

PLANTS FOR WET OR MOIST SOILS

There are wet soils, but also wet soils that have poor drainage; because drainage does not pertain to the flow of surface water, rather to the movement of water through the soil. Heavy clay soils that do not drain, and smell funny are notorious in urban and suburban areas today. Even the toughest plants will have difficulty establishing themselves in this type of muck. These sites could produce better plant survival if the existing soil was improved.

PERENNIALS

<i>Aruncus dioicus</i>	Goatsbeard
<i>Asclepias incarnate</i>	Swamp Milkweed
<i>Aster novae-angiae</i>	New England Aster
<i>Astilbe</i>	Astilbe
<i>Caltha palustris</i>	Marsh Marigold
<i>Chelone</i>	Turtlehead
<i>Cimicifuga racemosa</i>	Black Snakeroot
<i>Eupatorium purpurium</i>	Joe-pye Weed
<i>Filipendula</i>	Meadowsweet
<i>Geranium</i>	Hardy Geranium
<i>Geum rivale</i>	Water Avens
<i>Hosta</i>	Hosta
<i>Iris pseudoacorus</i>	Yellow Flag
<i>Iris siberica</i>	Siberian Iris
<i>Ligularia</i>	Ligularia
<i>Lobelia cardinalis</i>	Cardinal Flower
<i>Lobelia siphilitica</i>	Great Blue Lobelia
<i>Mentha</i>	Mint
<i>Mertensia virginica</i>	Virginian Bluebells
<i>Monarda didyma</i>	Beebalm
<i>Myosotis scorpioides</i>	Forget-me-not
<i>Ranunculus</i>	Buttercups
<i>Thalictrum</i>	Meadow Rue
<i>Valeriana officinalis</i>	Valerain

SHRUB

<i>Aronia</i>	Chokeberry
<i>Calycanthus floridus</i>	Carolina Allspice
<i>Clethra alnifolia</i>	Summersweet
<i>Cornus sericea</i>	Redtwig Dogwood
<i>Ilex glabra</i>	Inkberry Holly
<i>Ilex verticillata</i>	Winterberry
<i>Itea virginica</i>	Sweetspire
<i>Salix caprea</i>	Pussywillow
<i>Salix purpurea</i>	Purpleosier Willow
<i>Vaccinium corymbosum</i>	Blueberry
<i>Viburnum dentatum</i>	Arrowwood Viburnum
<i>Viburnum trilobum</i>	American Cranberry

TREES

<i>Acer rubrum</i>	Red Maple
<i>Acer saccharinum</i>	Silver Maple
<i>Alnus glutinosa</i>	Black Alder
<i>Betula nigra</i>	River Birch
<i>Carpinus caroliniana</i>	Amer. Hornbeam
<i>Fraxinus pennsylvanica</i>	Green Ash
<i>Salix alba</i>	Weeping Willow
<i>Gleditsia triacanthos</i>	Honeylocust
<i>Taxodium distichum</i>	Baldcypress
<i>Liriodendron tulipifera</i>	Tuliptree
<i>Platanus occidentalis</i>	Sycamore
<i>Quercus palustris</i>	Pin Oak

EVERGREENS

<i>Picea glauca</i>	White Spruce
<i>Tsuga canadensis</i>	Canadian Hemlock

PLANTS FOR:

POOR SOILS DRY SOILS
WET SOILS



PLATT HILL NURSERY

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Top 5 Urban Soil Problems

- Alkalinity
- High Salt Levels
- Poor Drainage
- Compaction
- Lack of Organic Matter

ALKALINITY of the soil, reflected by a high pH, affects nutrient availability. Iron, manganese, copper, and zinc are less available as soils become alkaline. These imbalances are often seen as yellowing of leaf tissue between veins called chlorosis.

HIGH SALT LEVELS in the soil arrive from deicing salts and fertilizers. If concentrated in the soil, salts can draw moisture from plants back into the soil. Use alternative deicers which do not contain sodium or chloride. Excessive use of fertilizers can cause the same type of damage. Watering plants, in addition to normal rainfall, will help flush the salts below the root zone and aid in alleviating salt build-up over the course of time. Gypsum can be effective in amending soils high in sodium.

POOR DRAINAGE is often the result of compaction. Compacted soils prevent the percolation of water through the soil.

COMPACTION is very common in urban areas. Compaction relates to the closing of the necessary pores within the soil which allow the movement of water, oxygen, and root growth. During wet periods, poor drainage will cause water to sit on top of a compacted soil surface rather than percolate into the soil. When the compacted soils are dry, they are nearly impossible to excavate. Planting holes can become com-

pacted during digging, allowing water to collect in the bottom of the hole. In such a situation plants may die to a lack of aeration. Wet soils and soils high in clay are prone to compaction with vehicles and foot traffic responsible for the compaction.

To remedy compacted soils, it is recommended to core aerate and add organic matter. Core aeration is often used on lawns by removing small cores of surface soil resulting in the easement of water and air movement through the soil. In areas without lawns, organic mulch can be added. As organic matter decomposes, it promotes the formation of soil aggregates. These aggregates create pore space in the soil.

LACK OF ORGANIC MATTER is the result of intensive farming, soil erosion, and removal of existing topsoil from a site during development. Necessary to alleviate compaction, topsoil, peat, and compost are best incorporated during bed preparation.

PLANTS FOR DRY OR POOR SOILS

SHRUB

- | | |
|--------------------------------|----------------------|
| <i>Berberis</i> | Barberry |
| <i>Cotinus coggygria</i> | Smokebush |
| <i>Cotoneaster</i> | Cotoneaster |
| <i>Deutzia</i> | Deutzia |
| <i>Ligustrum</i> | Privet |
| <i>Physocarpus opulifolius</i> | Ninebark |
| <i>Potentilla fruticosa</i> | Potentilla |
| <i>Rhus</i> | Sumac |
| <i>Spiraea</i> | Spirea |
| <i>Symphoricarpos</i> | Coralberry/Snowberry |

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|--------------------------|-----------------------|
| <i>Syringa meyeri</i> | Meyeri Lilac |
| <i>Viburnum dentatum</i> | Arrowwood
Viburnum |
| <i>Viburnum lantana</i> | Wayfaring Bush |
| <i>Yucca filamentosa</i> | Yucca |

PERENNIALS

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|-------------------------------|-------------------|
| <i>Achillea</i> | Yarrow |
| <i>Artemisia</i> | Artemisia |
| <i>Asclepia tuberosa</i> | Butterfly Weed |
| <i>Baptisia australis</i> | Blue False Indigo |
| <i>Centaurea cyanus</i> | Bachelor's Button |
| <i>Coreopsis</i> | Coreopsis |
| <i>Echinacea purpurea</i> | Purple Coneflower |
| <i>Echinops</i> | Globe Thistle |
| <i>Eryngium</i> | Sea Holly |
| <i>Euphorbia</i> | Euphorbia |
| <i>Gaillardia grandiflora</i> | Blanketflower |
| <i>Gaura</i> | Gaura |
| <i>Hemerocallis</i> | Daylily |
| <i>Liatris</i> | Gayfeather |
| <i>Limonium</i> | Sea Lavender |
| <i>Nepeta</i> | Catmint |
| <i>Penstemon</i> | Penstemon |
| <i>Rudibeckia</i> | Black-eyed Susan |
| <i>Salvia</i> | Salvia |
| <i>Sedum</i> | Sedum |
| <i>Semprerivum</i> | Hen-and-Chicks |
| <i>Stachys byzanatina</i> | Lamb's Ear |
| <i>Thymus</i> | Thyme |
| <i>Verbena</i> | Verbena |

TREE

- | | |
|-------------------------------|-------------------|
| <i>Catalpa speciosa</i> | Catalpa |
| <i>Crataegus</i> | Hawthorn |
| <i>Fraxinus pennsylvanica</i> | Green Ash |
| <i>Pyrus calleryana</i> | Flowering Pear |
| <i>Quercus palustris</i> | Pin Oak |
| <i>Tilia cordata</i> | Littleleaf Linden |