

# Chapter 16

## LANDSCAPING

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<b>I. Introduction</b>	<b>2</b>
<b>II. Definitions</b>	<b>2</b>
<b>III. Creating a Plan</b>	<b>2</b>
A. Define Your Goals and Objectives	2
B. Do a Thorough Site Analysis	3
C. Define Use Areas	4
D. Define Planting Areas	5
E. Principles of Design	5
F. Elements of Design	6
G. Plant Selection	6
H. Other Considerations When Buying Plants	7
<b>IV. Installation and Renovation</b>	<b>7</b>
A. Primary Hardscape	7
B. Install Planting Beds	7
C. Plant or Move Trees and Shrubs	7
D. Install Automatic Irrigation System	7
E. Plant Lawn or Ground Covers	7
<b>V. Maintenance and Irrigation</b>	<b>7</b>
A. Maintenance	7
B. Water Management	8
<b>Further Reading</b>	<b>8</b>

# Chapter 16

## Landscaping

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### I. Introduction

Horticulture is an art and a science—especially when it comes to landscaping. Imagine the landscape as the canvas with the greenscape (plants) and hardscape (sidewalks, edging, and patios) providing the colors, shapes, and patterns of the living portrait. Landscape architects even use the term “plant palette” when referring to plant lists.

The skill to match the proper plant to the proper environment and to provide the proper cultural inputs to guarantee the survival of plants on the landscape is the science of landscaping. In addition to being more attractive and easier to maintain, the benefits of a well-planned, well-designed landscape include economic savings (reduced inputs of water, fertilizer, and pesticides), enhanced real estate values, and personal satisfaction and peace of mind.

To help you create an attractive and functional landscape, we will discuss some basic principles of landscaping including planning and design, plant selection, and installation and maintenance. Although the following principles are primarily for homeowners, you also can apply them to larger properties or landscapes.

### II. Definitions

- A. Landscape—An arrangement of outdoor space for a specific purpose or goal. Goals may be as general as increasing the attractiveness of a landscape to more specific things such as reducing the amount of water, maintenance, and chemical inputs into the landscape.
- B. Landscape Design—A blueprint or drawing of the landscape that the designer creates to fulfill the property owner’s goals and objectives for the landscape.

- C. Landscape Architect—A professional who creates landscape designs.
- D. Landscape Plan—Describes how you are going to meet the goals and expectations of the landscape design.
- E. Landscape Maintenance—The specific activities (weeding, spraying, watering, fertilizing, etc.) needed to meet the goals and objectives of the landscape plan.
- F. Landscape Management—Coordinating the maintenance procedures to meet the landscape plan’s objectives .
- G. Landscape Contractor—Someone who installs and sometimes maintains landscapes. This individual also may be the landscape manager who is responsible for meeting the landscape plan’s objectives.
- H. Landscaping—Includes all of the concepts from design to maintenance.

### III. Creating a Plan

Have a plan before you plant! Whether you are developing a landscape plan for a new home or renovating an older landscape, it is important to have a plan before you do anything. In the long run, not having a plan may create maintenance problems and reduce the overall appearance of the landscape. The following steps will help you develop a plan for a landscape that is both functional and aesthetically pleasing.

#### A. Define Your Goals and Objectives

This is the most important step of the landscape process. Establishing clear goals and objectives at the beginning will help you achieve the benefits you hope to receive from your landscape plan.

Decide what type of plan best fits the needs of your household, while working within the

economic, social, environmental, and physical constraints that will affect your final landscape plan. Specific goals and constraints might include the following:

1. Goals
  - a. Low maintenance, low input (includes reduced watering, pesticide and fertilizer applications, and less mowing).
  - b. More privacy.
  - c. More recreation area.
  - d. More color.
  - e. More wildlife habitat (includes forage and cover for birds and desirable insects).
2. Constraints
  - a. Environmental conditions (includes climate, soil, and precipitation).

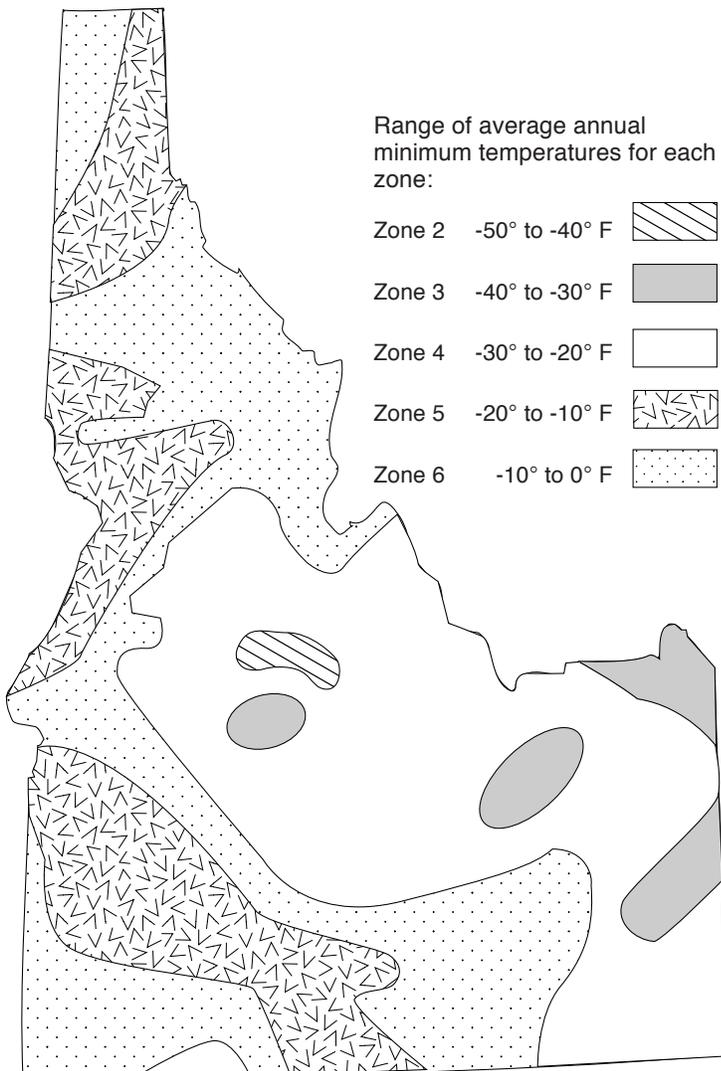
- b. Physical barriers or obstacles on the landscape.
- c. Social (includes public ordinances restricting water use or plant selection).
- d. Economic.
- e. Physical handicaps.

## B. Do a Thorough Site Analysis

Gather as much information as possible about your site and the area where you live. Make a preliminary map of your property, drawn to scale, that includes the locations of your house, buildings, sidewalks, and driveway. Indicate on the map, or on a separate sheet of paper, the following information:

1. Macroclimate—This refers to major weather patterns (temperature and precipitation) that affect large areas. In Idaho, cold hardiness is a critical factor for determining plant survival. Idaho covers five USDA hardiness zones, 2 to 6, (-50° to -10°F), with temperatures being affected by elevation and latitude (Fig. 1). Temperature and precipitation can vary considerably within a hardiness zone. Always consult local or regional weather services or extension publications for specific weather information for your area.
2. Microclimates—These are the weather patterns that the landscape in your immediate area affects. When conducting a site analysis, look for potential problem areas such as hot spots, frost pockets, wet spots, or shaded areas. Mark these microclimates on your preliminary map for future reference.
3. Soils—See Chapter 4 for more information about soils. In regard to urban or residential landscapes, consider the following:
  - a. Most urban or residential soils are disturbed soils and probably won't resemble the less disturbed, native soils of the surrounding region.
  - b. Proper soil conditions are as important to plant growth and survival as ideal climate conditions. Drainage, pH, structure, organic matter, and mineral composition are factors to consider in relation to plant growth.

**Fig. 1. USDA plant hardiness zones for Idaho.**



- c. Because you are working with a small area, it is easier to improve the soil using various soil amendments.

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**Note:** If your site has a lot of variability in the soil, you should indicate the different areas on your preliminary map and plan accordingly. See the UI Extension Bulletin 704, “Soil Sampling,” for information about taking soil samples on your site.

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4. Topography—Besides altering the microclimate, topography can affect drainage and make some areas difficult to plant and maintain.
5. Aspect—Note the exposure of the site relative to the sun. This is more critical in mountainous areas or areas with steep hills. Generally, plants growing on the warmer, south-facing side of a slope will break dormancy faster than plants growing on the north-facing side. This provides a longer growing season, but it also can make plants more susceptible to late frosts and other freezing-related injuries.
6. Existing plant materials and structures—Show existing plant materials, sidewalks, driveways, patios, and other structures on your preliminary plan.
7. Access—Besides driveways and sidewalks, plot “traffic” areas around the landscape. Consider ways to improve access to your home or other parts of the landscape.
8. Easements—Draw these on your map to prevent planting any permanent plant materials in these areas.
9. Overhead utility lines, sewer lines, underground cables, and transformers—Note these on your preliminary site plan and plan accordingly. Some basic rules for planting in these areas include:
  - a. Plant trees and shrubs away from utilities;
  - b. Plant taller or broad spreading trees away from overhead lines, and use shorter, slower growing trees for closer planting if you must plant near overhead utilities;

- c. Don’t plant species near utilities that can prevent access or cause maintenance problems; and
- d. Avoid planting species such as poplars, willows, and cottonwood with dense, fibrous roots near sewer lines or septic systems.

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**Note:** See the UI Extension CIS 991, “Landscaping and Utilities: Problems, Prevention, and Plant Selection,” for more information.

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10. Views—Indicate your views looking out from your house, and approaching your house. What do you want to see? What don’t you want to see? What do you want others to see or not see?
11. Available water—Show the location of your water sources. If your property has areas that are difficult to water, you may want to modify your plan to meet the needs of these areas by using drought-tolerant plants or hardscape (nonliving) materials.
12. Local ordinances—Consult state and local authorities for specific regulations about planting trees and shrubs along streets, sidewalks, and rights of way.

### C. Define Use Areas

You can divide use areas into three major categories:

1. Public areas—This usually describes the front of your landscape. The primary function of this area is aesthetics and to “welcome” visitors to your home.

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**Note:** There are no distinct boundaries on these areas, and they will frequently overlap in terms of function and appearance. Within these major use areas, you should designate specific use areas (e.g., recreation, perennial flower beds, vegetable garden, and patio) for the various activities that you are planning for your landscape. For more information about planning your landscape see CIS 990, “Water Conservation in the Landscape.”

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2. Private areas—These are the areas used for recreation, family activities, and entertaining.
3. Service areas—These areas are reserved for the vegetable garden, composting, pet and livestock areas, storage shed, woodpiles, and other utilitarian purposes. They can include areas that are difficult to maintain, have limited access to water, or have poor soil.

#### D. Define Planting Areas

Plot planting zones based on water needs or the plants' maintenance requirements and to meet the landscape plan's objectives.

1. Hydrozone or group plants with similar water needs in the same areas. For example, consider planting willows, dogwoods, or birches that usually thrive under moister conditions near annual flower beds (high water users). To conserve water, do not mix plants that have low water requirements with plants that have high water requirements.
2. Reduce maintenance activities by grouping plants with similar maintenance requirements together.
  - a. Perennials generally require less frequent maintenance than annuals. In Idaho, most of the maintenance of perennials occurs in the spring and fall.
  - b. Plant trees or shrubs with messy leaves, fruits, or seeds away from flower beds especially if these plants reproduce easily from seed. It is easier to rake this material up or remove the new seedlings from a lawn than from your planting beds.
  - c. Group shrubs with similar flowering periods together so it's easier to remember which plants you need to prune in early summer and which ones in the fall or early spring. Grouping also will help you focus maintenance activities on specific areas of your landscape.
3. Design planting areas to meet the objectives of your landscape plan. If your objective is privacy, design planting areas to maximize privacy. On the other hand, if you are concerned about security, you

may want to leave large areas of open space with reduced opportunities for concealment. Perhaps you would like to encourage more wildlife on your landscape? Then you will need to plan for more areas that provide both food and shelter. Plan and plot your objectives before starting to plant.

#### E. Principles of Design

The house is the focal point of the design. The landscape should complement, not clash, with the house. The landscape is an extension of the living space. Just like the appearance and arrangement of your house affects your personal living space, so does the appearance and arrangement of your landscape. It affects you aesthetically based upon your inward and outward views and from a functional perspective.

1. Balance—You can achieve balance on the landscape in two ways:
  - a. Symmetrically: Place equal numbers of plants, plants of equal size, or structures or planting beds of equal size opposite each other on the landscape. For example, plant two shrubs of the same size and species on opposite sides of an entryway or plant two flower beds of equal size, dimension, and species composition on opposite sides of a sidewalk.
  - b. Asymmetrically: Balance plants and structures in terms of volume of space occupied on the landscape. One example might be to plant a large red oak on one side of the yard to counterbalance a mass planting of ornamental shrubs on the opposite side. Also, you could counterbalance a deck with a perennial bed.
2. Movement—You can create a sense of vertical and horizontal movement on the landscape. For example:
  - a. Tall, columnar trees or shrubs draw your eyes upward, whereas a low, flat bed of colorful annuals pulls your eyes downward.
  - b. Lines, especially curved lines of walkways or planting beds, create a sense of motion that encourages you to move

visually and physically through the landscape.

3. Harmony—The proper use of space, color, texture, and plant materials on the landscape creates harmony.
  - a. Use plants and structures that are in scale with the house.
  - b. Enhance the overall landscape design with plants and plantings that complement each other.

#### F. Elements of Design

1. Space—Use space effectively by considering the following principles:
  - a. Select a mixture of plants that provide an effective transition from the vertical plane (air) to the horizontal plane (earth) to create a better sense of harmony and balance.
  - b. Plant trees that provide filtered shade (e.g., honey locusts) rather than trees that provide heavy shade (e.g., maples) for a more subtle influence on vertical space.
  - c. Select different species of plants based upon their form and structure as well as their color or flowering habits.
  - d. Use curved lines to create a more natural, informal appearance. Straight lines are less natural and more formal.
2. Color—Color affects the landscape design in various ways.
  - a. It gives the landscape movement, accent, shade, and depth. For example, bright colors such as reds and yellows are good for accent, variety, and for attracting attention to specific areas. Use blues and dark colors to create shade and depth.
  - b. Color affects moods. Reds are exciting colors that generate energy; pinks and greens are soothing colors; and light blues create a cool feeling.

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**Note:** A color wheel will help you make effective color choices. They are available at crafts, art, paint, or office supplies stores.

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3. Texture—Texture is the “visual feel” of the landscape or of landscape plants. Some plants have a coarse texture because of their foliage, branching patterns, or bark. For example, a horse chestnut tree with its large, serrated, compound leaves will have a coarser texture than a weeping willow.
4. Plant arrangement—The individual attributes of the plantings and overall effectiveness of the landscape plan is affected by plant arrangement.
  - a. Specimen plants draw attention to themselves because of their color, shape, or size. Plant them by themselves or enhance beds with mass plantings. Large shade trees (oaks, maples, and conifers) or small trees and shrubs (ornamental crabapples, hawthorns, burning bushes, and viburnums) make effective specimen plants.
  - b. Mass plantings enhance the appearance of plants that may not be as attractive or effective individually. Annuals, perennials, small shrubs, and ground covers are generally more effective as mass plantings. Also, on more naturalized landscapes, it is best to plant shrubs in odd numbered clusters for a more natural appearance.

#### G. Plant Selection

Select plants that meet your design objectives. These might include the following:

1. Functional.
2. Aesthetically pleasing.
3. Cold hardy—Check if the plant is adapted to the minimum temperature zone for your area.
4. Low maintenance—Select species that require a minimum amount of pruning, watering, and raking. Cut the frequency of maintenance time for woody plants by reducing the variety of early- and late-flowering species.
5. Low input—Select plants that require less water and chemical inputs.
6. Nonpoisonous and safe—This is especially important in areas that children will use. Try to reduce the number of plants

that may have poisonous fruits, flowers, or foliage or that have thorns or spines that can cause injuries.

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**Note:** Contact your local Extension educator or the Poison Control Center if you have any questions.

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7. Appropriate selections for planting near utilities.
8. Economical—What we want is not always what we can afford. Your budget will determine your choice and size of plant materials that you can purchase.
9. Native or nonnative species—Some people recommend planting native (indigenous) species over nonnative (nonindigenous) species because, theoretically, they are better adapted to an area. This is not necessarily true since most residential landscapes are disturbed sites and unnatural environments that probably will have more inputs (irrigation, fertilizing, and pest control) than the preexisting natural environment. Native plants are not always more drought tolerant than nonnative species either.

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**Note:** The bottom line is to choose the best plant that is adapted to the area you are going to plant it in and that meets your desires for your landscape.

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10. Nonnoxious—Noxious weeds are a serious problem in agricultural areas. If you plan to purchase or introduce plants from out of state, contact your local Extension educator for information or the County Weed Control supervisor about noxious weeds in Idaho.
- H. Other Considerations When Buying Plants
- Some other important things to consider when you are **buying** plants are:
1. To ensure greater adaptability to your area, purchase plants that local seed sources have produced. This is especially important for woody and herbaceous perennials.
  2. Before purchasing plants via mail order, check local nurseries. You may save

money, and you will be able to inspect the plants for pests and diseases. Also, you are more certain of getting a live plant.

#### IV. Installation and Renovation

Follow these steps when installing a new landscape or renovating an older one. The sequence depends upon your needs and abilities.

##### A. Primary Hardscape

Install sidewalks, driveways, walls, terraces, decks, patios, and ponds. These will define your use areas and will prevent future damage to your landscape if done in the beginning.

##### B. Install Planting Beds

Amend soils, if necessary, and install weed barriers, if desired.

##### C. Plant or Move Trees and Shrubs

Plant and transplant shrubs early in the spring or late fall when plants are dormant and the soil is workable. Do not transplant large trees and shrubs when they are actively growing.

##### D. Install Automatic Irrigation System

##### E. Plant Lawn or Ground Covers

Add soil amendments if you have poor soils—especially soils low in organic matter—or plant some type of an annual cover crop to improve the soil before planting.

#### V. Maintenance and Irrigation

##### A. Maintenance

Review the maintenance requirements of your landscape plan before actually installing the landscape. This will save you a lot of frustration and expense in the long run. Refer to other Master Gardener chapters for more information about the following maintenance activities:

1. Proper pruning—Timing and technique is important. (See UI BUL 819, “How to Prune Deciduous Landscape Trees.”)
2. Staking and wrapping trees or shrubs.
3. Mulching—Includes organic, inert, and synthetic mulches. Organic mulches should not be deeper than 2 to 4 inches. Incorporate fine mulches such as sawdust into the soil. Plastic, nonporous mulches are not recommended for landscape use.

(See UI Extension CIS 858, “Using Bark and Sawdust for Mulches, Soil Amendments, and Potting Mixes,” for more information about mulches on the landscape.)

4. Pest control—Includes disease, insect, and weed control.
5. Proper turf management—Mow grass to proper heights. Leave trimmings as a mulch to improve soil and water retention, fertilizing, and top-dressing. Proper watering is also important to maintain a healthy lawn, and to avoid waste, runoff, and water pollution. (See Chapter 14 for more information and publications about establishing and maintaining a lawn.)

#### B. Water Management

Match the irrigation program to the plants’ moisture requirements, the time of the year, and soil types. Important components of a good water management program include:

1. Proper timing and duration of watering—Deep and infrequent waterings are better than shallow frequent waterings. Deep water evergreen trees and shrubs before the ground freezes in the winter.
2. Match sprinklers and irrigation scheduling to plants and planting areas—Trees and shrubs require less frequent watering than turf and herbaceous ornamentals.
3. Monitor and maintain the irrigation system frequently to prevent runoff, waste, and pollution.

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## Further Reading

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### Books

- Adams, E. Blain. 1992. *Homescaping*. Publication B-951, Cooperative Extension Service-USDA, University of Wyoming, P.O. Box 3313, Laramie, WY 82071-3313. (There is a nominal charge for this landscaping kit.)
- Bienz, D. R. 1980. *The Why and How of Home Horticulture*, W. H. Freeman and Co., San Francisco, CA.
- Calkins, Carol C., Ed. 1981. *Reader’s Digest Illustrated Guide to Gardening*. The Reader’s Digest Association, Inc., New York, NY.

- Dirr, Michael A. 1983. *Manual of Woody Landscape Plants*. Stipes Publishing Co., Champaign, IL.
- Hogan, Elizabeth L., Ed. 1990. *Sunset Western Garden Book*, 5th Ed. Sunset Publishing Corp., Menlo Park, CA.
- Krukeberg, Arthur R. 1982. *Gardening with Native Plants of the Pacific Northwest*. University of Washington Press, Seattle, WA.
- Millard, Scott, Ed. 1977. *All About Groundcovers for Slopes, Walkways, Rock Gardens, Wide Open Spaces, and Nooks and Crannies*. Ortho Books, Chevron Chemical Co., San Francisco, CA.
- Nelson, Wm. R., Jr. 1975. *Landscaping Your Home*, Revised Edition. Cooperative Extension Service, College of Agriculture, University of Illinois, Champaign, IL.

### Booklets and Pamphlets

#### University of Idaho Extension

- CIS 923 Choosing Nursery Stock for Landscaping, Conservation, and Reforestation
- CIS 1068 Fertilizing Landscape Trees
- PNW 496 Grafting and Budding Plants to Propagate, Topwork, Repair
- BUL 819 How to Prune Deciduous Landscape Trees
- BUL 644 How to Prune Coniferous Evergreen Trees
- CIS 991 Landscaping and Utilities: Problems, Prevention, and Plant Selection
- CIS 1054 Low Input Landscaping
- PNW 500 Plant Materials for Landscaping—A List of Plants for the Pacific Northwest
- EXT 704 Soil Sampling
- CIS 858 Using Bark and Sawdust for Mulches, Soil Amendments, and Potting Mixes
- CIS 990 Water Conservation in the Landscape