## UNIVERSITY OF KENTUCKY

## COLLEGE OF AGRICULTURE

**Extension Division** 

THOMAS P. COOPER, Dean and Director

CIRCULAR NO. 337

HEDGES — USES, PLANTING AND CARE



An inviting entrance made by a trimmed hedge. Notice trees framing the house.

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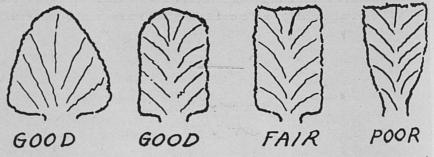
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Japanese Taxus in partially trimmed form. This is one of the best evergreens.



Correct pruning is essential to the development and maintenance of a good hedge. The rounded top with the sides wider than the top encourages good growth of side branches to the ground. The rounded top with the sides vertical is also good and can be easily maintained. The flat top and vertical sides are most often found. This sometimes causes a slight burning of the smaller branches, a trouble eliminated by slightly rounding the top. The wide top and narrow base never produces a good-looking hedge. When this form is once started it is difficult to eliminate. Severe pruning that includes cutting back will often encourage the development of side branches.

## Circular No. 337

## HEDGES — USES, PLANTING AND CARE N. R. ELLIOTT

A hedge is a continuous planting of one kind of plant, spaced equal distances apart. Its purpose is to serve as a fence or boundary, or an enclosure for a specified area. The plants may be either deciduous or evergreen, depending upon the conditions and the amount of money to be spent. The location may determine the kind of material to be used and a home owner contemplating planting a hedge should ascertain certain facts about the kinds suitable for a particular place.

Home owners, in both town and country, are realizing that hedges can frequently be made to serve more effectively than pickets, wire, iron, or other fencing materials, and because hedges have life, they become an integral part of the planting plan. An added advantage is that hedges may be pruned or trained to produce desired effects and it does not require the care of an expert to keep them attractive.

Kentucky is so located geographically that the soil and climate are favorable for growing many different kinds of plants that may be used for hedges. This permits a more extensive use for hedges in this state than is possible in states not so favorably located.

Location. Some of the conditions that govern the location of a hedge are:

1. A trimmed hedge produces a formal effect and the adjoining area should be in keeping with it.

2. A trimmed hedge as a boundary between properties is one of the most conspicuous fences that can be used.

3. A hedge can be used to attract attention to some particular area and, at the same time, serve as a shield or protection for the principal object of interest.

A hedge is often used as a front fence and when correctly located and kept carefully trimmed may become a distinct asset to the property. On the other hand, some homes are not correctly located to support the attention commanded by the trimmed hedge. In such cases it would be much better to have a front fence of a material that does not attract so much attention.

An untrimmed hedge that will attain a height of 10 to 15 feet

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can be used advantageously as a back or side boundary planting, and at the same time screen out an undesirable view.

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**Materials.** A few years ago it was believed that there were comparatively few plants suitable for planting in a hedge row. The California Privet, *Ligustrum ovalifolium*, was the kind most commonly used. During the past few years it has been found that many plants are suitable for use as hedges. Those now in popular use



Privet hedge growing beneath an awning, making a screen for the side porch and a boundary for the drive. This hedge is five years old.

include: Broadleaf Fragrant Honeysuckle, Lonicera fragrantissima, Vanhoutte Spirea, Spiraea vanhouttei; Mock Orange, two kinds, Philadelphus coronarius and Philadelphus virginalis; Flowering Quince, Chaenomeles lagenaria, old name, Cydonia japonica; Winged Euonymus, Euonymus alatus; Japanese Barberry, Berberis thunbergii; Snowhill Hydrangea, Hydrangea arborescens grandiflora; Amur Privet, Ligustrum amurense; Ibolium Privet, Ligustrum ibolium; California Privet, Ligustrum ovalifolium; Regel's Privet, Ligustrum obtusifolium regelianum; Hugonis Rose, Rosa hugonis; Highbush Cranberry, Viburnum opulus; a number of evergreens such as Canada Hemlock, Tsuga canadensis; Japanese Yew, Taxus cuspidata; Upright Japanese Yew, Taxus cuspidata

capitata; Norway Spruce, Picea excelsa; White Pine, Pinus strobus; Pfitzer's Spreading Juniper, Juniperus chinensis pfitzeriana.

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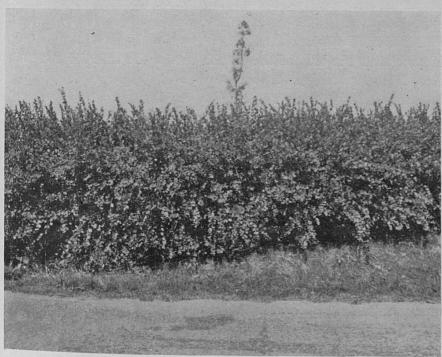
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The size, shape, cost and use for which the hedge is planted will determine the kind to use. For example, the hedge that is to be kept trimmed to a height of four feet or less should consist of plants that have small leaves and stems. Evergreens make a richer looking hedge than deciduous plants, regardless of whether they are pruned or not. Their use should be considered when the cost is not a limiting factor.



An untrimmed Broadleaf Fragrant Honeysuckle hedge along a roadside. The farm fence is back of the hedge. Horses seldom eat this hedge.

Under certain conditions it will be desirable to select a kind of plant for a hedge that produces flowers and, in some instances, conspicuous fruit. This type is often used for a back-ground or border to an area where flowers are grown.

When the hedge is to be left untrimmed, careful attention should be given to the form of growth that the individual plants will have. For example, some plants have a spreading habit of growth and untrimmed hedges of this kind must be given plenty of space; others have an upright habit with little spread and thus require less room. Again, the use will determine the kind of plant to select.

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Methods of Planting. For many years there were two methods of planting hedge rows: one, a straight row, where the plants were set in a line equal distances apart; the other, a staggered row where the plants were literally set in two rows having the plants alternating in the rows. The straight, single row has practically supplanted the staggered row and for this reason further discussion of the staggered row is omitted.

In planting a hedge, draw a line where the center of the hedge is to be, then dig a trench with one side directly under this line. The depth and width of the trench will be determined by the size of the plants to be set. As a general rule the trench should be 15 to 18 inches deep and 18 to 24 inches wide. In planting, place the plants against the side of the trench under the line for the center of the hedge, spacing them the required distance apart. Spread the roots as much as possible leaving the trunk of the plant against the side of the trench. When evergreens with balled roots are planted the trunks should be placed in a line where the center of the hedge is to be.

If the soil is poor where the hedge row is to be, bring in enough good soil to fill the trench, packing it carefully around the roots of the plants. Hedge plants respond to good soil the same as any other plants.

The distance apart to set the plants will be determined by the type of hedge that is to be grown, and the kind and size of the plants that are used. When the hedge is to be kept sheared formally, and not to exceed four feet in height, set the small-leaved, small-stemmed kinds 10 to 14 inches apart. This applies primarily to the Privets that are so often used for low, dense hedges. The Barberry and Fragrant Honeysuckle should be set 15 to 24 inches apart. Evergreens, such as Hemlock, Taxus and Spreading Juniper, should be spaced 2 to 31/2 feet apart.

Size of Plants. When using the deciduous kinds such as the Privets, plants 18 to 36 inches tall should be set. These are large enough to have sufficient root systems to transplant easily and, by careful pruning, the top can be developed to any form desired.

Time of Planting. There are two seasons for making plantings in Kentucky, the spring and fall; however, most people prefer to plant deciduous hedges in the spring and avoid the risk of some of the young plants being killed by winter. By planting in the spring it is possible to care for the plants and to be sure that all are starting to grow whereas the fall-planted hedge is often irregular

in the time the plants start spring growth. Evergreens can be successfully planted at either time.

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Pruning at Planting Time. Deciduous kinds should be pruned to compensate for the loss of roots in transplanting and to cause them to develop side branches near the ground. This means that upright-growing kinds such as Privet, Fragrant Honeysuckle and Barberry should be cut back to 6 to 18 inches above the ground at planting time. Since this severe pruning at planting time is es-



Starting to trim Hemlock, begin by topping plants at desired height for hedge.

sential many home owners prefer to buy smaller plants and wait a year or two for the hedge to develop. If these small, young plants are well cared for it is possible to develop a more compact hedge with the side branches extending to the ground. As a rule it will not be necessary to prune the evergreens at planting time since they already have been sheared in the nursery.

Water at Planting Time. Since one of the principal attractions of a hedge is to have all the plants the same size and shape, every possible effort should be made to have them all start to grow about the same time after they have been planted. For the most part, hedge plants are easy to transplant, nevertheless liberal amounts of water at planting time and for a few weeks after, will often mean a better looking hedge when it is grown. One to two

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gallons of water should be applied to each plant when it is set. Apply the water after the roots have been covered with good soil that has been firmly pressed around them; then finish filling the trench with soil, leaving it slightly below the surface level around the stems of the plants. This forms a basin to hold the water that should be applied every week or ten days until all the plants have started growth. In setting 200 or 300 hedge plants it will often be found that 2 or 3 of the plants will be slow in starting to grow but a little extra attention in the way of water and cultivation will usually mean the saving of such plants.



Low-growing spreading Taxus as a lawn boundary, front walk back of hedge.

Developing the Hedge. Next to the correct planting of a hedge, the pruning or training is the most important detail. Again the kind of plants used and the type of hedge to be developed govern the method of training. The low-growing, dense hedges that are to be kept sheared to a formal design should be pruned severely. When the new growth is about 12 inches long, remove one-half of it. This applies only to the top branches. It is not advisable to cut back the side branches at this time. As a rule this will be all the pruning necessary during the first growing season. By the end of the season the growth should be 18 to 24 inches and should be left

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until the next spring when 4 to 6 inches of the top should be removed and the side branches headed back just enough to give an even appearance. This means that the hedge will be approximately 15 inches tall after the first pruning in the second year of growth. During the second season, pruning should be done three or four times, permitting the height to increase 3 or 4 inches each time. The side branches should be cut back just enough to encourage the development of laterals. This makes the bottom of the hedge dense and attractive. When pruned in this manner, the hedge will increase in height about 12 to 18 inches a year, and this should continue until the desired height has been attained. Then the height can be maintained with only a slight increase, one to two inches, each year.

Annual Care of a Developed Hedge. After the hedge has attained the desired size it should be pruned or trimmed whenever it has a growth of about 6 or 8 inches. It is impossible to say how many times to prune each year as that will be governed entirely by the season and the care given. It might be said that on the average it will need three or four prunings a season.

One thing should be kept in mind and that it, not to prune too early in the spring or late in the fall. When pruned too early in the spring, a second pruning will soon be necessary for the plants are making an active growth at that time and the extra leaf surface is needed by the plant for the manufacture of plant food. When pruned too late in the fall it stimulates a late growth that is often killed by winter. While it is impossible to give exact dates for the last fall pruning, September 15 to October 1, depending on the section of the state, should be the last dates for shearing. This may mean that the hedge will go into winter somewhat uneven in appearance, but it will be the best for the plants.

It is not desirable to cut the hedge back to the ground every few years in order to renew the top. Winter injury may kill some of the plants entirely, but even then it will usually be found more satisfactory to buy as large specimens as possible and use them to replace those killed by winter. Winter injury can very largely be prevented by using kinds that will stand sub-zero temperatures.

Cultivating and Feeding. Hedge plants, like any others, respond to good care, and cultivation should be a part of the regular treatment given. The cultivation should consist in loosening the soil to a depth of 3 inches in a strip 12 to 15 inches wide on each side of the row of plants. This should be done in the spring and

the soil kept loosened by frequent rakings during the growing season.

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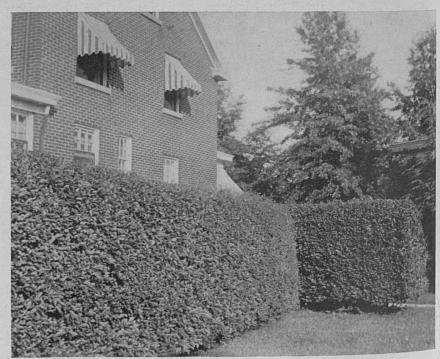
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Feeding is another important item in connection with the growing and maintenance of a good hedge. Well-rotted barnyard manure, applied to the cultivated area in December or January and worked into the soil in the spring, is one of the best means of enriching the soil. Where manure is not available, a high-grade, complete fertilizer may be used, applying one pound to each ten feet of hedge row. This fertilizer should be broadcast over the cultivated area in late February or early March. The plants should not be fed until the second winter after they are set. This gives them a chance to become established. The well-developed hedge will only need feeding every few years. The need can be determined by the annual growth of the plants. The cultivating and feeding recommendations apply to both deciduous and evergreen plants.



Ibolium Privet set five years. Notice how full it is, with the lower branches  $alm^{ost}$  to the ground, the bottom slightly wider than the top and the top rounded.

Untrimmed Hedges. So far, the discussion has dealt primarily with the trimmed hedge but there is an urgent need in many places for hedges that are not trimmed. Many homes need something to make a definite boundary at one side or the back of the

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lawn. The space is often so limited that even small trees are not desirable; the untrimmed hedge is ideal for this. Roadsides, where there is a fence to keep the livestock in the field, can be beautified by the use of an untrimmed hedge that covers much of the bank and conceals the fence. Many farm entrances could use plantings of untrimmed hedges to lead up to the gate. Unsightly objects and unattractive views can be successfully screened by the untrimmed hedge. This hedge should be planted and cared for the same as recommended for the trimmed one, but care must be used in the selection of the material. Use only tall-growing kinds and the space will determine whether they should be upright or spreading.



Dwarf broadleaf semi-evergreen Euonymus patens around uncovered porch at the back of house.

Description of Materials. Broadleaf Fragrant Honeysuckle, Lonicera fragrantissima, sometimes called the Winter Honeysuckle, holds its leaves thru most of the winter, seldom suffers from winter injury and is adaptable to most types of soil. It has upright and spreading habit of growth with rather stiff, leathery leaves and produces small, creamy white flowers. This plant attains a height of eight to fifteen feet in good soil and a sunny location. It can be used for either a trimmed or untrimmed hedge.

Vanhoutte Spirea, Spiraea vanhouttei, has been used exten-

sively as a shrub for many years. During the past few years it has been used as a hedge plant, either trimmed or untrimmed. On account of the luxuriant white bloom that appears in April and May it is more satisfactory as an untrimmed hedge because much of the bloom is lost in shearing. Also, as an untrimmed hedge the natural beauty of the arching branches becomes more evident in both summer and winter. It grows five to six feet tall and tolerates partial shade.

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Mock Orange, *Philadelphus coronarius*, is upright and dense, and grows nine to eighteen feet tall. It is seldom used as a trimmed hedge but is excellent for an untrimmed hedge where there is sufficient room for its development. A sunny location and reasonably fertile soil are required for its best growth. The blooms are creamy white, appearing in May.

Virginal Mock Orange, *Philadelphus virginalis*, is similar to coronarious in habit of growth. It attains a height of eight to twelve feet, has beautiful white flowers that are slightly fragrant and remains in bloom for several weeks. It is best used as an untrimmed hedge on account of its habit of growth and bloom.

Japanese Barberry, *Berberis thunbergii*, grows four to five feet tall and makes a dense, thorny hedge. The red stems, shiny red berries and colored leaves combine to produce an attractive color effect. Many of the berries hang on the branches until late spring, giving it unusual winter interest. It can be used either as a trimmed or untrimmed hedge and it will endure partial shade and adverse soil conditions.

Flowering Quince, Chaenomeles lagenaria, has never been used extensively in Kentucky, as a hedge. The branches are thorny and it has an upright form of growth. The pinkish red flowers in March and April are produced, for the most part, from lateral buds on the stems. On account of this the plants flower profusely, even when used in a trimmed hedge. The plant grows four to six feet tall and is adaptable to most types of soil but is subject to scale and blight.

Winged Euonymus, *Euonymus alata*, grows six to ten feet tall. It has an upright form of growth with dense horizontal branches and small twigs with corky ridges. The leaves are small and color a striking rose pink or crimson in the fall. The plant makes a good trimmed hedge and should be used more.

Snowhill Hydrangea, Hydrangea arborescens grandiflora, should be used only as an untrimmed hedge on account of the bloom. It

grows three to four feet tall and should not be used where a permanent, year round boundary is to be made by the hedge, as the plants should be pruned severely each spring to encourage the best flower production.

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Amur Privet, Ligustrum amurense. This privet grows eight to twelve feet tall, has an upright form of growth with sufficient lateral branches to give it a density that makes it one of the best tall-growing privets. It produces creamy-white, fragrant flowers, followed by small, green fruits that turn dark purple. This privet is subject to some winter injury in extreme weather but the plants usually outgrow the injury during the following season. It can be used as either a trimmed or untrimmed hedge, withstands partial shade, and is adaptable to most types of soil.



Trimmed evergreen Hemlock enclosing a formal area.

Chinese Privet, Ligustrum sinense, is being used to supplant the California. This Privet has small leaves and good branching with an abundance of laterals that make it excellent for a trimmed hedge up to five or six feet in height. It is subject to some injury during severe winters but seldom suffers any root injury and the tops grow back quickly.

Ibolium Privet, Ligustrum ibolium. This privet is a hybrid

developed by crossing California and obtusifolium. The leaves are slightly larger than the California and they drop earlier in the winter; however, the plant withstands lower temperature than the parent California. It grows five to six feet high and makes an excellent plant for either a trimmed or untrimmed hedge. It seems destined to supplant much of the California Privet on account of its ability to withstand lower temperature.

Regel's Privet, Ligustrum obtusifolium Regelianum, is a dense growing plant that attains a height of five to six feet. It has creamywhite flowers and fruits that are more pronounced than those found on the amurense, and the horizontal branches and leaves have a tendency to droop making it one of the most interesting of all the privets. The plant can be used for either a trimmed or untrimmed hedge but is much more attractive when left unpruned. It

is hardy and withstands adverse soil.

California Privet, *Ligustrum ovalifolium*, grows four to six feet high and produces a dense, compact hedge. The leaves are shiny green and stay on the plant most of the winter. This is an excellent plant for a trimmed hedge but often is killed to the ground during severe winters. On account of this it is not being used as much as it was formerly.

Hugonis Rose, *Rosa hugonis*, grows five to six feet high and has single, yellow roses borne laterally on the slender lateral branches. It blooms about the same time as the tulips. The foliage is dense, the growth upright and it makes a good untrimmed hedge. This

plant will grow in most any type of soil.

Highbush Cranberry, *Viburnum opulus*, is a tall-growing plant, eight to twelve feet, that is seldom used for hedge, tho it makes an excellent untrimmed hedge. Its habit of growth is upright and spreading and the clusters of bright-red fruits make it especially attractive in the late summer and fall. It prefers a sunny location and good soil.

Hemlock, Tusga canadensis, is one of the best of the evergreens to use for hedge. As a trimmed hedge it has few equals; as an untrimmed hedge it is very attractive. It can be used in the trimmed form up to fifteen feet in height; untrimmed to twenty feet. It withstands adverse soil conditions and retains its beauty all year.

Japanese Spreading Yew, *Taxus cuspidata*, is another good evergreen for hedge up to four feet in height. While it has a spreading habit of growth, it can be sheared to make a dense hedge.

Upright Japanese Yew, Taxus cuspidata capitata, makes an ex-

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cellent hedge up to five or six feet. It is good either in the trimmed or untrimmed form. This has not been used much for hedge up to the present time on account of the high price, but these plants are getting cheaper as the supply increases.

Norway Spruce, *Picea excelsa*, is seldom used for hedge tho if pruned rather severely in the top and fed and mulched to keep the bottom dense, it makes an excellent hedge. It should be used only on good soil and its height for hedge is under twelve feet.



Trimmed Chinese Privet as a border along walk and drive.

White Pine, *Pinus strobus*, is not used as much as it should be for hedge. When well located and properly pruned, it is beautiful in hedge up to ten or twelve feet. Requires sun and a soil that is fertile but not too wet.

Pfitzer's Spreading Juniper, Juniperus chinensis pfitzeriana, is low growing and when used in hedge is not good for over three feet. It is not as good as some of the others already mentioned.

Dwarf *Eunonymus patens* is a low-growing semi-evergreen that is sometimes used where a low, irregular hedge is desired. It does not lend itself to shearing and should not be used when a hedge over 18 inches is wanted. These plants are hardy, enduring a rather poor soil and some shade.

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