

Growing the Midwest Garden (Published by Timber Press May 2015)

Edward Lyon

THE BOOK

- Acknowledging Your Roots: Gardening in the Midwest
- Overcoming Obstacles: Cultural Considerations
 - Soils and Culture
- Low Impact Gardening
- More than Prairie Gardens: Innovative Garden Designs
- From Abelia to Yucca: A Midwest Plant Palette
 - Trees & Shrubs
 - Perennials

The Road Leading up to the Book

Talks:

Plants Don't Die, We Kill Plants

It's All About Culture

New Plants: Promise & Reality

And articles such as:

Heuchera: The Midwest Shrinking Violet

Stars in Our Eyes

Acknowledging Your Roots: Gardening in the Midwest

Hardiness: The predominant environmental determinant for a gardener purchasing plants for the home landscape, almost to exclusion of any other factors

What does the gardener use as number 1 determinant of hardiness?

Zone: The number one determinant of Hardiness

Zone 5 example

Culture: The Difference of 275 miles

Regional Differences

- Zone
- Climate
- Culture
- Geography

We need to be selecting plants based on the awareness of our Region.

THE MIDWEST

The Mistake the Industry has Made in Overemphasizing ZONE! (especially in marketing pieces and plant tags).

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REGION: The Midwest is different from every other region of the country! Dramatically! From extreme heat and humidity in summer to extreme cold and lack of humidity in winter.

STATE: In Wisconsin alone, conditions range from zone 3 to 6, pH 6.0 to 8.5, from clay to pure sand, Lake Michigan moderation to wind swept bluffs, and on and on... Iowa may be somewhat more consistent but still contains very different geographical areas

LOCALITY: Rural versus urban. Microclimates. Disturbed soils versus improved sites. On and on....

There is so much more than zone affecting how plants look compared to their marketing image: GEOGRAPHY, CLIMATE, CULTURE!

There may be variations in appearance compared to marketing image based on region!

Zonal Envy – It is a Real Thing but Goes Beyond Just Zone: Be Glad You Don't Live in the Plains!

Know the climatic, cultural and geographical differences – regional, local, property site

- pH
- Rainfall
- Microclimates
- Soil types
- Predominant bedrock and organic matter source
- Shade/sun
- Wind
- Geophysical Provinces

Midwest: sedimentary sandstone, shales, limestone and dolomite

Coastal Plain: sedimentary clays found in Cretaceous rocks

Piedmont: sand, clay and glauconitic clay

East Coast bedrock: metamorphic & igneous

Habitat (Vegetation) Type

Wisconsin: Temperate Broadleaf and Mixed Forests, Iowa Temperate Grasslands, Savannas, and Shrublands

The heavily acidic coastal plains areas are Temperate Coniferous Forest

Most of East Coast is Temperate Broadleaf and Mixed Forests

Maintaining Our "Sense of Place"

Chapter 2: Overcoming Obstacles: Cultural Considerations

What is native/indigenous?

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- Temperate Broadleaf and Mixed Forests
- Temperate Grasslands, Savannas, and Shrublands

Example: “Native” plants promoted in Madison, WI area focus on prairie. However, that area was indigenously woodland.

Even prairie varies: shortgrass, mixed grass, tall grass, savannah.

Which is the Midwest Garden?

- The Book Cover – What Represents a Midwest Garden? Overcoming Stereotypes.
- Not a Midwest Garden!

Midwest Winters are Severe and Long

And then there is the Midwest spring...a more insidious plant killer than winter?

- Ping Ponging Temperatures
- Alternating heaving and thawing soils

Global Climate Change

More than simply getting warmer

Unfortunately We Cannot Ignore Several Centuries of Human Influence

We need to examine where we still have the indigenous landscape for the matching indigenous flora and fauna

Is the urban/suburban landscape a new ecosystem?

Let's Look at the Challenges of a “Native” Landscape for the Urban and Suburban Gardener

The natural world exists as an intricate and complex system of balance

The Prairie Home Landscape Failure

The Monarch Frenzy

Remember the “Garden” part of Prairie Garden (and rain garden and meadow garden and...)

More on Human Influence: The Urban Forest

- **What is more sustainable in the future landscape?**
 - *Ginkgo biloba* 'Fairmont' Maidenhair Tree or *Fraxinus pennsylvanica* Green Ash
 - **Which is more likely to live 200 years now?**
 - *Quercus macrocarpa* Burr Oak or *Fagus sylvatica* 'Zlatia' European Beech

There's pretty much no doubt in most professionals minds that these are the next two species due for future “attack” (the 5% rule – *Genus* NOT *species*!)

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Not all “Natives” are Created Equal. Which would you rather have?

Acer negundo Boxelder OR *Magnolia* 'Pristine' (native to the US but not Midwest)

Examine all sides of an issue

So is “sustainable” in plant materials simply “the right plant in the right place”? Isn’t this key to any regional gardening?

From Abelia to Yucca: A Midwest Plant Palette

Plants and “Hardiness”

- Some Zone 5 plants die in Zone 5!
- Some Zone 5 plants are short-lived perennials in Zone 5!
- Some plants survive year to year in Zone 5 but will never look the way they do in a geographically different Zone 5

New plants from outside area/country

Provenance: A further complication

The blueberry example

PROBLEM CHILDREN

From *Heuchera* King to *Heuchera* Antichrist....My Love-Hate Relationship

Know a plant’s background & breeding

Most common hybrid bloodlines

- *micrantha* (western North America from British Columbia to California)
- *sanguinea* (native to Arizona, New Mexico and Mexico)
- *villosa* (native to Appalachia. and the Northeastern, Southeastern, and parts of Central United States)
- Our native species:
- *richardsonii* (native to Central US prairies)
- *americana* (native to eastern U.S)

Culture

- High organic matter content, well drained, no clay
- Keep crowns low (frost heave) – winter protective cover
- Crowns rise: lift and reset every several years
- Detest high heat and humidity
- Rabbit damage
- Some leaf spots, powdery mildew, leaf and stem smut, stem rot, strawberry root weevil, mealybug, foliar nematode

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I'm not saying don't use it, just understand that it is a "high maintenance plant" & possibly short-lived perennial. Ideal culture improves its success.

Here they come! *H. richardsonii* hybrids

Matthew Bailey 'Paula Flynn'

Terra Nova Northern Exposure™ Series 'Amber', 'Lime' and 'Red'

A lesson learned about viewing plants in other locations

'Snow Angel'

***Gaillardia* as example of breeding changing hardiness**

- 'Arizona Sun'
- 'Amber Wheels'
- 'Tokajer'
- 'Fanfare'

Most are hybrids with the hybrid *Gaillardia x grandiflora* as one parent, *G. pulchella* as other

- ***aristata***: native to much of northern and western North America
- ***pulchella***: short-lived perennial or annual flowering plant native to the Central United States

***Echinacea* Coneflowers**

Breeding...

One would think that the simple answer here is that using non-indigenous species makes for less hardy hybrids, like the *Coreopsis*

It plays into it, but not completely the way you think

- *E. paradoxa* probably does diminish hardiness
- *E. tennesseensis* is in local gardens (Olbrich)
- *E. purpurea* needs vernalization to flower; southern species don't

They grow quickly and flower in first year; lack of vernalization makes them non-winter hardy; retailers push to flower in a single season for sales, not vernalized

Many of the hybrids are produced through tissue culture; tends to produce single stem plants instead of multiples; research has shown weaker plant

Recommendation: Buy plants with heavy stemming; cut flowers off first year

Out of the mix: Some good, some disappoint

- 'Harvest Moon'
- 'Pica Bella' (*CBG)
- 'Coconut Lime' (*CBG)

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- 'Pixie Meadowbrite' (*CBG)

And now aster yellows...

Tim Woods: Spring Meadow Nursery

Why Madonna Loathes Hydrangeas

On the Good Do'ers ("Common" Plants)

Explore lesser known tough plants

Lyon-Hart as Example

It may appear exotically ornamental but the foundation plantings are established "good do'ers".

Constant attention to culture allows sustains the "fussier" plants.

Good plants come out of strong breeding and plant evaluation programs

- The "hardest" plants come out of solid trialing programs.
- The best programs utilize regional evaluations.

Acer pseudosieboldianum x palmatum 'Hasselkus' Northern Glow™ Maple