Landscape Planning for Farm and Home

Cooperative Extension, South Dakota State University

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The purpose of this circular is to provide information to help South Dakotans make their homes more beautiful and more satisfying places to live whether in town or in the country. The terms landscaping, home beautification, and home grounds improvement often are used to describe this activity.

An important concept in landscape planning suggests that the plan be practical and that it add beauty to the home grounds. Such a plan hinges on three important factors:

1. A neat grounds with house, walks, drives, and fences well cared for and in good repair
2. An established, well-kept lawn
3. Wise use and placement of shade trees, shrubs, and flowers

There are two types of home grounds in South Dakota. The first includes those where a number of suitable plantings already exist. The second type has few or no plantings whatsoever. Improvements for home grounds of the first type may include the removal of some existing plants and the addition or replacement of other desirable plant materials to complete the landscape plan. Improvements for home grounds with few or no plantings involve the planning and establishment of suitable plantings to create a pleasing setting for the home. Proper maintenance is important in both types of home grounds improvement. This cannot be over emphasized and should be kept in mind when developing a plan.

It is essential to plan improvements with a scale drawing of the home grounds. Plantings can be outlined and recorded on the landscape plan, and a plant list for ordering can then be made up from the drawing. Both plan view and side sketches of the home and grounds are helpful.

There are four essential points of home grounds improvement:

1. An understanding of basic landscaping principles
2. Preparation of a basic scale drawing landscape plan of the property
3. Preparation of a plant list describing the plants to be used in carrying out the plan
4. A planned program of care and maintenance of the plantings

This is the view that Mr. and Mrs. Franklin Shaw have from the picture window of their rural home near Brookings, S. Dak. It is the result of a landscape plan.
Orientation of Home and Grounds

The orientation or relationship of the home and grounds should provide maximum convenience and livability for the home owner.

Exposure

The center of family activity during the day should be the cheeriest and brightest area of the home. This is probably the kitchen, dining or living area with a south, southeast, or south-western exposure. In the case of farm homes, all buildings should be visible from the house. The location of sewage system should not interfere with the proper placement of shade trees.

Climate Control

When planning the home grounds, remember—the climate around the home can be modified by the use of plant materials. The location of shelterbelts, shade trees, and shrubs; the planting of turf or other ground cover; and the placement of walks and drives all influence the climate around the house.

Protect the farmstead by planting shelterbelts on the sides that face the prevailing winds. Place shade trees near the south and west sides of the house; they shade the home in summer but allow warm sunshine to come through in winter. Place other shade tree for balance and interest. Use turf or other ground covers and the proper placement of walks and drives to control the reflection of the sun. (Bulletins on the establishment and care of shelterbelts are available at county extension offices.)

Access

Walks and drives are entryways to the home grounds. Here utility and beauty can be developed together. Plan walks and drives wide enough to accommodate expected traffic. (A walk fifty-four inches wide will allow two people to walk side by side.) They should take traffic directly to the desired entrance or area. Monotony can be relieved with pleasing curves or unusual plant materials. Drives for the farm home should also provide adequate parking space near the living room entrance and adequate turn-around space. Take care in placing shrubs near drives—they can create a snow trap in winter, an inconvenience if snow removal is a problem.

Plant Materials and Their Care

Select turfgrass, trees, shrubs, flowers, and vines according to their adaptability to the area, their winter hardiness, size, shape, color, texture, and soil and site preference. A list of recommended plant materials is available in Extension Circular 607, “Ornamental Trees and Shrubs for Landscape Plantings in South Dakota.”

Turf

A good turf is the basis of a beautiful home grounds. It depends on suitable soil, adapted grasses, adequate moisture, regular feeding, and pest control measures.

A rich loam is good turf soil. Soil with a fairly high organic content will hold moisture better. There should be at least four inches of top soil—six to eight inches is ideal. A plow, disk, or spade can be used to prepare top soil for planting grass. A light rolling after seeding provides a firm seed bed.

Apply fertilizer at the rate of two pounds of actual nitrogen per 1,000 square feet. Work this into the soil as you prepare it for seeding to help the new grass get off to a good start. Fertilize established lawns in March and August at the same rate.

Kentucky bluegrass is well adapted in most areas of South Dakota. It will not do well, however, in extremely dry areas where water is not suitable or available for irrigation, or in spots that are heavily shaded all day. In sunny, moist areas a seed mixture of 60 per cent Kentucky bluegrass, 30 per cent creeping red fescue, and 10 per cent redtop is suggested. Under ideal conditions a higher percentage of bluegrass can be used. In heavily shaded areas a mixture of 60 per cent creeping red fescue, 30 per cent Kentucky bluegrass, and 10 per cent redtop is satisfactory.
In drier areas the Fairway strain of crested wheatgrass is recommended. Creeping red or alta fescue grass can tolerate considerable drought and shade and can be used to advantage in such locations. In extremely dry areas of the state or in areas where water is not suitable for irrigation, mixtures containing a high percentage of Fairway crested wheatgrass or creeping red fescue are desirable. In some cases, buffalo grass may be the most satisfactory. Seed mixtures at the rate of three pounds per 1,000 square feet.

After the top soil has been worked down to a good seed bed, loosen it slightly in preparation for seeding. Distribute seed evenly, and just barely cover. Roll very lightly. Keep the soil moist until the grass seedlings are established. On established lawns keep the soil moist throughout the top six to eight inches with weekly soaking rather than daily sprinkling.

Clip the grass at a height of 1 ½ to 2 inches and remove the clippings. Clipping actually does not benefit the grass—it merely gives the lawn a neat appearance.

Pests of turf include insects, rodents, weeds, and diseases. Most soil insects and rodents can be controlled with chlordane. Most broad-leaved weeds can be controlled with 2,4-D weed killer. (Be careful not to treat other sensitive broad-leaved plants.) Several materials are available for the control of crabgrass. Pre-emergent chemical control methods also are quite effective in destroying crabgrass seedlings. Follow the directions on the label of the material used.

Lawn diseases may be prevented or controlled if infection is discovered early. Some diseases of lawns are brown patch, dollarspot, leafspot, and snowmold. Fungicides such as Tersan, Calocure, Calo-Clor, Actidone, or Special Semesan are effective in controlling these diseases. In all cases, when using poisonous pest control materials, be sure to follow the manufacturer’s directions on the container label. Keep these materials under lock and key or in a safe place away from children.

WOODY PLANTS

Woody ornamental plants include trees and shrubs which have a woody growth and live for many years. Deciduous and evergreen trees and shrubs are included in this grouping. Trees are essential in the home landscape scene for: 1) shade, 2) enframe-ment and background for home, and 3) specimen plantings. Shrubs are utilized in borders, screens, hedges, and in planting about the foundation of the house. More information about the proper placement of these materials is presented in the section on principles of landscape planning.

Trees

Early spring is the best time to transplant trees in South Dakota. The transplanting hole should be about twice the diameter of the spread of the tree roots. When digging the hole, cover the lawn with canvas or cardboard so that the soil can be replaced easily without disturbing the lawn grass.

Set trees slightly lower in the soil than they were in the nursery. Hold the tree in place and partially fill the hole. Put top soil in first and pack firmly about the roots. When the hole is ¾ full, add water to settle the soil. As the water soaks away, add the remaining soil. Most evergreen trees come from the
nursery with roots in a ball of soil wrapped tightly in burlap or as container-grown stock. After placing the tree in the hole, loosen the burlap and fold back from the top of the ball before filling the hole.

It may be desirable to support trees with stakes until they become well established. Young deciduous tree trunks can be wrapped with burlap, aluminum foil or sisalkraft paper to prevent sunscald, drying of bark, and borer damage.

Trees need adequate moisture year around for best growth. When necessary give trees a good soaking. Check the depth of moisture with a soil auger or spade. The root zone soil should be moist.

Trees also require plant food. The best time to apply fertilizer is in early spring. Apply one to two pounds of complete fertilizer for each inch of trunk diameter at breast height (4½ ft.) for trees up to six inches in diameter, and two to four pounds per inch for those trees over six inches in diameter. Place in evenly spaced holes punched into the soil under the tree branches. Root feeding devices which attach to watering hoses also are available for this purpose. Use fertilizers of 6-12-6, 10-6-4, 10-10-0 or similar analysis. The analysis represents the per cent of nitrogen, phosphorous, and potash, respectively, in the fertilizer.

Shade trees require pruning to train the trees to proper shape and to remove broken or diseased branches. The best time to prune most deciduous trees is early in the spring. Pruning at this time will stimulate growth; pruning after growth has started will tend to retard growth. When pruning large branches make the cut as clean and as close to the crotch as possible. Make cuts on the trunk parallel to the trunk. In removing large branches take care not to tear or destroy the bark. Under-cut the branch to prevent this. Treat large wounds with a wound dressing to hasten healing. Special materials are available on the market for this purpose. Orange shellac also can be used. (Refer to SDSU Fact Sheet 23.)

Evergreen trees are pruned to remove dead branches and to maintain a desired shape. Most evergreen pruning can be done by pinching or shearing off a portion of the new tip growth. Not all evergreens can be pruned in the same manner or at the same time, however. For compactness, prune evergreens such as spruce and pine by removing the center bud in each tip cluster early in the spring. Compactness can be encouraged in arborvitae and junipers by shearing the trees with a hedge shears in early spring after some new growth has appeared.

Evergreen can be kept at a desired height by removing the central leader. In case the central leader is accidentally broken, a lower branch can be trained by supports to develop into the leader.

Check trees regularly for signs of insects or diseases.

Shrubs

Shrubs are classified according to size, shape, color, blossom, foliage, texture, and site preference. The shrub list in EC 607 gives a wide selection from which to choose. Select shrubs to fill a particular need or to provide a desired accent; they can be used as borders, screens, foundation plantings, and hedges.

In South Dakota the best time to plant shrubs is in early spring. Plant as soon as shrubs arrive from the nursery so that roots don’t dry out. Place in rich soil in holes 15 to 18 inches deep and wide enough to accommodate the roots. Add well-rotted manure to the soil for extra vigor. Place shrubs a little deeper than they were planted in the nursery. Firm top soil around the roots, and water to settle the soil. Prune back at the tips after planting in order to balance out the loss of roots in the transplanting.

Shrubs need periodic pruning to: 1) renew the wood, 2) increase bloom, 3) keep ornamental twig sorts attractive, 4) remove insect-infested wood, and 5) train them to special forms. Do not prune too severely at any one time. Thinning out and trimming is better than cutting all top growth. If shrubs become old and unsightly, cut them to the soil line to encourage new vigorous growth from the crown of the plant.

Shrubs can be pruned at three different times depending on the character of the shrub. Prune shrubs which bloom very early and produce flowers on last year’s wood, after flowering to remove unsightly seed pods (e.g. caragana, forsythia, lilac, spirea, climbing roses). Shrubs with ornamental fruits need to be trimmed a little after flowering and a little in earliest spring (e.g. Japanese barberry, hydrangea, and potentilla). Prune evergreen shrubs in early spring by removing a portion of the new tip growth. Shear evergreen hedges, such as cedar, whenever necessary to maintain the desired size and shape.

When shearing shrub hedges, taper them narrower at the top than at the bottom to allow more sunlight to reach the lower branches and promote denser growth and a neater hedge. Cut young hedges back quite severely to encourage the development of a dense system of branches.

Shrubs require special care in feeding, watering, and pest control. Fertilize every spring, and mulch each fall with well-rotted manure. Apply one pound of fertilizer per 20 square feet of area, then water. Use fertilizers suggested for shade trees. Water shrubs to the root zone throughout the growing sea-
son. In the fall water well after trees drop their leaves but before the ground freezes.

Insect pests of shrubs include scale insects, red spider, aphids, borers, worms, slugs, and caterpillars. Disease pests are not common where good growing conditions exist. Regular use of an all-purpose spray dust containing insecticide and fungicide chemicals will help prevent troubles. Some plants show yellowing leaves when there is a shortage of available iron in the soil. Use materials containing iron sulfate such as Versene and Sequestrene to correct this condition.

### FLOWERS

Flowers add color and interest to foundation plantings and mixed borders. They include annuals and perennials, roses, and flowering bulbs, corms, tubers, and roots.

**Annual** flowers start from seeds, produce blooms, mature seed, and die — all in one growing season. For early flowers, start seeds in the house in early spring and transplant outside when warm weather comes. Flower transplants usually are available at local greenhouses. See FS 322, “Growing Annual Flowers in South Dakota.”

**Perennials** live from year to year and are usually propagated by vegetative means, although a few can be started successfully with seeds. The rootstocks overwinter in the soil and send up new shoots each spring. Some perennials may be planted in the fall while others are better planted in the spring. This information is available in FS 323, “Growing Perennial Flowers in South Dakota.”

The **flowering “bulb”** group, as the name implies, grow from bulbs, corms, tubers, and root pieces. Some remain in the soil for years, but others must be removed each fall, stored inside, and replanted again in the spring. This “bulb” group of flowers includes tulips, gladiolus, dahlias, cannas, and begonias. The latter must be dug for storage. See FS 323 for proper planting time.

Flower plantings are a component part of the landscape scene, so plan them to compliment the rest of the plantings. You may use flowers of all the types mentioned above. Remember, however, that personal preference is only one of the factors governing the selection of flowers for home grounds plantings. When choosing flowers consider size, color, and length of bloom.

### Size

Arrange flowers so that the taller ones grow toward the back of the plantings. Plant medium and low-growing flowers (edging plants) along the forward edge of the border. Use taller flowers spaced at intervals in the planting to create an interesting accent. Plant small plants in groups of three or more depending on the overall size of the planting. Larger plants can also be massed in groups. The width of the flower planting will vary depending on space available, but a width of about six feet usually is maximum.

### Color

When planning flower borders give consideration to the color of the flowers to be used. In general, about ¼ of the flowers should be light colors, ½ medium shades, and ¼ darker colors.

### Bloom

Plan an all-season planting which will bloom continuously from early spring to late fall. Space flowers that bloom at certain times of year throughout the border to give the impression of over-all flowering at any given time. Such a plan may require the use of a wide variety of flowers.

Use references and seed catalogs to help in choosing flowers. Bulletins on growing garden flowers are available at county extension offices.

Soil for flower plantings should be in good condition and well prepared. Use well-rotted manure to improve the fertility and water-holding capacity of the soil. The annual use of a well-rotted manure top dressing or commercial fertilizer will help produce strong plants and large blooms. A light application of the fertilizers suggested for shrubs is suitable.

Planting instructions usually accompany seeds or plants received from the seed company or nursery. Plant at the recommended depth, and pack the soil well to insure good growth. Keep soil moist while the plants are becoming established. Water the flower plantings to maintain a good rate of growth and blossom production, especially during dry periods. Keep soil moist to about a depth of one foot. Stakes, fencing, or other guards may be used to protect plants from wind and other damage. Check plantings regularly for symptoms of insects or disease. Regular use of “all-purpose” dusts or sprays will be helpful in controlling most pests.

### VINES

Vines may be planted to climb on a trellis or wire when there is not space enough for a shrub planting. Vines suitable for planting in South Dakota are listed in EC 607.
Principles of Landscape Planning

Prepare a scale drawing for planting home ground improvements. As this plan is developed, it can be checked to see that the principles of good design are followed. It is impossible to carry out a successful improvement program without a detailed plan. A scale drawing for a home grounds with existing plantings can be prepared in the following manner.

**Draw the Plan**

Draw your plan on a large sheet of cross-section paper. Choose a scale to use in drawing the plan; one inch equaling sixteen feet is a popular scale. Prepared sheets are often in a scale of ten feet to the inch. Using the chosen scale, draw in the boundaries of the home grounds and other existing features — house, garage, walks, drives, trees, shrubs, clothesline, etc. Indicate the scale and the direction “north” on the drawing. Show all items as near actual scale-size as possible. (See figure 1.)

**PRINCIPLE NO. 1 — Utilitarian Features**

Draw in utilitarian features on the landscape plan. (See figure 1.) Drives should lead directly to the garage and to the service or parking area. In the case of the farm home, provide properly located parking and turning-around space. Walks should be directly from the drive or parking areas to the house entry ways they are to serve. Slight curves are often effective in relieving the monotony of straight lines.

The garage is most convenient when attached to or adjacent to the house. Locate the clothesline in the service area as close as practical to the laundry room door. It should be as inconspicuous as possible. Locate the garden, play area, and other desired utilitarian features in or adjacent to the back door area. Indicate existing plantings if any. Add title and plant list (see figures 2 or 3).

**PRINCIPLE NO. 2 — Division of Grounds**

Divide the home grounds into three general areas — public, service, and private. A thorough study of your sketch will enable you to visualize appropriate divisions. (See figures 2a and 3a.)

The public area is usually considered to be the front yard or approach area. It usually has a few plantings at the foundation, shade trees for enframement, and perhaps a specimen planting such as an evergreen or flowering tree.

The service area frequently includes the back door or work area. It will include utility items such as clothesline, delivery area, garage, drive, walks, sand box and play area for children. Plantings may include screen borders or fences to separate the work area from the other areas, screening of undesirable views, and shade or ornamental trees.

The private area is what is left; it usually includes the back or side yard. This outdoor living room or recreation area may include a patio, a fireplace or portable grill, picnic tables, and other lawn accessories. This area requires considerably more plantings to provide privacy and beauty. It can be more or less separated from the other two areas by the use of plant materials or other types of screens or fences to develop privacy and to provide a background for flower borders. Shade must also be provided.

**PRINCIPLE NO. 3 — Shade Trees**

Locate shade trees in the landscape plan. (See figures 2b and 3b.) Shade trees should provide shade for the home and for the private or outdoor living area. At the same time, they should provide a frame and background setting for the house. Specimen trees may be placed where they can be enjoyed from a view inside the home. Trees may also be placed in the public area — at the sides and forward of the house — to enframe the home. Other trees can be placed on the boundary of the home grounds, along the parking strip, or at the rear of the property to serve as a background to the home grounds. Select trees that are in good scale with the size of the house. One misplaced tree can spoil the entire home grounds picture.

**PRINCIPLE NO. 4 — Shrubs, Flowers, Vines**

Shrubs — (See figures 2c and 3c.) Shrubs can be used as foundation plantings; in screens, borders, or hedges; and as a background for flower borders. Shrub screens are used to divide the grounds into the three general areas or to close off undesirable objects or views. Shrubs may be mixed as far as species and sizes. It is better to use several plants of a few species rather than one or two plants each of several species.

One of the most important uses of shrubs is for foundation plantings. Plantings around the foundation provide a tie-in between the lawn area and the home and may accentuate or cover up certain features of the home. The appearance of the home grounds can either be improved or damaged depending on the selection and placement of shrub plantings.

The entrance to the home can be emphasized with shrubs. Arrange plantings around entrances to make
Choose shrubs to add interest and beauty to the home. Strive for enough variety to relieve monotony and yet create an interesting and pleasing landscape picture. Allow shrubs to grow naturally or train them to a hedge by clipping and shearing.

**FLOWERS** — Flowers add color and interest to the landscape planting. They can be used effectively in combination with the foundation shrub plantings or the borders. Annuals and perennials, bulbous, tuberous, and root plants can be used in these areas. Flowers for cutting may be grown in the garden area. Do not locate flower beds in the middle of the open lawn area — flowers should be used in marginal, border, or foundation plantings.

**VINES** — Vines can be used to give quick results since they grow fast and cover large areas. They can be used on a trellis or wire where there is not room for shrubs, or they can be planted near a porch, arbor, or fence to give shade and privacy. They can be used near brick or stucco homes to add interest to the walls. Vines also may be planted as a ground cover or covering for other features in the home surroundings. Choose vines for the specific purpose for which they may be especially adapted.
Figure 2. Utilitarian features

Figure 2a. Division of home grounds

PRINCIPLE NO. 1

PRINCIPLE NO. 2
PRINCIPLE NO. 3

Figure 2b. Locating shade trees

PRINCIPLE NO. 4

Figure 2c. Locating shrub and flower plantings
Figure 3a. Division of home grounds

Figure 3b. Locating shade trees
Figure 3. Utilitarian features

Figure 3c. Locating shrub and flower plantings
Selection of Plants

Plantings should give balance and harmony to the landscape. Know the growth habits of the particular plants you choose. Select plants which are adapted to the area and to the site. Consider the mature size of the plant; do not crowd wide-growing shrubs in narrow areas between the house and the sidewalk, or use very tall trees near low rambler houses. Do not mix fine-textured plants with very coarse material.

Most nursery catalogs give adequate descriptions of the plants they list. You will find these catalogs a useful reference when selecting plants to fit the landscape plan.

In Summary

It is a challenge for every family to plan and carry out a home grounds improvement project, but in some cases it will be advisable to secure the services of a skilled landscape designer. The task of planning an improvement program should not be too difficult a task, however, if you make use of the suggestion offered in this circular. In fact, the planning period should be a time of enjoyment, learning, study, preparation, and expectation. As time goes by and the plantings develop into the picture that was created with the landscape plan, the home grounds improver will be well-rewarded for the efforts he has made in providing his family with a more beautiful and comfortable place in which to live.

Remember

- Study your home grounds as they are at present.
- Prepare a scale drawing of the home grounds, locating all existing features.
- Divide grounds into public, service, and private areas.
- Draw in utilitarian features such as garage, drives, walks, parking space, clothesline, utility poles, sewer lines, etc.
- Locate shade trees, specimen trees, and other trees for enframement, borders, and background.
- Develop foundation plantings and other shrub features such as borders, screens, and hedges.
- Plan use of flowers in foundation plantings and flower borders.
- Study references and seed and nursery catalogs.
- Prepare list of plants needed.
- Establish and maintain plantings and other improvements.
- Enjoy the beautiful surroundings you have developed.
Useful Publications

EC 607—Ornamental Trees and Shrubs for Landscape Plantings in S. Dak.
FS 23—Pruning Shade Trees
FS 54—Lawns for S. Dak.
FS 148—Pre-emergence Crabgrass Control
FS 322—Growing Annual Flowers in S. Dak.
FS 323—Growing Perennial Flowers in S. Dak.
University of Minnesota Bulletin 258—Evergreens
USDA Home and Garden Bulletin 91 — Growing Flowering Annuals
USDA Home and Garden Bulletin 114 — Growing Flowering Perennials
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