

## Soil Management: Practical Tips for Fertilizers and Amendments

Goal: to develop healthy soils that persist beyond the current owner and landscaper – soils that help to maintain diversity at all levels of the living community

### Favorite soil amendments used throughout the growing season:

Straight products:

- Alfalfa meal, greensand, azomite, calcitic lime, rock phosphorus, gypsum, liquid kelp

Blended products –

- **North Country Organic's** (NCO) Pro-Gro, Pro-Start, Pro-Boost, Pro-Holly
- **Fertrell's** Rose special
- **Ocean Organic's** GBS Bio-stimulant and EnviGreen (has some urea etc [ecological but not organic program allowed] but has the kelp and alfalfa meal plus micro – organisms – results have been excellent)
- **Neptune's Harvest** Fish hydrolysate (not emulsion!) - especially good on begonias and all vegetables if they need a pick me up. Used it extensively after all of the rain earlier in the season.

### Favorite soil management recipes:

Basic planting mix – used in all annual and perennial installations. Rate adjusted by type and vitality of plant material and history of the garden. This is mixed together on a large tarp and stored in sealed plastic containers. I mix about 3 batches a year.

100 lbs NCO Pro Gro  
100 lbs Alfalfa meal  
40 lbs Azomite

The gardens in these photos have been fertilized using the basic planting mix.



Woody planting mix – developed to try and get ericaceous material to settle in faster but found that it works really well for all woody material – even a bare rooted, 3.5” caliper locust in late May this year. Prep the roots for planting. Coat the root balls with the mix (work in well with fingers or knife) and work more mix into the top 6” of the soil.

50 lbs Alfalfa meal  
50 lbs Jersey Greensand  
40 lbs Azomite  
and this year 10 lbs Ocean Organics GBS (Bio-stimulant)

Elemental Sulfur, Gypsum and Rock phosphate are added based on soil test results or known problems on the site.

Fall soil development mix – used in open gardens that are coming in to production, edges of existing gardens that need refreshing or other soils that need to open up (compaction etc.) It’s spread on the surface at the rate of about 25-lbs/100 sq ft and either rototilled in if the bed is open or hand cultivated if the bed is already planted. Promotes a strong bacterial reaction and feeds the worms well – they develop heavy muscles (almost blue in color) that allow them to really turn soil.

100 lbs Layer Mash – non medicated (chicken food)  
100 lbs Greensand  
40 lbs Azomite  
80 lbs Gypsum

Last year stone dust from a local quarry was added to the mix for a couple of beds where too much organic material had accumulated – results this year are spectacular.

The following gardens have been fertilized using the general planting mix along with the fall development mix.





## Odd mix out

Liquid blend for containers and annuals that need to be held in full color until late in the season – for a wedding or other outdoor event.

In 32 gallon trash can:

2 cups Miracle Gro (I know – heretical!), 1.5 cups liquid kelp and 2 cups molasses. Mix together well and water as usual. Molasses provides an instant source of carbon to buffer the fast nitrate in the Miracle Gro and the kelp helps to provide tolerance to the stresses of containerization or cold or both. This can also be worked up in a watering can at a 1-1-1 ration of a tablespoon each per gallon.

This container looks great in September using this liquid blend.



## Caveat

I do want to make clear that I am not a soil scientist – or scientist of any kind. I do have a bachelor degree but it is in animal science not plant science. Everything that I now know and work with has come from experience and the need to meet my client's expectations and my personal goal of creating healthy gardens. I provide complex, integrated and colorful gardens of all kinds to clients who love to be out in their gardens and appreciate the diversity that is found there. Over the last 19 years I have tightened down the formulas that I use as the baseline for all of the gardens I manage. It is an intensive program and definitely not for everyone – or even for most people. I have used this information in a night school program for home landscapers (10 years) and have heard from people over the years that it works for them as well. They don't apply it as intensively as I do but the results still work better than anything else that they have tried.

Never forget that your best assets are your eyes and other senses – tweak these formulas so that they work for you. These formulas were worked out for the central upland area of Massachusetts – essentially Worcester County – and would need considerable adjustment for other distinctly different geographies. 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.

Here's to growing great gardens!

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