COOPERATIVE EXTENSION SERVICE
SDSU

Extension Extra

ExEx 6034
September 1999
Horticulture/Forestry

COLLEGE OF AGRICULTURE & BIOLOGICAL SCIENCES / SOUTH DAKOTA STATE UNIVERSITY / USDA

Hedge Shearing

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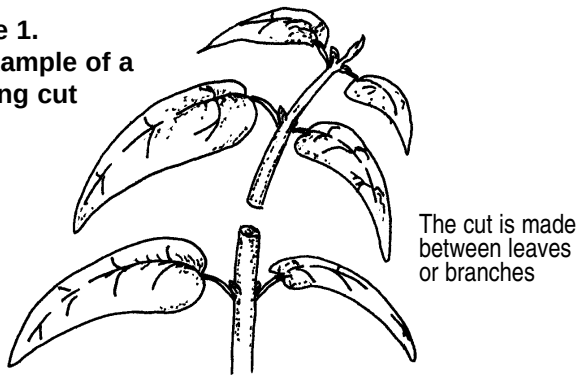
Hedges are a common feature of many South Dakota residential landscapes. A hedge is a row of tightly spaced shrubs or trees, usually of a single species, that function and are maintained as if they were a single plant. They are used to delineate boundaries between neighbors, screen views, accent flower borders, and help direct snow and wind movement. In order for a hedge to provide these and many other benefits, it must receive annual maintenance.

This Extension Extra covers the proper application of shearing to maintain deciduous and evergreen hedges. Shearing involves the heading of the current year's shoot growth and differs from pruning. Pruning is covered in the Extension Extra 6033, *Pruning Deciduous Shrubs.*

Shearing makes use of heading cuts. Heading is shearing the shoot tip back to a stub (Figure 1). Since shearing hedges involves the removal of the terminal bud of a growing shoot, it is also sometimes referred to as pinching.

Figure 1.
An example of a heading cut



Deciduous Versus Evergreen Hedges

Hedges may be deciduous or evergreen and informal or formal. The choice of deciduous or evergreen depends upon the function of the hedge. If a screen is needed during the winter months, then evergreen is the best choice. Evergreen hedges, however, often take longer to establish, may suffer from winter burn, and cannot be rejuvenated as easily as deciduous hedges.

Informal Versus Formal Hedges

Regardless of the choice of either deciduous or evergreen, hedges may be maintained as formal or informal. Formal hedges maintain a very neat, even appearance that requirs more careful selection of species and involves more frequent shearing. Informal hedges have a more wavy appearance, do not require as much care, and the list of suitable plants is much larger.

Plants to Use as a Hedge

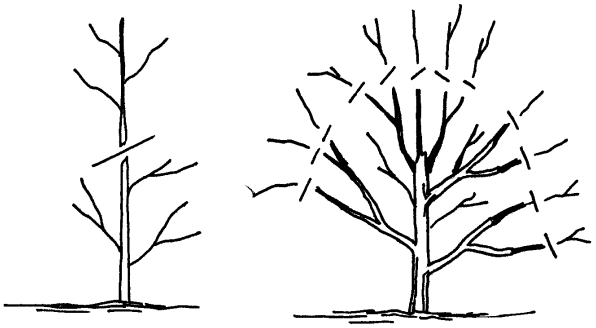
The best plants to use for a hedge have several common characteristics: small leaves (less than two inches long), slow growth, and dense branching. Large leaves are often cut by the shears which results in tattered and browning leaves. Plants with fast growth rates will usually require more frequent shearing. Plants with large leaves and fast growth rates can be used as hedges, but they are best utilized as more informal, taller screens. Table 1 identifies some of the better hedge species.

Starting a Hedge

Plants used as a hedge are usually planted as small bare-root stock (see Extension Extra 6018, *Planting a Bare-Root Tree*) about 18 inches apart for small hedges and 36 inches apart for tall hedges.

Dormant plants are headed back about 1/2 their height after planting. Before growth resumes the following spring, the plants are headed back to about 1/3 the previous year's growth (Figure 2).

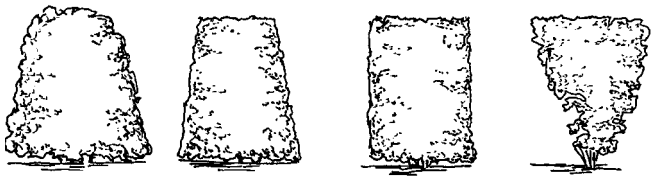
Figure 2. The proper procedure to train a newly planted hedge.



The newly planted plant is headed. In subsequent year the plant is headed back about one-half its height back about 3 inches everytime it put out another foot of growth.

During the second year, the current year's shoot growth is headed back about three inches every time the growth exceeds one foot in length. Each time the plant is sheared, the top should be headed more severely than the side branches. The hedge should always maintain the shape depicted in Figure 3.

Figure 3. Hedge shapes



The two hedges on the left are the generally the best as both allow light to reach the lower branches. The third hedge (from the left) is acceptable for rapidly growing shrubs such as barberry and privet. The hedge on the far right is unacceptable as the lower branches will be shaded by the branches above.

This shearing pattern continues until the plant achieves the desired height. This may require one to five years depending upon the desired height and the growth rate of the species.

Frequency of Shearing Established Hedges

Shearing is not performed on a weekly, monthly or yearly basis. Instead, the frequency of shearing is determined by the rate of shoot extension.

Shear back an established hedge to only a few leaves formed since the last shearing. This generally means about one to two inches of new shoot growth is maintained after each shearing. The subsequent shearing is conducted when the shoot growth extends another few leaves.

Every time the hedge is sheared, careful attention must be paid to maintaining the proper overall shape of the hedge. The hedge shape has a major influence on the foliage density, particularly the lower portion of the hedge. Unless the lower foliage receives adequate light it may be shed resulting in a more open appearance to the base of the hedge.

In order for the base of the hedge to receive sufficient light, it must be wider than the top of the hedge. This takes a conscious effort on the part of the shearer as most people naturally swing their arms in while shearing, leaving the hedge base narrower than the top.

Shearing Evergreens

Evergreen shearing requires a slightly different approach from deciduous plants. While the overall shape of the hedge is identical, wider at the bottom than at the top, the timing and placement of the cuts changes. Junipers *(Juniperus* spp.), arborvitaes *(Thuja* spp.), and yews *(Taxus* spp.) are common evergreen hedge and foundation plants.

Junipers

Junipers may produce either awl-like (needle-like) or scale-like foliage depending upon the species and age of the plant. Arborvitaes produce scale-like foliage. Yews have flat, single needles.

These plants can be sheared throughout the growing season as long as the shearing does not extend deeper than the foliage. Shearing should also be completed by the middle of August as shearing later during the growing season may result in new growth that does not harden-off in time for winter.

Pines

Pines *(Pinus* spp.) have needles that occur in clusters of two to five depending upon the species. They set their buds only at the tip of the branch. Since lateral buds are nonexistent, pines must be headed back at a very specific time. When the new growth (often called the candle) has elongated so the new needles are about 1/2 the size of the mature needles, the candle can be sheared in half.

This is the only time shearing can be performed on pines. Pinching the candle in half will reduce the annual shoot growth by half and result in a more compact plant.

Spruce
Spruce *(Picea* spp.) have single needles that are usually four-sided while firs *(Abies* spp.) and Douglas-fir *(Pseudotsuga* spp.) have single, flat needles. In addition to the terminal bud, these evergreen trees also set several lateral buds along the new shoot. These trees are best sheared at the end of the active shoot growth, usually around the beginning of August.

Rejuvenating Older Hedges

Shearing requires that the plant be allowed to grow a little each time it is cut. Thus, each time the hedge is sheared it becomes slightly larger. After a certain point, the hedge is too large and it must be rejuvenated. Rejuvenation pruning is covered in the Extension Extra 6033, *Pruning Deciduous Shrubs.*

Rejuvenation pruning can only be applied to deciduous shrubs. Most evergreen hedges do not respond well to being severely headed back. Instead, head them back perhaps six to twelve inches but never beyond green foliage.

Shearing Tools

Shearing can be done with hedge shears or a motor-driven oscillating shear. Oscillating shears are typically powered by an electric motor, though some gasoline powered units are available. Chain saws are not recommended for hedge shearing as they will usually make poor cuts on the smaller diameter twigs and are more dangerous to operate.

Table 1. Species that may be used for hedges.
The * notes species that may be used for formal hedges. These shrubs and trees, while adaptable to hedge culture, may have other problems in the particular area you live. Always check with your local extension office or landscape professional to determine if the species you selected is a good choice for your area. The following list only identifies species. In many cases, particularly with the trees, cultivars are a better choice. The choice of which cultivar to use depends upon the desired height and local environmental conditions.

Deciduous		**Evergreen**	
Berberis thunbergii	Japanese barberry*	*Juniperus chinensis*	Chinese juniper
Buxus koreana	Korean boxwood*	*Juniperus sabina*	Savin juniper
Cornus alba	Tartarian dogwood	*Juniperus scopulorum*	Rocky Mountain juniper
Cornus sericea	Redosier dogwood	*Juniperus virginiana*	Eastern redcedar
Cotoneaster lucidus	Hedge cotoneaster*	*Picea abies*	Norway spruce
Euonymus alatus	Winged euonymus	*Picea glauca*	White spruce
Lonicera tatarica	Tartarian honeysuckle	*Picea pungens*	Blue spruce
Philadelphus coronarius	Mockorange	*Pinus mugo*	Mugo pine
Rhamnus frangula	Glossy buckthorn*	*Taxus cuspidata*	Japanese yew*
Ribes alpinium	Alpine current*	*Taxus x media*	Speading yew*
Spiraea x arguta	Garland spirea	*Thuja occidentalis*	American arborvitae*
Spiraea thunbergii	Thunberg spirea		
Spiraea x vanhouttei	Vanhoutte spirea		
Syringa meyeri	Meyer lilac		
Syringa microphylla	Manchurian lilac		
Syringa villosa	Late lilac		
Springa vulgaris	Common lilac		
Viburnum dentatum	Arrowwood viburnum		
Viburnum lantana	Wayfaring tree		
Viburnum lentago	Nannyberry		
Viburnum opulus	European cranberrybush		
Viburnum trilobum	American cranberrybush		

For more information, contact your county Extension educator or the Horticulture educator nearest you.

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150 copies printed by CES at a cost of 10 cents each. September 1999.