Espaliers for Connecticut

By Edwin D. Carpenter, Extension Consumer Horticulturist and Professor of Ornamental Horticulture

Espaliering is the art of training a plant to a predetermined shape or form by controlling the direction of branch growth. The word "espalier" is a French word meaning shoulder or support. It came into the English language during the 17th century and originally referred to the trellis or frame upon which a plant was trained. Today, there are two meanings given to the word, both of which are in common usage. The first use of the word describes any tree or shrub trained in flat plane—with height and width, but almost no depth. The second connotation of espalier refers to the technique of training a plant in a flat plane.

Among the first people to practice the art of espaliering were the Romans, who trained fruit trees against their villa walls. Later, the practice was adopted by gardeners in Central Europe and England, where it developed into a fine garden art, primarily for training fruit trees. In early times espaliers were developed to increase fruit production in a limited space and to capture the heat absorbed by the brick or stone walls in order to get ripe fruit. Of course, under today's rules, any plant—with or without fruit—is fair game for espaliering.
Uses in the Landscape

In the past, espaliers have not often been considered an element of landscaping in the United States. However, interest in espaliers is increasing mainly because they are so well suited to small garden situations. When espaliers were moved out of the orchard and into the garden, gardeners espaliered plants for new uses that were only practical for a limited range of plants.

Espaliered plants are used to cover large expanses of unadorned wall space; to use a minimum of ground space, important with today's small properties; provide a background for annuals, perennials, vegetables, paved areas and other garden structures; to grow on low fences or walls; to give privacy screens; to provide patio or terrace focal points and sculptural elements; to extend the length of a building to give it a longer, more pleasant effect; to serve as container grown plants; and to bring out some outstanding plant characteristic such as bark color or texture, leaf shape or texture, flower or fruit.

For the container gardener, espaliers offer an interesting method of decorating a patio, terrace or other areas where a different plant form is wanted. While the plants are in flower or fruit, they can be wheeled out to occupy an important place. When the show is over, they can be placed in another part of the garden for the remainder of the season or year.

Patterns

When an espalier is being considered, it should be looked upon as a sculptural feature of the garden. Thus, it is important to consider the design that best fits the location, which plants are best suited to that design, and how the natural habit of growth and ultimate size of the plant fits into this pattern. As with choosing any plant for the landscape, the plant must harmonize with its surroundings. Therefore, scale becomes extremely important.

There are two basic pattern forms of espaliers—formal and informal. The formal espalier is trained to a predetermined pattern, such as a candelabrum, and then maintained in the pattern. Branches are bent to conform to that pattern and tied in place. All excess foliage and branches are removed. The informal, on the other hand, is the casual or "free-form" pattern. In reality, they are nothing more than plants allowed to grow as they will, or with some training, to provide some resemblance of shape. While the informal pattern may be one of the more interesting and decorative, it is not a formal pattern that has been allowed to go unpruned and grow out-of-bounds.

When looking for plants to develop into informal espaliers, especially look for those having interesting trunks, branch characteristics or twig features. Often a stunted or mishapen plant makes a more striking espalier. Finally, choose a plant that does not require as much care as formal patterns require. However, remember that informal patterns still need some care and must not be neglected.

There are numerous methods of training trees and shrubs on walls. Formal and informal patterns are named and described below.

Cordons (Fig. 1): These patterns may be vertical, oblique, or horizontal. The simplest form is the single cordon: that is, one stem. Double horizontal and vertical cordons are also frequently used. The double horizontal cordon is generally not developed further. The vertical U-shape, double U-shape, and triple U-shape are variations of the double cordon.

Palmette Verrier (Fig. 2): Essentially a 3-layer cordon with the branches trained into a candelabrum.

Palmette Oblique (Fig. 2): A pattern which may be trained low and broad or tall and narrow. It is relatively easy, once this pattern is set, to adapt the palmette verrier or horizontal-T patterns from it.

Horizontal-T (Fig. 2): Simply a multihorizontal cordon pattern well adapted for screening purposes or against large wall areas. This pattern is an excellent one for container grown plants.

Gridiron (Fig. 2): Another variation of the single horizontal cordon formed by training 6 branches parallel to each other and perpendicular to the single horizontal cordon. While especially useful for fruit trees, it is adapted to any ornamental trained in a single horizontal cordon.

Belgian Fence (Fig. 2): Still another variation of the single horizontal cordon. However, the branches are trained in opposite 45-degree angles, forming a broad V-shape. Plants may be planted singly, or, as is more frequently done, in a row which forms a lattice-work pattern.

Losange (Fig. 2): A variation of the Belgian Fence in which side branches are allowed to develop at spaced intervals along the main scaffold branches. This pattern usually gains greater height and density in a shorter period of time.
1. Single Cordon-Vertical
2. Single Cordon-Oblique
3. Double Horizontal
4. Single Horizontal
5. U-Shaped Vertical Cordon
6. Double U-Shaped Vertical Cordon
7. Triple U-Shaped Vertical Cordon
Braided Trees

Arcure Method

Braided Trees

Free Form

Formal Fan

Informal Fan
Planting and Starting Espaliers

Some nurseries and garden centers have available plants already started as espaliers. Fruit trees and some ornamental shrubs or trees can be found which are started on frameworks. However, do not be discouraged if you cannot find nursery-trained espaliers. If you must start with an untrained, young plant, there is only a few years delay while the plant is trained under your guidance. The alternative is to do some serious looking for misformed, one-sided plants that can be judiciously pruned to fit your needs. Well-developed specimen plants are not the most desirable plants since height and width, not depth, is wanted.

Any plant needs some special care when transplanted, but espaliers require some extra attention. As a general rule, the planting hole should be three times the diameter of the root ball on the plant and no deeper than vertical measurement of the root ball. The hole must be large enough so the plant roots spread out freely. Discard the poor soil and replace with a mixture of four (4) parts of garden loam and one (1) part humus (i.e., leafmold or moist peat moss). It is also wise to add some bonemeal or mild organic fertilizer and mix in well. Avoid strong nitrogen fertilizers. Place the ball of soil and roots in the hole without breaking the soil ball. Remove the burlap from the root ball completely before backfilling the hole. Container plants should be removed from the container before placing in the hole. After backfilling with soil, water thoroughly.

Espaliering is not the easiest training method. However, it is not as difficult as developing a bonsai plant. It does require patience and some knowledge of pruning (see Extension bulletin 68-26, Pruning; cost $0.25).

Horizontal cordons are perhaps the easiest for the beginner. Purchase a young whip (a single stem without major branching) and plant it 6 to 12 inches from the support. If a single cordon is desired, cut the whip off at the height you want the cordon to form. This is usually 12 to 20 inches above the ground. Wait for new shoots to form. Prune all branches off except the two you want to form the cordon with. Keep in mind that they will be trained flat against the support, horizontal to the ground, and will be in opposite directions to each other. If a double cordon is desired, select the three best new shoots; one for the vertical and two for the horizontal cordons. When the center branch reaches the height desired; cut the top off and train as for the horizontal cordon. No other branches are retained unless a third horizontal cordon is wanted.

U-shaped cordons are simple variations of the horizontal cordon. When the two horizontal branches have been selected, allow them to attain about 10 inches in length and then carefully bend into a vertical position. Tie firmly to a lath or bamboo strip. Double and triple U-cordons are further developments of the single U-cordon. The two verticals of the single-U cordon are cut back to the height the new U-shapes are wanted to form.

The palmette verrier, palmette oblique and horizontal-T forms are basically variations of the horizontal cordon. The central branch is allowed to grow vertically until the number of horizontal or oblique branches have developed. Then it is cut out. This central leader should not be allowed to remain after the pattern is complete since it develops too rapidly and may ruin the basic design.

The gridiron system is essentially a single horizontal cordon. The two side branches are allowed to grow until they reach about 36 inches and then the tips are bent to a vertical position and tied. Two branches are allowed to develop about every 12 inches into vertical arms. The horizontal cordon can be allowed to grow longer if more verticals are desired. To further complicate the design, horizontal branches can be allowed to grow from each vertical. To maintain the gridiron system in a set pattern, prune the branches to the desired height each winter, or after flowering in late spring or early summer.

The Belgian Fence is started by planting whips against the support, spacing them 18 to 24 inches apart. It takes at least 5 plants to make an effective pattern. Cut the whips back to about 18 inches tall. Remove all but two of the new shoots; when they grow, train at a 45-degree angle in opposite directions. They will, thus, produce the diamond-shaped effect. All undesirable side branches are removed as they develop.
Method (Fig. 3): A third type of espalier fence in which the branches are in curving arcs. A good pattern for fruit trees and ornamentals such as forsythia.

 raiding (Fig. 3): An unusual method where two whips are planted close together and then braided as they grow upward.

 an (Fig. 3): Most frequently a free-form or informal pattern. However, it becomes formal when it is trained as spokes of a wheel.

There is no particular pattern for informal espaliers. The only thing to remember is that these espaliers usually do not need the support structure needed for formal designs and you can let your imagination be your guide. The two patterns most frequently seen are the free-form and fan (Fig. 3).

Supports

All espaliers trained into formal designs need a frame-work of some sort on which to train and support the branches. In a few cases, the free-form informal designs will also need some support. The supports, to be mentioned below, are usually laced into position before the shrub or tree or vine is planted. The size of the support is then determined by the expected eight and spread of the espalier at maturity.

ree-standing supports: used to screen one area from another. They may be as simple as using existing (or specially installed) hain-link fences. They might be of wood or turkey wire also. Whatever the construction, they consist of sturdy terminal posts (usually 2 x 4 or 4 x 4's) with the wire stretched taut. Of course, 1½-inch metal pipes can also be used. Place the posts to 10 feet apart, depending on the distance to be covered, espalier pattern, and the kind of plant to be supported. The first horizontal wire is usually placed 12 to 16 inches above round level. Others are spaced above this wire at regular intervals as needed. Use 10-gauge galvanized or copper wire, or /16 inch vinyl-covered tiller cable. Place a turnbuckle at one end so the wire can be kept taut. They are also important in keeping the frame-work exactly horizontal or vertical in cases where the espalier requires right angles.

Once this basic support is in place, horizontal, vertical, or oblique supports can be added to hold the branches in place. Quarter-to half-inch bamboo garden stakes are excellent for this purpose.

Wall Supports: These are supports similar to those used for vines (see Vines for Connecticut, Extension publication 87-24, revised 1987). However, they must be of heavier construction, since the plants are larger and heavier.

The first rule is to place the support at least 6 inches away from the wall. This facilitates pruning, tying, air circulation, pest control and building or wall maintenance. Any of the free-standing supports may be placed next to a solid wall, but if the wall is of suitable material they can be fastened directly to it. The result is a support that is usually more sturdy, and an inconspicuous frame for less labor and expense.

Wooden frames are perhaps better suited since they can be hinged at the bottom and hooked at the top. Fastenings of this kind make it much easier to lower the plant when it needs to be sprayed or the wall needs maintenance.

Container Supports: For container espaliers, small strips of redwood, wire or bamboo are ideal. The base should be installed several inches into the soil. If the espalier is large, and especially in windy locations, it may be necessary to fasten the frame to the container with wire or small nails.

Although any pattern is possible to use with container plants, the horizontal-T may be the easiest to use as it requires only one or two vertical supports. Horizontal wires or wood strips are then fastened at the appropriate intervals. Formal or informal fans are also easy patterns for container plants.

Informal Espalier Supports: Informal espaliers need support at strategic points to keep them flat against the wall or to allow a pleasing design. This can be done by sinking a piece of heavy-gauge aluminum wire in the ground behind the plant and then bending the wire to the desired pattern. Branches are then tied to the wire as the plant grows. Another simple method is to use vine guides available at most garden supply stores. These guides are fastened, usually by glue, to the wall surface and the branches fastened to them. However, these vine guides are best used with small shrubby espaliered plants, not the large tree-forms.
The losange is a variation of the Belgian Fence and started in the same manner. Once the two main branches have been formed in a 45-degree V, two or more side laterals are allowed to form on them. Spacing of these laterals is determined by the individual plant. Always leave enough room so that the design created by branches and leaves allows sufficient open space to set off the pattern.

The arcure method is started by planting whips about 3 feet apart in late winter or early spring. Plant the whips so they lean at a slight angle to the right. After a few weeks, each is formed into a half-circle and tied to the support. All developing branches are removed except for the one at the top of the curve. By the end of the summer this branch can be carefully bent in a curve in the opposite direction (left). This procedure is repeated as many years as necessary to achieve the pattern.

Braided patterns are started by planting whips as closely together as the gardener desires. The bent trunks are allowed to form the first horizontal cordon. Successively, the verticals are braided, with side shoots encouraged to develop to form horizontal cordons where desired.

Informal espalier patterns more or less happen. It is difficult to give precise starting directions since the shape is determined almost entirely by the plant or gardener. The objective in training an informal espalier is to develop a flattened plant with a free-form style, and sufficiently open to allow the color and texture of the wall to show. The informal espalier is more likely to develop from a more mature plant than are the formal patterns. When working with plants of this size, first cut off branches that stick out from the wall. Then remove branches that cross each other, as well as any which develop as verticals near the top. The framework of an informal espalier can usually be developed in the first pruning.

Informal fan espaliers can be developed from any tree or shrub which tends to be multistemmed from a very low trunk or from the ground. A fountain shaped informal espalier may be shaped similarly to the fan, except that several branches are allowed to rise vertically. These branches should originate at about the same point on the trunk. They are allowed to gradually spread until they begin to cascade into a flattened fountain or weeping shape. A third informal espalier is the modified Hogarth curve. This shape is much like the fountain but with wider arching branches.

Training and Health

The training of espaliers is largely accomplished by frequent pruning and tying. However, fertilization and pest control are also important aspects of culture.

Pruning: The pruning of espaliers requires a light touch. Therefore, a sharp pruning knife and pair of hand shears are all that is needed. Avoid heavy-handed pruning as it destroys the plant's form and may encourage too much growth.

Heavy pruning, when it is required, should be done while the plant is dormant and before new growth develops in the spring. On flowering plants, where flower production must be considered, do this kind of pruning immediately after flowering, but before July.

All plants, except very slow-growing ones, require light pruning every 3 to 4 weeks during their active growth period. This usually consists of pinching, or cutting, off small undeveloped branches to maintain the desired pattern. If one or two light prunings are missed, no serious harm results since the excess growth can be removed by a slightly heavier pruning later in the late fall or winter.

In all cases, observe the proper pruning method. Do not leave short stubs devoid of buds or foliage. Needle evergreens should be pruned when the branches are small so that healing occurs quickly. Since branch direction is determined by the direction the top bud is pointing, leave the top bud so it faces the direction you want the new growth to go.

As a rule, root pruning is not ordinarily needed or practiced on espaliers. It may be a useful procedure when the plant is inclined to grow larger than is desirable for the location. It may also be necessary to force a stubborn plant to flower. Root pruning should be done in the spring with a long, thin-bladed garden spade. Insert the blade to its full depth in a circle around the trunk. The distance from the trunk depends upon the size of the specimen but is generally 3 to 4 feet out from the trunk.
Espaliered fruit trees can be used in the landscape in much the same manner as ornamental woody plants. That is on fences or walls, to form a living fence, to form an arbor, to feature a patio or terrace, or to put in a container. In addition, they give the grower a utilitarian aspect of producing his own fruit.

Most of the patterns already described can be used to develop espaliered fruit trees. Apples and pears are easily adapted to the cordon (all), gridiron, Belgian Fence or arcurc methods. Plums, nectarines, peaches, and cherries are best trained in formal or informal fan-shapes. Small fruits like red and white currants may be trained in either the cordon, Belgian Fence, gridiron or arcurc methods. Gooseberries do best in cordons or fans. Raspberries, blackberries and logan berries are usually trained into fans while grapes do best in cordons or upright informal patterns.

In selecting fruit trees for espaliering, it is usually best to get one that has been grafted onto dwarf rootstock. This dwarf rootstock produces the controlled growth necessary to the success of espaliering. Apples grafted onto the dwarf rootstock Malling IX are the most dwarfed and best. However, rootstocks of Malling II and VII are common and semi-dwarf. Pears should be obtained on Anger Quince dwarfing rootstock; peaches, nectarines and plums obtained on
Western Sand Cherry of Manchu Cherry dwarfing stock. Cherries are usually on Mahaleb rootstocks but the dwarfing is not as marked as in other fruits. Dwarf fruit trees are best for container espalier purposes. Use a 3 to 5 gallon container for several years and then switch to a larger container.

When selecting fruit trees, give consideration to pollination. Many varieties of apples and pears are self-sterile. That is, no fruit or a small crop will be produced unless a second variety which flowers at the same time is present to pollinate the first variety. Peaches and sour cherries do not require a second variety present, but usually fruit better when more than one variety is planted. If you have room for only one fruit espalier, be sure to get a self-pollinating variety.

Standard and semi-dwarf fruit trees can also be used for espaliers. However, they grow faster and larger, requiring more training and maintenance to keep them in the desired pattern.

When selecting a location for espaliered fruit trees, remember they need a minimum of 6 hours of sunlight to produce good fruit. Soils need to be well-drained. They should not be planted against light colored walls where reflection can damage fruit, foliage and stems. An eastern or western exposure is preferred where there are no frost pockets.

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Plant Selection

The kinds of plants useable as espaliers is virtually unlimited. An extremely large variety of trees, shrubs and vines, both evergreen and deciduous, can be easily espaliered. Of course, one must consider the plant's hardiness, adaptation to soil, location requirements and maintenance required. However, consideration must also be given to the plants, adaption to training, growth rate, degree of suckering caused by frequent and severe pruning, foliage texture, and ornamental effects such as bark, flowers or fruit.

Plants included in the following lists are ones which have been used for a long period of time for espaliers. This does not mean that others could not be used. However, extremely fast-growing plants should be avoided as they require a great deal more pruning to keep in a specified pattern. Likewise, coarse-textured, in terms of foliage, plants do not lend themselves to espaliers as well as finer-textured plants. Descriptions of most of the following plants may be obtained in Vines for Connecticut (87-24, revised 1987), Contemporary Ground Covers (87-33, revised 1987), and Trees and Shrubs for Connecticut (87-32, revised 1987), as well as many gardening books.
Plant Lists

For Shade:
Chaenomelas speciosa — Flowering Quince
Cornus mas — Cornelian Cherry
Euonymus alatus — Winged Euonymus
Ilex crenata — Japanese Holly and cultivars
Laburnum watereri — Waters Goldenchain
Pyracantha coccinea 'Lalandei' — Firethorn
Taxus cuspidata 'Nana' — Dwarf Japanese Yew
Viburnum plicatum — Japanese Snowball

For Sun:
Cercis canadensis 'Alba' — White Redbud
Chaenomeles speciosa — Flowering Quince
Cornus kousa — Japanese Dogwood
Cotoneaster horizontalis — Rock Cotoneaster
Euonymus alatus — Winged Euonymus
Forsythia species — Forsythia
Magnolia soulangeana — Saucer Magnolia
Magnolia stellata — Star Magnolia
Malus 'Red Jade' — Red Jade Crabapple
Pinus aristata — Bristlecone Pine
Stewartia koreana — Korean Stewartia
Taxus species — Yew
Viburnum sieboldi — Siebold Viburnum

For Seashore Gardens:
Acer palmatum — Japanese Maple and cultivars
Cedrus atlantica 'Glauc'a' — Blue Atlas Cedar
Cotoneaster franchetii — Franchet Cotoneaster
Cotoneaster horizontalis — Rock Cotoneaster
Ilex crenata — Japanese Holly and cultivars
Juniperus horizontalis 'Plumosa' — Andorra Juniper
Prunus serrulata — Oriental Cherry and cultivars
Tamarix pentandra — Five-stamen Tamarix
Taxus media 'Hicksi' — Hicks Yew

For City Gardens:
Cercis chinensis — Chinese Redbud
Euonymus alatus — Winged Euonymus
Forsythia species — Forsythia
Ilex crenata — Japanese Holly and cultivars
Pinus aristata — Bristlecone Pine
Pinus parviflora 'Glauc'a' — Japanese White Pine
Taxus species — Yew
Viburnum plicatum — Japanese Snowball

For Containers:
Acer palmatum — Japanese Maple and cultivars
Juniperus chinensis sargenti — Sargent Juniper
Laburnum watereri — Water Goldenchain
Magnolia stellata — Star Magnolia
Malus 'Dorothea' — Dorothea Crabapple
Malus 'Red Jade' — Red Jade Crabapple
Prunus serrulata — Oriental Cherry and cultivars
Prunus subhirtella 'Pendula' — Weeping Higan Cherry
Pyracantha coccinea 'Lalandei' — Firethorn

For Spring Flowers:
Chaenomeles speciosa — Flowering Quince
Cornus mas — Cornelian Cherry
Forsythia species — Forsythia
Prunus serrulata — Oriental Cherry and cultivars
Prunus subhirtella 'Pendula' — Weeping Higan Cherry

For Summer Flowers:
Cornus kousa — Japanese Dogwood
Philadelphus species — Mock Orange
Stewartia koreana — Korean Stewartia
Tamarix pentandra — Five-stamen Tamarix
Viburnum lentago — Nannyberry
Viburnum sieboldi — Siebold Viburnum

For Fruit Affect:
Cotoneaster divaricata — Spreading Cotoneaster
Cotoneaster franchetii — Franchet Cotoneaster
Cotoneaster horizontalis — Rock Cotoneaster
Malus 'Dorothea' — Dorothea Crabapple
Malus 'Red Jade' — Red Jade Crabapple
Poncirus trifoliata — Hardy Orange
Pyracantha coccinea 'Lalandei' — Firethorn
Taxus species — Yew
Viburnum species — Viburnum

Attractive Summer Foliage:
Acer palmatum — Japanese Maple and cultivars
Cotoneaster divaricata — Spreading Cotoneaster
Cotoneaster franchetii — Franchet Cotoneaster
Cotoneaster horizontalis — Rock Cotoneaster
Cotoneaster salicifolia 'Floccosa' — Willow-leaved Cotoneaster
Ilex crenata — Japanese Holly and cultivars
Juniperus chinensis — Chinese Juniper and cultivars
Juniper horizontalis ‘Plumosa’ — Andorra Juniper
Magnolia stellata — Star Magnolia
Pinus parviflora ‘Glaucan’ — Japanese White Pine
Viburnum plicatum — Japanese Snowball

For Autumn Foliage:
Acer palmatum — Japanese Maple and cultivars
Cornus kousa — Japanese Dogwood
Cotoneaster divaricata — Spreading Cotoneaster
Euonymus alatus — Winged Euonymus
Prunus serrulata — Oriental Cherry and cultivars
Stewartia koreana — Korean Stewartia
Viburnum dentatum — Arrowwood

Ground Covers:
Arctostaphylos uva-ursi — Bearberry
Euonymus fortunei — Wintercreeper and cultivars
Forsythia ‘Arnold Dwarf’ — Arnold’s Dwarf Forsythia
Hedera helix — English Ivy
Juniperus horizontalis — Creeping Juniper and cultivars
Rhus aromatica — Fragrant Sumac
Rosa wichuraiana — Memorial Rose

Vines:
Celastrus species — Bittersweet
Euonymus fortunei — Wintercreeper and cultivars
Hydrangea anomala petiolaris — Climbing Hydrangea
Rosa species — Climbers and dwarf shrubs
Wisteria floribunda — Japanese Wisteria

Trees:
Acer palmatum — Japanese Maple
Cornus florida — Flowering Dogwood

Cornus kousa — Japanese Dogwood
Cornus mas — Cornelian Cherry
Ilex opaca — American Holly
Juniperus species — Juniper
Laburnum species — Goldenchain
Malus species — Crabapples
Pinus species — Pine
Prunus serrulata — Oriental Cherry and cultivars
Prunus subhirtella ‘Pendula’ — Weeping Higan Cherry
Stewartia species — Stewartia

For One-Story Buildings:
Acer palmatum — Japanese Maple
Cercis canadensis ‘Alba’ — White Redbud
Cotoneaster divaricata — Spreading Cotoneaster
Cotoneaster horizontalis — Rock Cotoneaster
Ilex crenata — Japanese Holly and cultivars
Juniperus species — Juniper
Magnolia stellata — Star Magnolia
Pinus aristata — Bristlecone Pine
Pyracantha coccinea ‘Lalandei’ — Firethorn
Taxus species — Yew
Viburnum species — Viburnum

For Multi-Story Buildings:
Cedrus atlantica ‘Glaucan’ — Blue Atlas Cedar
Cercis canadensis — Redbud
Cornus kousa — Japanese Dogwood
Cornus mas — Cornelian Cherry
Forsythia species — Forsythia
Ilex crenata — Japanese Holly and cultivars
Laburnum watereri — Water Golden chain
Malus species — Crabapple
Pinus parviflora ‘Glaucan’ — Japanese White Pine
Prunus serrulata — Oriental Cherry and cultivars
Taxus species — Yew
Viburnum species — Viburnum

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<td>Waterbury, CT 06710</td>
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<tr>
<td>Tel: 755-4840</td>
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</tbody>
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*also EFNEP office