

Wisconsin Hardy Plant Society

2009 WPT Garden Expo Lecture

How to Build and/or Improve a Successful Shade Garden

Ed Lyon, Director, Allen Centennial Gardens and Spellbound Garden Writing & Consultation

Background

- This talk is the result of building two shade gardens and photographing the process
- You'll learn more from my (and others') mistakes than from what I've done right!

Garden #1 Started 1998: The Problem

- Couldn't say no to free "soil"! Bad topsoil used to build beds (free because State dug out of highway ditch)
- Plant loss, unthrifty plants, took 5-6 years to correct but can be done without starting over
- Years of adding organic matter, **both** spring and fall

Building From Scratch

It is rare that you will not have to amend the soil with additional organic matter.

May also have to improve drainage, fertility and other issues.

If you are building a bed on clay soils, you may want to increase the amount of components and height of bed.

On Trees

Arborist view—Don't put anything over root system

Natural Woodland—several inches of debris accumulate every year

- Use moderation, add gradually, higher berms possible farther out from tree; don't berm up and around the base (flare) of the tree.
- Additional watering of perennial ground and understory layer ultimately helps trees that otherwise would not be watered during drought stress.

Note: Roots of most trees *will* grow up into your perennial beds, another reason to keep adding organic matter every year.

A Little Knowledge Goes a Long Way

- Planning
- Preparation
- Research

Ways to Make Plants Low Maintenance BEFORE Selection and Planting

- Plant the right plant in the right place!
- Size
- Culture
- Minimize pruning and shearing.
- Watch aggressive spreaders and seeders.
- Shade is not a bad thing!
- Maximize trees and shrubs over annuals and even perennials.

Plant Survival is About More Than Just Zone Hardiness!

The Importance of SOIL

- Critical to examine before starting!
- Good quality soil needs
- Pore space for air and water (50-50 pore to soil good)
- Provides ability of air to reach roots
- Provides drainage

Organic Matter

This is where plants in nature get their nutrition, no need for inorganic fertilizers with rich organic matter

Sources for the Home Owner

- Composted leaves
- Shredded bark
- Decomposed manures
- Lawn clippings (best mixed)
- Home food compost
- Shredded paper or cardboard

Brings Down pH (but only some!)

(Note: Midwest water and rain raises pH quickly! Difficult to keep low)

- Peat and peat moss
- Pine needles (very slow to decay)
- Pine bark mulch (slow to decay)
- Straw (incorporate fully)

Addition of Inorganic Necessities

Sulphur

Fertilizer, first year only unless problems.

Others—micronutrients, etc.

A Good General Soil Mix

“Garden Mix” (equal parts sand, organic matter, soil—can vary percentages according to specific needs)

The Importance of Roots

Why drainage (porosity of soil; ideal 50% air, 50% particle) and organic matter are important

- **Deep roots help the plant survive dry periods**
- Deep roots help the plant to survive Midwest winters

Watering and Fertilizer Issues

We tend to both over water and over fertilize! What does this mean to plant health and longevity?

Watering

Do not water every area every day it is hot. You cannot water deep enough every day. Plants become dependent on water on a continuous basis and send roots outward, rather than down. They will not survive drought or winter cold with shallow roots. Instead, pick one area to water and soak it deep and thorough. Water another area the next day, and keep moving this way each day. Let individual areas go to wilt; wilt stimulates plant hormones to put down deeper roots.

Fertilizer

If you have good organic matter, you need very little fertilizer for perennials, trees, and shrubs. Excess fertilizer makes plants grow taller and weaker (fertilizer causes fast elongation of cells) plants that may then require staking. Also, roots become dependent on nutrients being supplied in the upper soil layer and again grow shallow rather than deep.

pH

- pH—Some plants prefer acidity or alkalinity—others are amendable
- Fairly easy to increase pH, very difficult to both decrease and maintain low pH
- Climatic Conditions
- Wind, exposure; Summer and winter sun exposure
- Frosts, rainfall, other climatic conditions

Design Secret

- Start by creating the “permanent” structure of the beds, the mid-scale ornamental trees and shrubs (reflects the understory and shrub layers of the forest)
- Next create the “foundation” for the perennial (ground layer) design (the route you want the eye to follow) by using the two extremes in texture planted together—the ferns and hostas.
- Next, add “weavers” to pull design into unity—I use *Hachonechloa* grass cultivars, it appears in all areas of my garden, weaving together individual components to make the garden look unified.
- Once you have this accomplished: Structure, foundation, textural contrast and weavers, you can place any of the rest of the perennials in between and you have a design pleasing to the eye!

In a new garden, use annuals fill in the bare spaces.

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