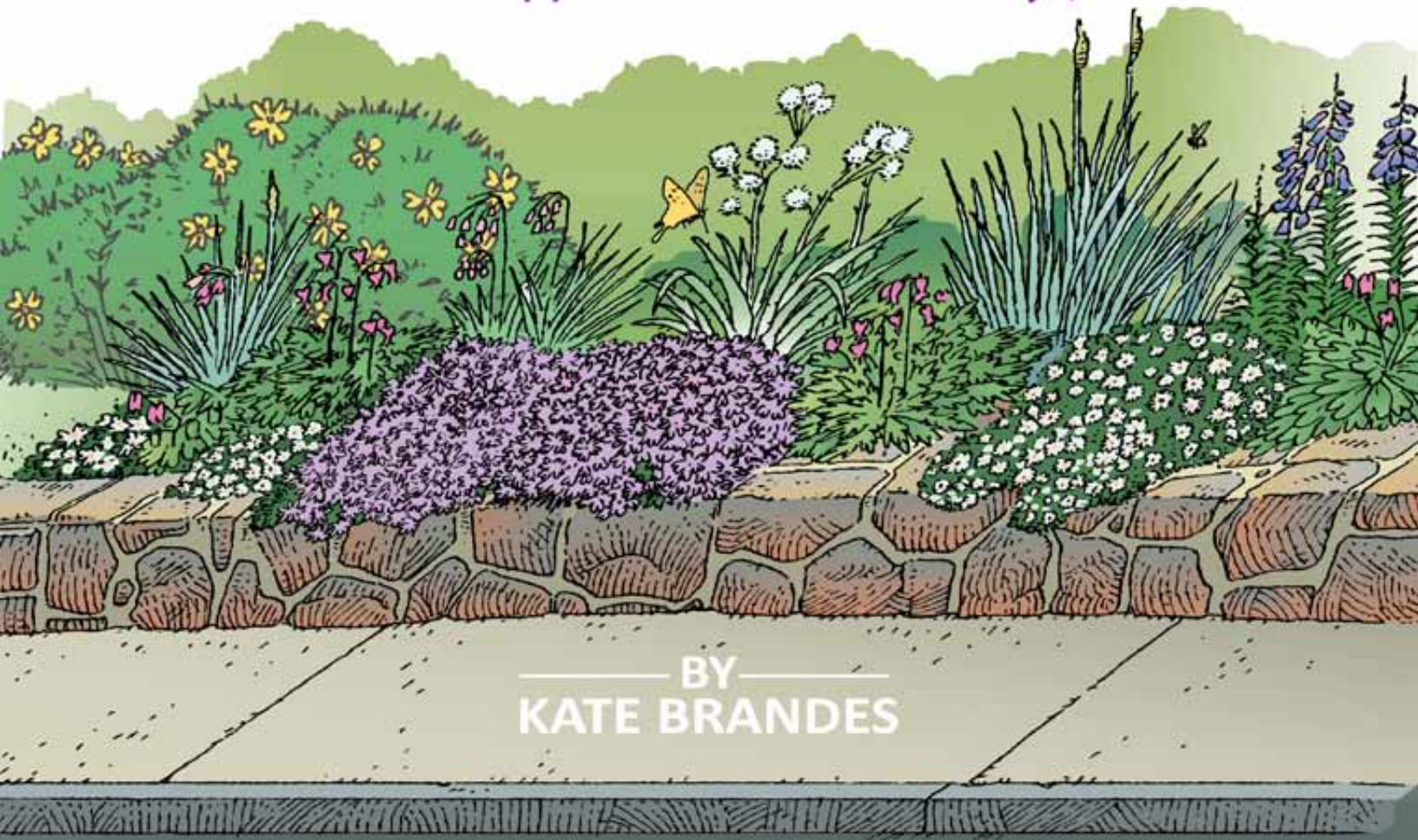
NATIVE PLANTS FOR THE SMALL YARD

Easy, Beautiful Home Gardens that Support Local Ecology



BY
KATE BRANDES

Lehigh Gap Nature Center's Landscaping for Communities and Wildlife Program

NATIVE PLANTS FOR THE SMALL YARD:

Easy, Beautiful Home Gardens that Support Local Ecology

by Kate Brandes

Landscaping *for* Communities *and* Wildlife

LGNC's Landscaping for Communities and Wildlife Program was generously funded by the Lehigh Valley Community Foundation. This project was also completed in partnership with the Lehigh Valley Greenways Conservation Landscape. Funding was provided in part by a grant from the Pennsylvania Department of Conservation and Natural Resources, Bureau of Recreation and Conservation, Environmental Stewardship Fund, administered by Delaware & Lehigh National Heritage Corridor.

Special thanks to the Program's Steering Committee:

Kristie Fach	Wildlands Conservancy
Lauren Forster	Jacobsburg Environmental Education Center
Erin Frederick	Penn State Extension
Caitlin Heffner	Lehigh County Conservation District
Kimberly Heiman	Muhlenberg College
Diane Husic	Moravian College
Dan Kunkle	Lehigh Gap Nature Center
Robert Neitz	Jacobsburg Environmental Education Center
Nathan Pritchard	Northampton County Conservation District
Pamela Ruch	Nurture Nature Center
Claire Sadler	The Delaware & Lehigh National Heritage Corridor

Illustrations by Tom Maxfield. Layout by Maxfield Design.
Unless otherwise credited, photos are licensed through Shutterstock.

FORWARD

Why This Book?

Social scientists have looked at how people feel about their yards. Research shows that people's preferences are determined mostly by the desire to fit in with their neighbors.

Native plants have developed something of a bad rap among many homeowners as messy and hard to manage plants that do not fit in with the neighborhood. But there are many beautiful native plants that not only fit well into a residential yard, but also provide multiple benefits. This book features ideas and recommendations for these native plants that will work well in a flower garden or home landscaping project, especially for the resident with the small yard.

The use of native plants at home is a feature of this book because these plants are known for their ecological benefits (see page 3) but they are also a valuable resource for many other reasons, including:

- **Less need for herbicides and pesticides** — resulting in a healthier yard for your family and pets. Native plants co-exist with nature rather than competing against it, so they're often easier to maintain than nonnative species.
- **Reduction of storm water runoff and increased rainwater absorption –** wet-loving plants can dramatically increase water infiltration on your property. This also helps improve water quality in your community.
- **Beauty made easy** – native plants have a more subtle color pallet that mimics nature, so they look naturally beautiful and unified to our eye when grouped together. Choosing a wide assortment of plants also ensures seasonal interest, with the bonus of attracting colorful birds and butterflies.
- **Keeping it local** – many people support the local food movement. Native plants are a keystone species for growing local food since so many pollinators depend on native plants to survive.
- **Sense of place** – Nature, which inherently includes native plants, gives people a sense of place. These plants are tied to the landscape and culture of our local area.


Brandes, K.

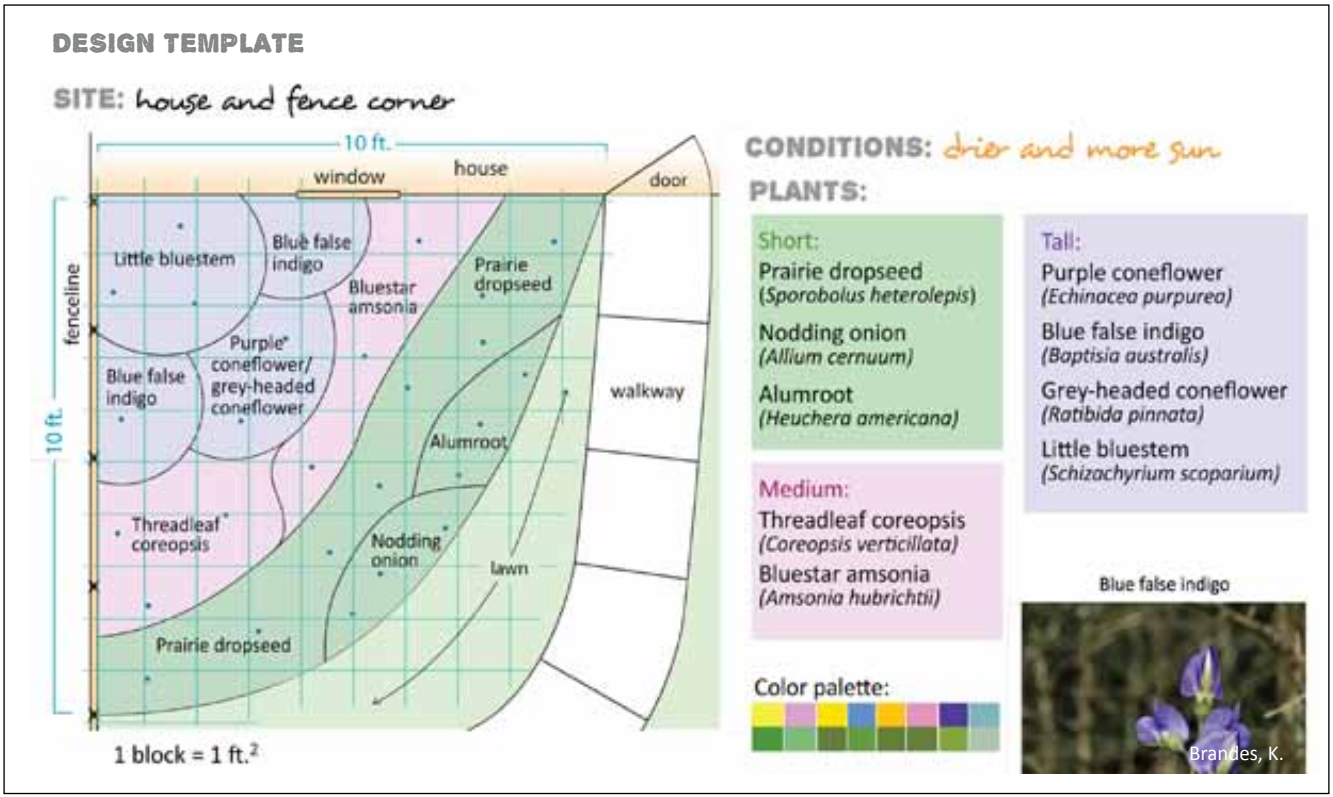
What Will You Find Here?

This book includes:

- A description of the connection between native plants and local ecology;
- Guidance on flower garden designs for your yard, including nine different design templates you can use and/or modify as you wish;
- Advice on installing and maintaining a flower garden; and
- Information on the best native plants for small spaces, as well as visual guides for common yard weeds and invasive plants.

Use this book if you're interested in beautiful gardens that are easy to manage and beneficial to the health and well being of your family, community, and local environment.


Brandes, K.



Why Natives Are Important in a Yard:

THE ECOLOGICAL CONNECTION


Brandes, D.

Pollinators depend on native plants!

At least one third of the world's food supply is dependent on pollinators. Aside from the well-known honeybee there are thousands of species of native bees, wasps, moths, butterflies and other insects in North America that are important for pollination of our food. These native pollinators depend on native plant species for survival.

Doug Tallamy, a professor of entomology and wildlife ecology at the University of Delaware, has studied the role of native plants extensively. His findings show that native plants support local insects that also serve as the basis of our food chain. Non-native plants are not part of this food chain. For example, Dr. Tallamy has determined that most species of native caterpillars rely on native plants. In keeping with the idea of a food chain, many birds then rely on those caterpillars. In fact, Dr. Tallamy and his students have recorded the number of caterpillars needed to feed a clutch of chickadee hatchlings. One nest of baby birds requires 350 to 570 caterpillars every day, depending on how many chicks there are. So, an incredible 6,000 to 9,000 caterpillars are required to raise one clutch of chickadees[1] to adults. Almost all baby birds require insects like caterpillars to grow, even birds that mature into seed-eaters. As Dr. Tallamy explains, what we plant in our landscapes determines what can live in our landscapes.

A native plant occurs naturally in the place where it evolved. These plants have an evolutionary connection to our area and support healthy local ecosystems, strengthening the natural food chain where we live.


Brandes, D.

[1] Tallamy, Douglas W. *Bringing Nature Home: How Native Plants Sustain Wildlife in Our Gardens*. Timber Press, 2007.

DESIGNING A GARDEN

Your garden should suit your tastes and lifestyle. Here we offer some ideas you can take from and modify to whatever best serves you. When considering a new flower garden or adding to one you already have, here are a few things to keep in mind:

– Start small. You don't have to convert your whole yard to native plants. Instead try introducing native plants little bits at a time. It's more economical and this approach will let you get to know each plant well.

– Try a more informal garden, which requires less maintenance. By informal we mean more natural looking as compared to a formal Italian-style garden.

– Curved garden edges have an organic feel and are also easier to maintain than sharp edges.

– Keep things simple – especially in a small space. A mix of just a few plants or colors looks better than a lot of different things all at once.

– Plant a swath or mass of the same plant together. This is the way plants grow in nature and so this kind of planting looks right to our eye when we see it in a garden space.

– Include layers of plants, with varying heights, so that the ground is ideally covered with plants. This reduces or eliminates the need for the addition of mulch over time since the plants provide their own green mulch once they grow in. Weeds often establish on bare soil, so the idea is to cover the ground with the plants you want and crowd out the ones you don't. This kind of planting will also help the soil naturally retain moisture, and prevent erosion. If you let plants die back in place you'll also feed the soil.

Start small and keep it simple. Informal = less maintenance.

Container gardens are a good way to start small and to give you the opportunity to get to know each plant.


Brandes, K.

MAILBOX GARDEN

Dress up your mailbox with native perennials that will draw butterflies.

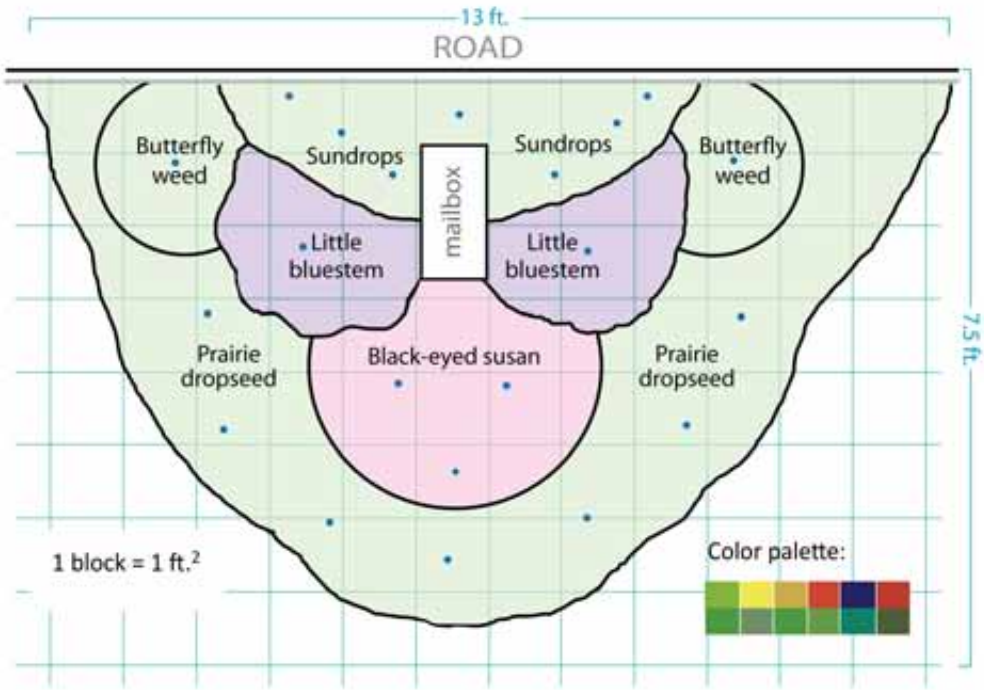
MAILBOX GARDEN

Helpful hints:

- Use plants that will tolerate and thrive in the conditions you have.
- Plant the big stuff first. Account for full size when planting and spacing. Then fill in with smaller plants.

SITE: roadside mailbox

CONDITIONS: drier and more sun



PLANTS:

Short:
- Sundrops *(Oenothera fruticosa)*
- Butterfly weed *(Asclepias tuberosa)*
- Prairie dropseed *(Sporobolus heterolepis)*

Medium:
- Black-eyed susan *(Rudbeckia fulgida)*

Tall:
- Little bluestem *(Schizachyrium scoparium)*

Sundrops

Prairie dropseed

Butterfly weed

Black-eyed susan

MAILBOX GARDEN

PLANT ALTERNATIVES:

drier and more shade

Short:
- Canada anemone *(Anemone canadensis)*
- Green and gold *(Chrysogonum virginianum)*
- Alumroot *(Heuchera americana)*

Medium:
- Golden Alexanders *(Zizia aurea)*

Tall:
- Sneezeweed *(Helenium autumnale)*

Golden Alexanders

wetter and more shade

Short:
- Maidenhair fern *(Adiantum pedatum)*
- Canada anemone *(Anemone canadensis)*
- Foam flower *(Tiarella cordifolia)*

Medium:
- Lady fern *(Athyrium filix-femina)*
- Royal fern *(Osmunda regalis)*
- Golden Alexanders *(Zizia aurea)*

Tall:
- Sneezeweed *(Helenium autumnale)*

Swallowtail Butterfly

wetter and more sun

Short:
- Canada anemone *(Anemone canadensis)*
- Pink Coreopsis *(Coreopsis rosea)*
- Wild geranium *(Geranium maculatum)*

Medium:
- Golden Alexanders *(Zizia aurea)*

Tall:
- Blazing Star *(Liatris spicata)*
- Garden Phlox *(Phlox paniculata)*

Purple Blazing Star

INSTALLING AND MAINTAINING THE GARDEN

If you're going to establish a new garden bed, you'll have to prep the area by removing the grass either by digging, tilling or smothering it. If you plan ahead, the easiest method is to begin in the early fall and lay down cardboard over the intended garden area, wet it, and cover that with a thick layer of leaf mulch and water again. By late spring you can plant into your new garden without doing anything more.

Once a garden bed is ready for planting (either one you've prepped or an existing one), the best times to plant are spring and fall.

It helps to place the larger plant material first (shrubs, grasses, big perennials). Leave enough space around them so that when they're fully grown they won't be crowded. Then fill in around the larger plant material with smaller plants.

Weeding is required even in the most well designed garden spaces. The key is to do a little, often. That way it doesn't get ahead of you. Once gardens are established, less weeding is needed. To help with identification, pictures of some of the common yard weeds are shown in Appendix A.

You might find some native plants at your local nursery. Purple coneflower and black-eyed susans are two of the most commonly available native perennials. You can also find native shrubs and trees. But there are many natives to choose from and in order to have the full selection available to you, visit a local nursery that specializes in these plants. For information on where to find these nurseries see the resource section on page 49.


Brandes, K.


Brandes, K.


Brandes, K.


Brandes, D.


Brandes, D.

APPENDICES AND TABLES

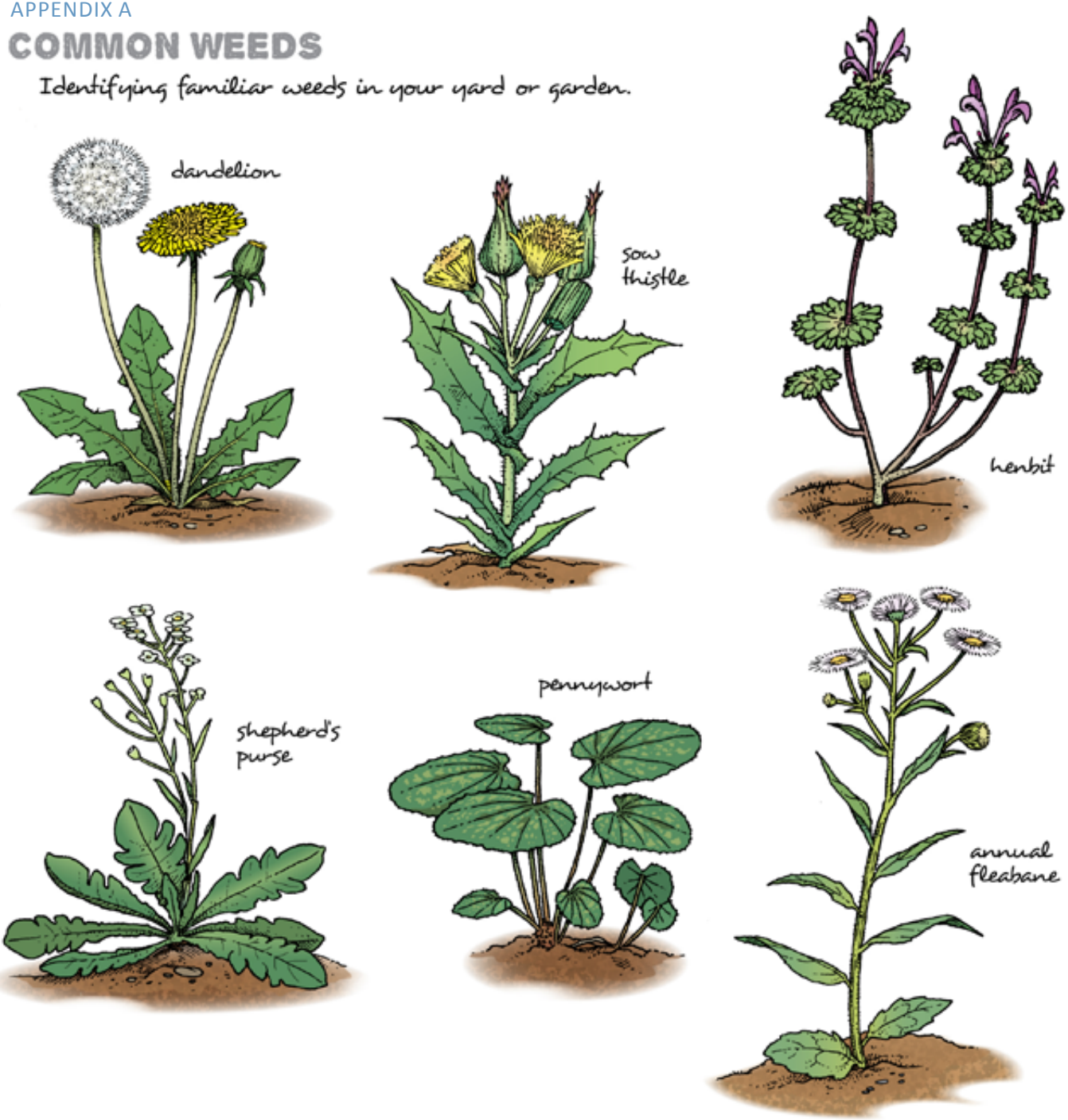
A. Common Weeds	34
B. Common Invasives	37
Native Plants (Table 1)	41
Native Trees (Table 2)	48
Resources	49


Brandes, K.

APPENDIX A

COMMON WEEDS

Identifying familiar weeds in your yard or garden.



INVASIVES

Identifying Common Invasive Plants that might be found in your yard or garden.

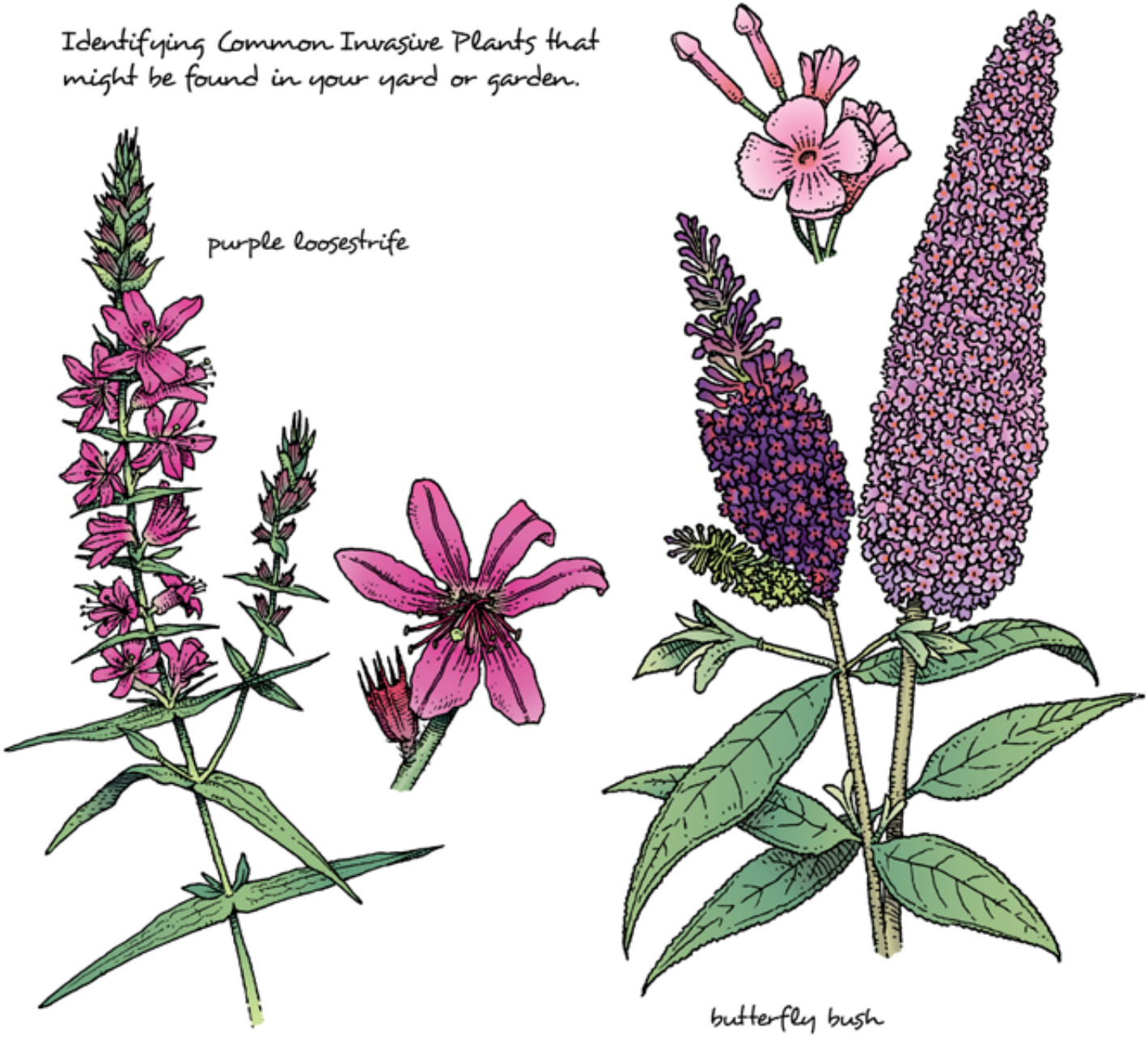


TABLE 1

NATIVE PLANT TABLE

Native Plants to Consider for Smaller Spaces

This isn't an exhaustive list of all native plants, or the only ones that could do well in a small yard, but these are most of the native plants that will work in a typical residential landscape. This list gives you options for each of the template designs and/or any design you might be doing yourself. We've listed each plant in terms of height and growing conditions. Shrubs, vines, grasses and perennials are included. We have not listed trees here, but Table 2 (page 48) provides a list of small native trees to consider if you have a small yard.

Scientific Name	Common Name	Approx. Height	Light	Moisture	Bloom Time	Approx. Width	Plant Use in Design	Color	Tolerant of:
Sun to Part Shade - Dry to medium Soil									
SHRUBS:									
Ceanothus americanus	New Jersey Tea	2-4 Ft	Sun to Part Shade	Dry to Medium	spring/sum	3-5 Ft	small shrub	white	drought, dry or, shallow-rocky soil
Comptonia peregrina	Sweet-Fern	2-4 Ft	Sun to Part Shade	Dry	NA	4-6 Ft	small shrub (does not trans-plant well once established; does well in poor soils)	NA	drought
Diervilla lonicera	Bush Honeysuckle	2-4 Ft	Sun to Part Shade	Dry to Medium	summer	2-4 Ft	small shrub	yellow	pruning
Hydrangea quercifolia	Oakleaf Hydrangea	6-8 Ft	Sun to Part Shade	Medium	spring/sum	6-8 Ft	shrub border, specimen shrub (winter interest; fall color)	white changing purplish pink	
Juniperus horizontalis	Creeping Juniper	0.5 Ft	Sun	Dry to Medium	NA	8-10 Ft	ground cover, rock gardens, retaining walls, mass on slopes (erosion control)	NA	deer, drought, dry soil, erosion shallow-rocky soil
Myrica pensylvanica	Bayberry	5-10 Ft	Sun to Part Shade	Dry to Medium	NA	5-10 Ft	shrub border (need one male plant to pollinate)	NA	drought, salt, wide range of soil moisture
Physocarpus opulifolius	Ninebark	5-8 Ft	Sun to Shade	Wet to Dry	spring	4-8 Ft	effective as hedge or screen, backdrop shrub (all season interest)	white/ pink	drought, erosion, clay soil, dry soil, shallow-rocky soil
Rhododendron atlanticum	Dwarf Azalea	2-6 Ft	Part Shade	Dry	spring	2-5 Ft	small shrub, patio specimen (best in acidic soils)	white	
Spiraea betulifolia	White Spirea	2-3 Ft	Sun	Medium	spring/sum	2-3 Ft	low hedge, specimen shrub	white	deer, wide range of soils
Viburnum acerifolium	Mapleleaf Viburnum	3-6 Ft	Sun to Shade	Dry to Medium	spring	2-4 Ft	shrub border, hedge	white	black walnut
Viburnum dentatum	Arrowwood Viburnum	6-10 Ft	Sun to Shade	Medium	spring	6-10 Ft	shrub borders, tall hedge or screen, backdrop	white	clay soil, black walnut

TABLE 2

TEN SMALL NATIVE TREES *ideal for the yard*

1. Red bud (*Cercis canadensis*)
2. Alternate dogwood *(Swida alternifolia*)
3. Sweetbay magnolia (*Magnolia virginiana*)
4. Smooth Blackhaw *(Viburnum prunifolium)*
5. Flowering dogwood (*Cornus florida*)
6. Buttonbush (*Cephalanthus occidentalis*)
7. Eastern red cedar (*Juniperus virginiana*)
8. Serviceberry (*Amelanchier canadensis*)
9. American witch hazel (*Hamamelis virginiana)*
10. Bottlebrush buckeye (*Aesculus parviflora*)

Sweetbay magnolia

Eastern red cedar

American witch hazel

Buttonbush

Bransford

Red bud