction is connection.</u> And our whole society, the engine of our society, is geared towards making us connect with <u>things not people</u>. If you are not a good consumer capitalist citizen, if you're spending your time bonding with the people around you and not buying stuff—in fact, we are trained from a very young age to focus our hopes and our dreams and our ambitions on things we can buy and consume. And drug addiction is really a subset of that."~ Johann Hari