

Planting Design for New Landscapes or Renovation Projects



Mississippi Smart Landscapes

Mississippi State University Extension Service





Smart Landscapes:

Require less money and energy to maintain

Less impact on the surrounding environment

Increase your neighborhood biodiversity and support area wildlife



Benefits of a Sustainable Landscape Design

DESIGN GUIDELINES FOR CREATING "SMART LANDSCAPES"

Home Landscape Design

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A well-designed and functional home landscape can add to your family's joy and increase the value of your property. Modern landscapes are meant to be beautiful and useful. A wellplanned landscape provides your family with recreation, privacy, and pleasure. Conscientious homeowners know that the



Figure 1. Front landscape. Drawing by Richard Martin III

BEGIN WITH A PLAN!

Guides you through the steps to take in your design project whether a new landscape or a renovation of an existing one.

Extension Publication No. 2698



Extension Publications: http://extension.msstate.edu/

There are 7 basic steps to creating a landscape plan (see Pub. #2698)

CREATE A BASE PLAN:

Locate house (and floor plan) Decks, patios, A/C units Driplines, walls, fences, utility boxes Utility easements & R.O.W.'s Property line, existing vegetation

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Step One: Develop a base plan

For new construction projects, the plan may be very simplified.

A renovation is usually more complex as it will contain more existing site features - buildings, structures, vegetation, etc.

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Step One – Creating a base plan

Analysis: Features that need to be preserved or improved

Existing plants Sun/shade/soils Wind direction Challenges/attributes

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Shade trees Views (good/bad) Drainage Plant/lawn health

Structural improvementsto fences, walks etc.Views (Curb appeal) into and out of the site



Step Two: Conduct a Site Analysis

Needs/Wants

Areas for entertaining Pets, recreation, cooking Storage areas Theme gardens: butterflies, pollinators, roses, herbs Water features, paths



Step Three: What are your needs and desires?





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Step Four & Five: Locate & develop use areas



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•See publication

•Practice drawing symbols

•Use color to highlight specific plants





Step Six: Select and add plant symbols to plan

•Advise client on need for adequate care for plant establishment (watering)

•Advise client on proper maintenance techniques (i.e. avoid Crape Murder, add mulch rings for trees in lawn)

•Plan for low maintenance (consider mature plant size)

•Don't locate plants too close to buildings

•Retain/protect ex. trees

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PRIORITIZE THE IMPLEMENTATION



Figure 33. Complete landscape plan. Drawing by Richard Martin III

Step Seven: Complete and plan for implementation



BLANK SLATE: Define beds vs. turf areas

PHASING

Front vs. back



Front areas usually have the higher priority



BLANK SLATE





Edger creates visually pleasing curvilinear beds





New construction: Planning for future planting



'Natchez' Crape Myrtle and Cleyera japonica

Plant in several phases: Trees, shrubs, groundcovers





EXTENSIVE SITE PERIMETERS: Plant in phases



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BLANK SLATE: Installing turf areas following construction





Field measuring to confirm beds are the width on plan





New construction: Implementing the Plan



Brick-edged beds have a strong visual impact

Plants may be installed yearround.

But remember you will need to monitor water!

Monitor water in first year of establishment

COMPACTED SOILS? Many native plants are ok with that!

New construction: Issues for Landscaping

Sweetbay Magnolia

Rudbeckia

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Natives for compacted sites/soils

Smart LANDSCAPES

Native species for new construction sites

Native Trees for Mississippi Landscapes

The use of indigenous trees in homes, gardens, and communities is not new to Mississippi. Indigenous trees form the very fabric of our surroundings and create our state's own unique regional identity. Even noted Mississippi authors Eudora Welty and William Faulkner recognized the importance of Mississippi's native flora and landscapes to help create a sense of place in their writings.

Selecting native trees for the home landscape is a wise choice. In addition to their beauty, there are several additional reasons to use Mississippi's native trees.

- Native trees are better adapted to Mississippi's soils. Mississippi's predominantly acidic mineral soils make it difficult for many ornamental trees from other areas to perform well. Native trees are better adapted to our varying soil types.
- Native trees are better adapted to Mississippi's climate. Local trees are better suited to the average temperature and rainfall patterns found in our state.

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access to irrigation and care. Trees that are tolerant of these growing conditions are the best choice.

The following list describes 40 tree species native to Mississippi, all of which have performed well in a variety of urban landscapes. These plants were chosen for their durability, ornamental qualities, wildlife value, and tolerance to a wide spectrum of soil, moisture, and sun exposure. Many are familiar features of Southern landscapes; others are not as common but deserve greater consideration for ornamental use. Each tree species description includes:

- 1. Native habitats
- 2. Associate plant species
- 3. Flowering, fruit, leaf, and form characteristics
- 4. Wildlife values
- 5. Cultural tips
- 6. Effective landscape uses

Most trees, when appropriately sited, can be planted directly into the native soil without amendments.

Publication No. 2330

Extension Publications: http://extension.msstate.edu/

<u>Shade trees</u> reduce energy usage.

<u>Evergreen trees</u> north and west of your house block winter winds.

<u>Deciduous trees</u> shade in summer. In winter, allow sun to warm home.

SWAMP CHESTNUT OAK – (Quercus michauxii) deciduous; native to Mississippi

TREES increase your home's energy efficiency

Planting a tree is a small act with a big pay-off. Shade also reduces watering & weeding needs.

Plan to include trees to create more shade

Wet or Dry Sites: Red Maple

Wet or Dry Sites: Wax Myrtle (Morella cerifera)

Taxodium distichum

Wet or Dry Sites: Bald Cypress

Magnolia virginiana 'Jim Money' AKA 'Moonglow'

Wet or Dry Sites: Sweet Bay Magnolia

Chionanthus virginicus

Tough & Attractive Native Trees: Grancy Graybeard

Wet or Dry Sites: Swamp Chestnut Oak

AMERICAN HOLLY

DAHOON HOLLY 'Perdido'

SAVANNAH HOLLY

Hollies – tough evergreens, great for hedges

Deciduous Hollies – winter interest / wildlife

RENOVATIONS!!

Identify site conditions and existing plants, i.e., declining or high-maintenance plants, hazard trees, invasive species, weeds, health: Insect pests and diseases

RENOVATING EXISTING LANDSCAPES

ADDRESSING (DRAINAGE) ISSUES

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Adding underground drainage can be costly

RENOVATIONS Removing thinning sod

Converting "unthrifty" lawn areas to groundcover beds

Remove & replace high-maintenance plants

Consider Eliminating Lawn to Reduce Maintenance

Consider mulched areas rather than sodding.

Mulching helps contain soil moisture

Where can you reduce your existing turf?

Tip: Group individual plants into beds

Tip: Reduce turf areas with new island beds.

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Continuous perimeter beds help to simplify maintenance.

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Protects from string trimmers and mowers.

Allows for more water to reach the tree roots.

Choose plant material that suits your property

Install plants in late fall & winter to allow for optimum plant establishment.

Tip: Plant during the dormant season.

Tip: Give plants adequate room to grow

Native Shrubs for Mississippi Landscapes

There are 30 shrub species native to Mississippi that can be successfully used in home landscapes. The following descriptions of each species include:

- Native habitats
- Flowering, fruit, leaf, and form characteristics
- Wildlife values

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Each listing also contains cultural tips and effective landscape uses. While many of these plants tolerate conditions not found in their native environments, it is always preferable to choose plants that are best suited to the site. Wholesale nurseries in your area may produce some of these plants; ask the manager about availability.

Red Buckeye Aesculus pavia L. Family: Hippocastanaceae

yellow in the fall. For a natural look, plant the buckeye in shrub masses underneath trees that form a canopy.

Sunlight: Part sun to shade Soil type: Dry to moist Shrub type: Deciduous Wildlife value: Medium Flowering: Spring flowers

Tag Alder Alnus serrulata (Ait.) Willd. Family: Betulaceae

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Tough & Useful Native Shrubs: Elliot's Blueberry

Viburnum dentatum

Tough & Attractive Native Shrubs: Arrow-wood Viburnum

Callicarpa americana

Dry sites: American Beautyberry

OAKLEAF HYDRANGEA Hydrangea quercifolia

Rich, moist, well-drained alkaline soils, sun/shade

VIRIGINIA SWEETSPIRE Itea virginica

Adapts to many soil, sun, & moisture conditions

Wildflowers for Mississippi Meadows and Gardens

Those uncultivated flowers found growing naturally along roadsides, in meadows and fields, and in forests throughout an area are called wildflowers. Wildflowers include a wide variety of plant types, including reseeding flowering annuals and hardy perennials, selected vines and small shrubs, ferns, and even showy native grasses. Many are well-suited for use in home gardens and landscapes because they are adapted to the general climate and soils of an area. With a little planning, you can easily plant and enjoy them for years.

Some wildflowers are perfectly useful in formal plantings and gardens where neatness is important; however, most are better suited for use in informal, meadow-

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or as true perennials from bulbs, corms, roots, stems, or rhizomes.

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There are no "maintenance-free" gardens. Because wildflowers have a natural ability to spread vigorously, many may become rampant invaders requiring some control. Many weedy, less desirable plants also appear in wildflower gardens and require removal, making even wildflowers "low-maintenance" at best. Winter mowing of wildflower meadows, regular pruning of faded foliage and dead seed stalks, careful use of selected herbicides, and other general gardening techniques are necessary to ensure success and enjoyment from the use of wildflowers in the landscape.

Site Selection

Suggest with wildflowers demands mostly

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Tough & Attractive Natives: Black-eyed Susan

Tough & Attractive Natives: Gaura, Stokesia

Wet or Dry Sites: Stokes Aster

Mother bed of milkweed (Asclepias incarnata) at Crosby Arboretum Pollinator Garden

Wet or Dry Sites: Swamp Milkweed

Work with natural ecological processes

Swamp Milkweed (Asclepias incarnata)

Plants in The Crosby Arboretum Pollinator Garden

SUMMER

Scarlet Sage (Salvia coccinea)

Fire Bush (Hamelia patens)

What plants do you see thriving each season?

Tip: Establish solid beds of vegetation

Tough native vines for quick vertical coverage

Host plant for Gulf Fritillary Caterpillars

Passiflora incarnata

Tough & Attractive Natives: Passion Vine

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Locate your garden where you can enjoy from inside.

Follow the 7 basic steps to creating a landscape plan and:

- Get to know your plants
- Locate them properly
- Give them room to grow
- Group according to needs

(Light, moisture, soils)

Get to know the plants you wish to use.

Consider using more native species in your landscapes

Well-adapted to local environmental conditions.

When located in the site conditions they prefer, require far less water and chemicals to support.

Save labor, money, and water.

Liatris spicata

Native Plants: Durable and Functional

The mission of this public garden is to preserve, protect, and display the plants native to the Pearl River Drainage Basin of MS and LA in their natural communities.

Pearl River Drainage Basin

Mississippi State University's Crosby Arboretum is located in Picayune, MS (Pearl River Co.)

The Crosby Arboretum

MISSISSIPPI STATE Native Trees for **Mississippi Landscapes**

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wise choice. In addition to their beauty, there are several additional reasons to use Mississippi's native trees. · Native trees are better adapted to Mississippi's soils

- Mississippi's predominantly acidic mineral soils make it difficult for many ornamental trees from other areas to perform well. Native trees are better adapted to our varying soil types. Native trees are better adapted to Mississippi's
- climate. Local trees are better suited to the average temperature and rainfall patterns found in our state. Weather patierns arising from the Gulf of Mexico bring occasional floods, droughts, freezes, heat waves,

and even strong winds that many native trees can

access to irrigation and care. Trees that are tolerant of these growing conditions are the best choice.

The following list describes 40 tree species native to Mississippi, all of which have performed well in a variety of urban landscapes. These plants were chosen for their durability, ornamental qualities, wildlife value, and tolerance to a wide spectrum of soil, moisture, and sun exposure. Many are familiar features of Southern landscapes; others are not as common but deserve greater consideration for ornamental use. Each tree species description includes: Native habitats

Associate plant species Flowering, fruit, leaf, and form characteristics Wildlife values

Effective landscape uses

While many of these plants tolerate conditions not found in their native environment, it is always preferable to choose the plants that are best suited to the site.

Establishing a Backyard Wildlife Habitat

"Nature, in her blind search for life, has filled every possible cranny of the earth with some sort of fantastic creature." Joseph Wood Krutch (1893-1970). American critic and naturalist

reating a landscape to attract wildlife is a goal of many homeowners. As natural areas for wildlife have decreased because of urbanization, more and more homeowners are realizing there is more to a landscape than a sterile arrangement of plants. It can and should be a vibrant mix of elements in which animals, plants, and humans happily coexist

Many people envision gaily colored butterflies and birds feeding and flitting about the yard. That is the more visible aspect of a backyard habitat. Striving for biodiversity in

needs will attract wildlife to your backyard habitat. It takes only a small investment of time to make your yard or garden "wildlife friendly" by adding these essentials.

Food You can provide food in two ways: 1. Artificial feeding-bird feeders, squirrel feeders, and

 Natural vegetation — planting a variety of native trees, shrubs, grasses, and flowering plants that provide nuts, seeds, nectar, fruit, and other sources of nourishment

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shrub masses underneath trees that form a canopy

Sunlight: Part sun to shade

Soil type: Dry to moist

Shrub type: Deciduous

Wildlife value: Medium

Family: Betulaceae

Tag Alder

Flowering: Spring flowers

Alnus serrulata (Ait.) Willd.

Selecting Landscape Shrubs

With Special Comments on nvasive and Native Plants

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accept the property links, Low-growing shrutes are used to edge the landscape bods in front of the garage. The two shrutes at the entrance of the driveway provide an accent for this area. Strutes also are used to provide a haven to attract widdlite to the brite bath to the statut of the home.

the right of the home

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For more Smart Landscapes info and media, be sure to visit:

1. Mississippi Smart Landscapes website: http://extension.msstate.edu/smartlandscapes

2. Our Facebook page at https://www.facebook.com/smartlandscapesmsu/

Mississippi Smart Landscapes media

Contact the MSU-ES Smart Landscapes Team:

Dr. Eddie Smith

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Extension Agent III Email: eddie.smith@msstate.edu MSU Extension- Pearl River County

Patricia Drackett Asst Prof & Director, Crosby Arboretum Email: pat.drackett@msstate.edu Crosby Arboretum, Picayune, MS

Bob Brzuszek Professor Email: rfb7@msstate.edu Landscape Architecture

Smart Landscapes, MSU Extension Service