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How to Beautify Your Home Grounds

NEOSHO NURSERIES CO., NEOSHO, MO.

Isn't This Yard Attractive and Inviting?

The enjoyment of your back yard will be greatly increased by a "natural" combination of the useful and the ornamental.

"The shade trees and shrubs of this country are valued at \$1,000,000,000 on a very conservative estimate. They represent a form of wealth which people realize in health, recreation, enjoyment of the home and the increased value of the property."

—U. S. Dept. of Agriculture, *Weekly News Letter*, October 27, 1920.

FOREWORD

Many people hesitate to beautify their home surroundings because they have had little or no experience with ornamental trees and plants, or they may not realize with what little expense and trouble their property can be made more attractive and more valuable. Others who have made the effort are disappointed with their results, become discouraged, and even blame the nurseryman, when all they needed was reliable information on planting and care of their trees and plants.

This little book is designed to show the principles which govern successful planning, planting, pruning, etc. For laying out extensive grounds, and for those who can afford it, we recommend the services of the experienced landscape architect.

Nature herself is the best landscape gardener. By imitating Nature, it is possible to make your place more beautiful. Her principles are followed in this book.

The best method is to plan your entire planting first. Your planting can then be carried out from year to year, according to your time and pocket-book.

In making your plans, don't overlook the ornamental value of such fruit trees as cherry, crabapple, and grapevines.

Neosho Nurseries Co.,

Neosho, Missouri

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THE RIGHT AND THE WRONG WAY

The planting of shrubs and trees about the home should have a meaning. Everything should be so arranged as to make the home the center of the picture. The lawn should be open and should not have meaningless trees and bushes scattered promiscuously over it. The right style of planting makes a landscape, even though the area be no larger than a parlor. The other style is

simply a collection of curious plants. The one has an instant and lasting pictorial effect which is restful and satisfying. The observer exclaims, "What a beautiful home!" The other piques one's curiosity, obscures the residence, defies and distracts the attention. The observer exclaims, "What beautiful lilac bushes!"—*Adapted from L. H. Bailey's Bulletin on Suggestions for Home Planting.*

Lawn View and Shrubbery Planting

THE RIGHT WAY

The result is truly beautiful, natural, and harmonious. It looks as if it "just happened"—but it didn't; it took careful planning. The numerous large trees form a background for the house and lawn, and give the appearance of distance and extent. The veteran on the left, standing guard at the entrance of the home, shows how trees may also be planted close in—but note that the wide lawn is not disfigured by scattering "shoe-button" shrubs all over it. The only shrubs on the lawn are two just at the right of the walk, placed there so that a slight curve in the walk can be made around them, breaking what would have been a straight, stiff line to the porch. The walk then curves gracefully to the right along the rising

slope, getting close to the shrubbery border.

Note how the low-growing Rugosas, Barberries and Deutzias are planted at the outer edge of the mass of shrubbery, then the high-growing Syringas and Snowballs farther back.

Effective masses of Spirea Van Houttei and Hydrangea are placed at the corners and near the foundation, making the house look as if it "belongs there." The touch of Boston Ivy on the brick-work to the right of the porch is good, as is also the climbing Rose at the corner of the porch. Of all the shrubs, vines, and trees, not one stands out like a museum specimen on exhibition. They all blend together and form a part of the home picture which becomes dearer and more beautiful each year.

Lawn Poorly Planted

THE WRONG WAY

Everything is neat, but stiff; well kept, but poorly planned. The mass of shrubbery at the right of the door is overgrown and appears out of place. The round flower-bed and

formal "shoe-button" shrubs spoil the unity of the planting. Each plant does not do its part to make a complete and beautiful picture. The vine on the porch is the one attractive feature.

The Right Way

The natural way of planting in masses to form a picture.

The Wrong Way

The unattractive way of scattering shrubs all over the lawn.

The Shrubbery Masses in the Above Picture Are Exceptionally Good.

SHRUBBERY MASSES

Pleasing results in groups of shrubs do not come from large numbers of the same variety in a single mass, but from harmonious arrangement of different varieties. Each group or plantation should have an excuse for existence, a reason for occupying that particular spot. If there are unsightly rear views, plantations in groups or belts should be provided in order to hide them. If a portion of the ground is to be used for a garden or a stable, planting should be made so as to shut these areas from view effectively. Groups of shrubs are also used to fill in the grooves of walks and drives and the corners, arranged according to form and size. In grouping shrubs, those with a tall, upright habit of growth should occupy a rear or central location, to form general barriers, against which the lower-growing sorts may be arranged in regular gradation.

Plant the low-growing, drooping shrubs near the outer edge. Avoid exposing bare stalks of shrubs in the group. Low-growing, dense foliage plants are as essential to a successful group or border as are the tall-growing sorts. Nature's way is the safest guide.

In all planting the aim should be to conceal the hand of the gardener as much as possible. In small, formal places with straight walks and hedges, the gardener's shears must be used frequently, but always with the idea of producing harmony and symmetry without materially altering the natural growth of the plants.

The arrangement of groups of shrubs on page 5 is adapted from a Government Bulletin by L. I. Corbet. It is desirable to combine in each group as much of interest as possible without making it heavy and unattractive.

DETAIL OF SHRUBBERY GROUPS SHOWN ABOVE

Group A—F, 3 Golden Bell (May); S, 3 Lilac, Common Purple (May); V, 2 Snowball (June); SP, 3 Spirea V. H. (June); A, 4 Althea (July to September); H, 4 Hydrangea P. G. (July to September).

Group B—D, 2 Deutzia, P. of R. (June); F, 3 Golden Bell (May); B, 2 Barberry, Japanese (May to December).

Group C—27 Roses in variety.

Group D—C, 3 Althea (July to September); P, 3 Syringa (May); S, 3 Lilac, Common Purple (May to June); PJ, 3 Japan Quince (April to May).

Group E—A, 6 Althea (July to September); B, 8 Barberry, Japanese; P, 10 California Privet.

Group F—F, 3 Golden Bell (April to May); H, 4 Hydrangea P. G. (August to September); PJ, 6 Japan Quince (April to May).

Group G—C, 3 Althea (July to September); P, 3 Syringa (May to June); S, 3 Lilac, Common Purple (May to June); PJ, 3 Japan Quince (April to May).

Group H—D, 2 Deutzia, P. of R. (June); F, 2 Golden Bell (April to May); B, 3 Barberry, Japanese.

Group I—F, 2 Golden Bell (April to May); S, 3 Lilac, Common Purple (May to June); V, 2 Snowball (May and June); SP, 3 Spirea V. H. (June); A, 4 Althea (July to September); H, 2 Hydrangea (August to September).

Group K—V, 3 Highbush Cranberry (May to July); S, 4 Lilac, Common Purple (May to June); C, 4 Althea (July to September); B, 9 Barberry, Japanese; P, 6 California Privet.

Group L—RT, 10 Common Dogwood.

Group M—P, 12 California Privet; S, 4 Lilac, Common Purple (May to June); F, 3 Golden Bell (April to May).

Group N—P, 14 California Privet; S, 4 Lilac, Common Purple (May to June); A, 2 Althea (July to September); B, 9 Barberry, Japanese.

THE ATTRACTIVE VERSUS THE UNATTRACTIVE

Trees should, as a rule, stand either as single specimens in isolated positions or in irregular groups, rather than in long rows. Under certain conditions long avenues of trees, regularly disposed on either side of a driveway or a vista, give a very pleasing and imposing effect to a large place. The general rule for trees also applies to shrubs, except that their use should be chiefly in groups or belts, rather than as specimen plants. Few

shrubs possess sufficiently graceful and characteristic habits of growth to make them pleasing when grown singly on the lawns, but where a number of specimens of varying habits are brought together in a single group, the differences are emphasized by contrast and the variety produces a pleasing effect. This is especially true if the rate and habit of growth, as well as the color and character of the foliage, are somewhat different.

The Wrong Way

The above shows the effect of having the shrubs and trees planted in straight lines and angles like the boundaries of the yard. It is stiff and unattractive.

Generally avoid planting in straight lines about the lawn. You will note that the most beautiful natural scenery is strikingly devoid of straight lines.

The boundary and building lines about the home lawn are usually

The Right Way

This shows how the proper planting relieves the stiffness of the yard and makes a more attractive setting for the house, at the same time giving an effect of greater extent.

straight. Therefore, to have the lawn as pleasing as possible, it is all the more necessary that the shrubs and trees be planted in irregular masses and groups to relieve the stiffness of the existing straight lines as much as possible.

In nearly every community there are unsightly, disreputable spots similar to the above. They impress visitors unfavorably and retard the growth and development of the town. The responsibility for such conditions lies with the owner, the mayor, and every other citizen.

This picture shows the great improvement which a little thought, time and effort has produced in the place shown above. Property-holders and business men, whose interests are most vitally affected, should not leave such improvements to the women's clubs and schools.

PLANTING AND CARE OF ORNAMENTALS

WHEN TO PLANT

Spring is the best time for planting in the northern half of the United States and in the arid Western States.

Fall planting has some advantages in other regions, but not sufficient to warrant postponement from spring to autumn. With low-growing shrubs and Roses, fall planting may be practiced satisfactorily farther north, if protection is provided during the winter by mounding the earth up over them and putting on a mulch. This should be raked off in the spring.

The Peony and Iris will reach full blooming strength sooner if planted in the fall. They should be mulched to prevent alternate freezing and thawing, which would heave the roots out of the ground. Fall and winter planting, without providing this protection, may be practiced successfully in Maryland, Delaware, the Virginias, Kentucky; southern parts of Ohio, Indiana, Missouri; all states to the south; eastern part of Oklahoma; Texas and the Pacific Slope, where there are winter rains.

ORNAMENTAL TREES

Trees are planted for shade, as a background; to mark borders and form part of the boundary planting; as sides or frames to distant views; as windbreaks or shelter breaks; for their beauty or interest.

A good background for the house is essential. They should be set well back of the house line. The Elm, Sugar Maple, Red Oak (*Quercus rubra*) and Tulip Poplar (*Liriodendron tulipifera*) are good for this purpose.

To frame the house, trees should be planted at each end, usually somewhat forward of the front line. Only one tree at each end for a small house. Grouping of trees is much better than lines of trees along curved driveway and path.

Houses set close to the ground need only group plantings at the corners. Where floor line is a little above the ground shrubs like the following are good for base plantings: Snow Garland, Crimson Spirea, Japanese Barberry, *Deutzia Lemoinei*. If larger growing plants are needed close to the house the following are

A Carefully Laid-Out Planting.

especially desirable: Spirea Van Houttei, Globe Flower, the Hydrangeas A. S. and P. G.

For straight driveways American Elm and Sugar Maple are desirable, planted alternately on either side, at least 35 feet apart and 5 to 10 feet from the edge of the drive.

Dig the holes large enough to hold the roots without crowding, at least a foot wider than spread of roots and at least two feet deep. Make holes as large at bottom as at top. Avoid mounding dirt around the trunk, a slight depression is better. Tops should be reduced one-third at least when transplanted. Cut off broken and injured roots and shorten any that are extra long. Set the tree two inches deeper than it stood in the nursery. Fill in the hole with loose rich dirt, pressing it firmly about the roots. If the ground is dry, pour in several gallons of water before the last four or five inches of dirt are thrown in. After the water soaks in, fill the hole com-

pletely with loose dirt. Do not press down the wet dirt about the roots.

PRUNING. Cut out the smaller branches. Shorten the larger ones to four or five good buds. Sometimes the buds near the base of the branch are small and undeveloped and may not grow. Care should therefore be taken to leave several large, plump buds on each branch. Do not shorten any branches after the tree starts to grow.

The second year, after the tree has made a good growth, the kind of pruning depends on the results desired. Some trees, not planted as shade or road trees, should be kept with low-branching heads. For instance, the Bechtel Flowering Crab is naturally low-growing and the central leaders should be cut out.

On the other hand, the Maple, Elm, and other shade trees should keep the central leaders. As the tree gets older, the lower side branches should be cut off, giving room to pass under them. If the central leader is injured, a side branch can be trained to take its place.

Shade trees, like other plants, respond to care and attention. Water-

A Beautiful Border of Peonies.

ing during a hot, dry summer, and cultivation will foster their growth. They will give you shade much sooner if they are not neglected.

SHRUBS

Spade the ground deep.

Make the holes, prune the roots, and set out as directed under "Ornamental Trees," except that shrubs should be set no deeper than they stood in the nursery.

Keep the weeds out. Water often if the season is hot and dry. A mulch of leaves or straw will help to keep the roots moist and cool. During the first winter they should have a heavy mulch of leaves or coarse manure.

Pruning—At planting-time, cut the branches back one-half to two-thirds.

After the shrub is well established, cut out old, weakened canes and shorten those branches only that give the bush an unnatural appearance. It is often necessary also to remove branches on the inside—small weak shoots, which produce poor flowers and detract from the looks of the shrub.

Shrubs should not be sheared heavily. Hedges of Privet or Japan Quince are an exception.

Prune Hydrangeas and Altheas regularly each winter. They will then produce better flowers, as they blossom in late summer on new wood.

Deutzia, Spirea, Japan Quince, Philadelphus, and shrubs which flower on wood of the previous season's growth should not be pruned until June or July, after they are through blooming.

Planting Distance—This depends upon the purpose for which the shrub is used. As a general rule, the distance between shrubs in a mass should be one-third to one-half their height when grown. The distance varies with the size which the shrub will eventually attain.

As a rule, shrubs should not be planted in the shade. However, Barberry, Dogwood Siberian, High Bush Cranberry, Hydrangea, A. S., Snow-

ball, Snowberry, Syringa, Privet and Weigela will thrive in shady places.

LILAC

Dig the holes large enough to hold the roots without crowding. Cut off broken or damaged roots. Set the plant five to seven inches deeper than it stood in the nursery, but do not fill in the last five inches until the plant has made a good growth.

The Lilac requires little pruning at any time. Remove broken or uneven branches at planting-time only. The bloom is borne on one-year-old shoots. Remove the withered flowers. Cut out weak branches entirely just after blooming—do not cut them back. Otherwise, prune for form only. Remove all suckers.

For a hedge, set the plants one and a half to two feet apart. For growing flowers for the market, three feet apart in the rows, four to six feet wide.

HEDGES

There are two kinds of hedges—those with a dense, solid growth which may be kept sheared in a formal shape and make a good fence or barrier. They are cheaper and more attractive than iron or picket fences that require painting. The other kind of hedge is made with more open-growing shrubs. They are more graceful and attractive, but do not make as good a barrier.

Privet—This plant is more frequently planted for hedge purposes than any other. There is a hardy variety suited to northern planting. Plants can be set eight inches to a foot apart in the row. Where a very dense hedge is desired, the plants can be set in a double row, each plant one foot and the rows also one foot apart. In groups or masses plant two to three feet apart.

In preparing the ground, dig a trench a foot or more deep and *set the plants six to eight inches deeper in the ground than they were in the nursery*. This will bring three or four of the lower branches below the surface, which, after the first year, will make roots of their own, giving a dense solid growth.

The Privet takes readily to shearing. By using the shears repeatedly throughout the summer, trimming the new shoots, while they are tender and soft, the hedge can be trained into any one of a number of formal shapes; this, however, requires a great deal of work and is now practiced less frequently. A hedge with a naturally rounded growth is more attractive in most situations. When trimmed the base of the hedge should be wider than the top.

How To Plant Privet

Set the plants several inches deeper than they stood in the nursery, with the lower part of the branches below the level of the ground. Mound the dirt up six or eight inches above the level of the ground, to prevent the tops drying out. Rake this off when the buds start to open.

Japan Quince can be grown in the same way and can be sheared with impunity.

Japanese Barberry is a graceful-growing shrub, but should not be planted where a sheared hedge is desired, as it does not take readily to clipping. However, it forms a good low fence, as its numerous thorns will prevent children and dogs from running through it, although the thorns are not strong enough to tear clothing.

Very attractive boundary hedges can be made from *Spirea Van Houttei*, *Rosa Rugosa* and *Conrad F. Meyer*.

All of the tall-growing shrubs form very attractive hedges. These should be set 1 to 2 feet apart, and low-growing ones, such as *Barberry*, 12 to 18 inches apart.

CLIMBING VINES

Pruning of climbing vines is confined to removal of dead wood and straggling growth after blooming.

Boston Ivy—Set the plants as deep as they stood in the nursery. Protect the top the first winter after planting, with a mulch of leaves or straw. When once established, it is very hardy. It will climb and cling to wood, brick, rock, etc., anything except an iron support, which gets hot during the summer.

Japanese Clematis—Dig a hole that will take the roots without crowding. Set the crown an inch below the surface. Clematis should have a rigid support. If a string or wire is used, it allows the wind to blow the plant about, injuring it. Cut out all of the weak growth and during the winter prune the remainder heavily if you want the most bloom. Clematis thrives best when well fertilized and watered during dry weather.

Honeysuckle—Hall's Honeysuckle will thrive on all soils and under nearly all conditions. Set the vines as deep as they stood in the nursery. Make the hole large enough to take the roots without crowding.

It is especially good for verandas, houses, pillars, etc., as the wire netting or lattice it needs to grow on

may be loosened and laid flat on the ground while the woodwork is painted.

It is one of the few vines that thrive at the seashore and will bloom all summer except during the hot, dry weather. Endures shade.

It makes an attractive cover for a fence, where it should be set every six feet.

It can also be used to cover steep banks and unsightly places too shady for other plants. For this purpose, set the plants four feet apart each way. The vines will spread in all directions and take root, forming new plants, which make a solid, matted covering for the ground.

It will thrive in spite of neglect; but, to secure best results, the ground should be cultivated and given a dressing of manure during the winter, when the older, weaker vines should be cut out.

Wisteria—Set the plant as deep as it stood in the nursery. Keep it hoed the first summer, but after that do not fertilize or attempt to force its growth. It takes several years to come into blooming, and even longer if the growth is forced. The vine should have a strong, permanent support, for it is long-lived and eventually becomes very heavy. It naturally produces rugged, twisted branches, which are very effective. Where it is desired to cover the entire surface of a building or arbor, it is necessary to fasten the leaders, keeping them taut, and to train some of the outside branches. After the vine reaches the blooming age, it may be made to produce enormous quantities of flowers by cutting back the new growth each year to spurs.

To cover a tree, plant either the Wisteria or the Trumpet Vine quite a distance from the trunk of the tree, and put several yards of the stem under ground.

Trumpet Vine—Set the plants as deep as they stood in the nursery. They prefer very fertile soil. The ground should be fertilized every winter. Especially fine for covering rock walls and fences to which

it clings and climbs. Also used in covering buildings.

Climbing Roses—These should be planted as described under "Roses." The only pruning necessary is to cut out the old, weakened canes.

PEONY

Peonies can be planted either in the fall, early in September, or spring. They are vigorous, hardy, and thrive everywhere, except in the low altitudes of the Gulf States and southern California.

The ground should be spaded deep, two feet if practicable. Fertile soil is preferable, though not necessary for satisfactory results. Set the crown three inches below the surface of the ground. If planted in the fall, mulch with four or five inches of fine earth and leaves, straw, or coarse stable manure. It is advisable to give the ground immediately around the plant a dressing of manure every winter. The rough trash should be raked off in the spring.

Every seven or eight years it is advisable to dig them up and replant them. Cut the roots into two or more parts with a sharp knife. Each part should have three to five eyes. Reset in August or September as described above.

When planting in mass for color effect, set eighteen to thirty inches apart, depending on whether the variety is a strong grower. In growing for cut flowers, set two and one-half feet apart, in rows three and one-half to four feet wide. The tops die in the fall, and should be cut off. Some leave them until spring to mark their place, so that the roots will not be dug up by mistake or injured when the ground is worked over.

IRIS

The Iris is one of the most beautiful flowers, and can be grown anywhere on all kinds of soil. It will thrive in spite of neglect where other flowers fail, but gives best results on fertile, well-drained soil. The Iris can be planted either in the fall or spring. Strong plants set in the fall will give more bloom the first season than those set in

the spring. Put the crown of the root about two inches below the surface, pressing the dirt firmly around it. Be careful not to get the roots too deep; otherwise they will rot. If planted in the fall, they should be well mulched the first winter with four or five inches of loose soil and leaves or coarse manure. This should be raked off in the spring. For planting along borders and in masses for immediate color effects they can be set eight to ten inches apart. If planted in rows, set eighteen inches apart in rows three feet wide.

When the clumps of Iris get large, they can be divided with a sharp spade, during their resting period late in July or early in August and transplanted. If reset promptly in fresh earth and watered, they will produce the usual bloom the following spring.

ROSES

Roses should have a warm, sunny location. They can be made to grow on any soil, preferably a deep, well-drained, fertile loam. A few bushes of suitable varieties, set out like any other shrub, will thrive almost anywhere with the care usually given to shrubs and other plants. Nothing will respond to care and fertilizing as does the Rose, and in order to get the largest, most perfect bloom throughout the entire season, special planting and attention is necessary.

When to Plant—Hybrid Perpetuals, Ramblers, Prairie Wichuraiana and Rugosa Rose may be planted in the fall. Hybrid Teas, Tea and Climbing Hybrid Teas should be set out in the spring as early as possible before growth starts.

Roses are handled according to the type of Rose you plant and the results you require. Conrad F. Meyer and Rosa Rugosa may be used as shrubs, in which case they are treated as other shrubs. The climbing Roses are treated very much as other climbing vines. These climbing varieties may also be planted in rows and cut back to form a hedge.

When grown for cut flowers, Roses should be planted in beds and cultivated as any other crop. There are two classes of Roses for planting in beds: the bedding Roses, such as Annie Miller and Gruss an Tep-litz, which produce a profusion of medium or small-sized blooms that are most attractive on the bush and are grown as an ornament in the yard; the other varieties, such as Snow Queen, Maman Cochet, Paul Neyron, General Jacqueminot and Marshall P. Wilder, are grown for their attractive individual bloom and used as cut flowers.

For planting in beds, the following directions are especially worth while. They will give you results that you never dreamed possible.

Soil—Preferably a deep, well-drained, fertile loam. Stiff clay can be improved with several loads of sifted coal ashes or sand. To get best results, a great deal of compost or well-rotted manure should be mixed in with the dirt. You can not make the soil too rich, but no newly planted Rose should have its roots within striking distance of even old or well-rotted manure.

Hybrid Perpetuals, Hybrid Teas and other strong growing kinds may be set two to three feet apart and Teas two to two and a half feet apart. The stronger growing kinds should be placed in the center.

When the soil is naturally fertile, spading the ground thoroughly will give good results.

When the soil is not naturally fertile, prepare the bed the spring before by spading in well-rotted manure and leaf mold. If the soil is stiff clay, add sand or sifted ashes. A large quantity of manure may be used, providing it is mixed in some months ahead and well rotted before the plants are set.

Those who make a specialty of Roses prepare beds as follows: Lay out the bed the size desired. Throw out all the dirt to a depth of two or two and a half feet, and put in six inches of small, crushed stone. If located near large trees, a border of boards or permanent concrete

should be placed around the edge, to prevent the tree roots from taking the fertility needed for the Roses. The bed should be filled in with a mixture of one-third or more fertile top soil from the garden, one-third of the clay subsoil, and one-third of well-rotted manure. They should be well mixed before they are put in the pit. This mixture should be mounded up some inches above the surface of the ground to allow for settling. If there is not time to allow the ground to settle, it should be thoroughly tramped down as it is put in.

Rose

Cover the tops of newly-planted Rose bushes with a mound of loose dirt 6 to 12 inches tall. This prevents the tops from drying out and dying before they can start growth. As soon as the buds start to grow, rake this mound off. When planting budded Roses, the point where the bud was inserted in the stock (as shown by "A") should be set several inches below the surface of the ground.

Planting—The manner of setting Roses depends on how they are propagated. There are two methods: First, by growing from cuttings and green wood tips, which gives a plant on its own roots. Second, by budding on hardy stock. The budded Rose requires particular care in pruning; otherwise, the

briar stock will put out suckers below the bud and finally crowd it out. The bud is less vigorous at the start, and sometimes the suckers are allowed to remain by those who fail to distinguish one from the other. But the suckers from the briar stock are easily recognized, as the foliage is different, usually having seven leaflets instead of five, and the cane is nearly covered with thorns. Furthermore, the sucker comes up from the root below the surface of the ground, usually several inches from the main stem. Budded Roses should be set so that the point where the bud was inserted in the briar stock is two or three inches below the surface of the ground.

Roses-on-their-own-roots should be set as deep as they stood in the nursery or a little deeper, having two or three stems with four or five eyes each. Dig the hole eighteen inches deep; cut off broken or injured roots; hold the plant in position; spread out the roots so they do not cross or crowd one another at any point; fill in the holes carefully with the fertile top soil, pressing it firmly in about the roots. A small handful of finely ground bone meal sprinkled in is very helpful. After the hole has been filled and dirt pressed firmly, cut back the top canes to three or four inches and then mound loose dirt up to top of the canes. This mound of dirt should be placed about the canes whether the plants are set in the fall or spring—otherwise, they are apt to dry out. If the Roses are planted in the fall, this mound should be covered with a thick mulch of straw or leaves.

As soon as the buds start to grow, rake away the mound and cut back the canes, leaving two to four buds to each cane. Make this cut just above a sound outside bud, so that the new canes will grow outward and make a shapely bush.

Cultivation—Just before the growth starts in the spring, spade in well-rotted manure or fertilizer. Avoid deep cultivation, which is apt

to break the roots; three inches is sufficient. The ground should be kept well cultivated during the summer. When it is hot and dry, pour on enough water so as to wet the soil deep. The best time to water Roses is early in the morning, before the temperature rises. Cultivate as soon as the ground is dry enough. Careful cultivation will retain the moisture for a week or more. Never wet the foliage late in the day, otherwise mildew will develop.

To stimulate rapid growth, frequent wettings with weak manure water are excellent. This is made by soaking a bushel of old rotted manure from the cow barn or pig sty in a barrel of water.

Pruning—Roses are well established after the first season, and should be pruned each spring according to their needs; i. e., remove any old or weak canes and shorten back the others a half to four-fifths before growth starts in the spring.

The different varieties of Roses require different pruning, as their

habits of growth vary. The following should be pruned lightly: Annie Miller and Maman Cochet. The Snow Queen should be pruned moderately. The following should be pruned hard, cutting back the canes to about six buds: General Jacqueminot, Marshall P. Wilder, and Paul Neyron. The following should not be pruned except to remove old, weak canes: Conrad F. Meyer, Dorothy Perkins, Excelsa, Rosa Rugosa, Climbing American Beauty, and Gruss an Teplitz.

Remove the flowers as soon as the petals begin to drop. Do not allow seed-pods to form, except on the Rosa Rugosa, whose pods are quite attractive.

Severe pruning is required for blossoms of great perfection and continuous bloom. This means cutting back to four or five eyes for the hybrid perpetuals (H. P.), but for quantity of flowers cut away only one-third to one-half of the shoots. Teas and hybrid teas should be trimmed the same but in cold climates later in the spring about the time growth starts.

Roses Make Very Attractive Hedges. (See Page 33.)

Hardy climbers should be pruned just after blooming, removing one-third to one-fifth of the wood. The new wood produces the flowers and the old wood the foliage.

Insect Pests—The presence of leaf eating insects is shown by partially eaten or by skeletonized leaves. Some of them can be destroyed with poison sprayed on the leaves, using arsenate of lead about $\frac{1}{2}$ pound of paste or $\frac{1}{8}$ pound of powder to 10 quarts of water, but the rose chafer is hard to kill and may have to be picked off by hand and dropped in water on which there is a film of kerosene. In fact all the leaf eating insects can be removed that way.

Aphids, thrips and scale insects suck the sap and can be destroyed by a contact spray of 40 per cent nicotine sulphate. Dissolve half an ounce of fish oil soap or good laundry soap in one or two gallons of water and add a teaspoonful of nicotine. To get rid of aphids, some prefer to bend the shoots into a bowl of soft soap and water, or of soft water only and sponge the shoots and leaves.

Fungous Diseases — The most common is Mildew. When it first

appears the infected leaf should be rubbed between finger and thumb. Infected shoots at pruning time should be burned. Spraying with $\frac{1}{2}$ ounce of potassium sulphid dissolved in a quart of water is recommended for Mildew and Rust. This spray is more effective if $\frac{1}{2}$ ounce of fish oil soap or a good laundry soap is first dissolved in the water.

For leaf spot, pick off and burn the white-spotted leaves. Plants that have been attacked the previous season should be drenched in early spring before the buds expand, with a solution of copper sulphate in water.

Keeping your plants in a healthy condition is the ounce of prevention worth more than a pound of cure for fungous diseases.

For a few roses, a gloved thumb and finger to crush attacking insects, a coarse cotton bag to apply dry powders such as Pyrethrum or Persian insect powder and scissors to clip off diseased leaves as they appear, gives satisfactory results to a real rose lover who inspects the plants several times daily. For a larger planting a 3 or 5-gallon spray outfit is desirable.

A Well Designed Border of Spirea and Iris.

ORNAMENTAL TREES

Everybody appreciates fine trees for their beauty and utility. They grow larger and more beautiful every year, adding value to your property. Plant trees now; time will do the rest. Fast-growing kinds are often planted between others and are cut out when the longer-lived, slow-growing trees are big enough.

"If the American people realized the money value of trees to themselves as well as to the nation this country would not be in the danger it is of forest denudation.

"Mayor Dumont Kennedy, Crawfordsville, Ind., has an object lesson of increased wealth from a few trees. The mayor is a farmer. In his cowlot was a slightly rising mound. On May 10, 1902, it occurred to him that this mound would make a good site for a home some day. So, that very day, he planted twelve young shade trees around that mound, leaving 100 feet each way in the center for the house. In eighteen years those twelve trees have grown to fine size, their branches spreading beautifully around that central spot.

"The acre on which those trees grow was worth \$200 as a cowlot. Today it is worth \$1,000 as a building site, entirely because of the trees that Mayor Kennedy planted.

"Trees are a joy forever. They are worth planting for the pleasure of seeing them grow; they are worth planting for the value they bring to your land by reason of their decorative effect.

"Arbor day is not far away. Plan to plant one or more trees on your lot."—Kansas City Post, February 29, 1920.

WINDBREAKS—Windbreaks can be made by planting Norway, Sugar or Silver Maple, or Linden (Basswood). These tall-growing trees should be set twenty feet apart, with a second row of Russian Olive. This tree grows lower and bushier and should be planted eight feet apart. The Carolina Poplar and Lombardy Poplar are also very good, quick-growing, tall trees, but not so long-lived.

BECHTEL DOUBLE-FLOW-ERED CRAB (P. loensis)—The flowers are a beautiful pink; very sweet-scented; two inches in diameter. Best of all the double-flowered Crabs. From a distance the tree looks as if it were loaded with

roses. Blooms in May. Grows 15 to 20 feet tall. Hardy. Does well in light, sandy soils.

Bechtel Crab.

BLACK WALNUT (Juglans Nigra)—The Black Walnut is native to the entire eastern half of the United States and suited to all parts of the West; succeeds on alkali land. Nuts are round, one and one-half inches in diameter; highly flavored kernel; prized by confectioners for richness and quality. Wood is hard, strong, very durable, a beautiful dark brown; used for cabinet-making, gun stocks, etc. The tree is open, spreading, and a faster grower than hickory; attains a height of 60 to 100 feet, sometimes 150 on fertile soil. Should be planted as an ornamental tree, as a nut tree, preferably grafted or budded, known varieties, and as the most valuable fast-growing timber tree.

DOGWOOD, COMMON (Cornus Florida)—The common white-flowering Dogwood; grows wild in the

woods along streams. Large, creamy-white flowers, three to four inches across, come early in the spring before the leaves, followed by clusters of scarlet berries and brilliant foliage in the fall. Hardy. Grows 20 to 30 feet tall.

ELM, AMERICAN WHITE (*Ulmus Americana*)—Beautiful native shade tree. Fine for avenue or streets. Can be planted close to houses, as the high arching branches leave space for air and light. Grows up to 100 feet tall. Very hardy, thrives in wide variation of soils over a wide range of territory. Does well in low, moist situations.

GREEN ASH (*Fraxinus Lanceolata Viridis*)—A beautiful spreading tree with broad, rounding top, slender branches; very hardy, long-lived; a rapid grower, especially when young; light green leaves. Suited to conditions from Saskatchewan, Canada, to the Gulf of Mexico, and especially valuable in the prairie States of the Northwest; grows sixty to seventy feet high, two or three feet in diameter. Does well in low, moist situations.

LINDEN, OR BASSWOOD (*Tilia Americana*)—Flowers, June-July, creamy white, fragrant, attract bees. Large heart-shaped leaves. A rapid grower, often reaching a

height of 90 feet. Very hardy. A handsome avenue tree.

MAPLE, NORWAY (*Acer Platanoides*)—A large rounded tree. Dense foliage, smooth, glossy, dark green, turning yellow in the fall. One of the best and longest lived for street, park or garden; slow growing. Grows to about 50 feet.

MAPLE, SILVER LEAF (*Acer Saccharinum*)—The White or Silver Maple is a large, fast-growing tree. Very attractive. Sometimes planted alternately with the slower-growing but more permanent Sugar or Norway Maples, and cut out when the latter have attained a good size. Grows about 70 feet tall. Easily broken by windstorms, tendency to decay and to grow into defective sewers are its objectionable features.

MAPLE, SUGAR (*Acer Saccharum*)—The Hard or Rock Sugar Maple is the best park, shade, and street tree. Does not thrive under ordinary city conditions but admirable for suburban conditions. Beautiful dark green foliage, which turns red and yellow in the autumn. Moderately fast-growing, but very hardy, vigorous, and long-lived. Grows about 50 feet tall.

POPLAR, CAROLINA (*P. Carolinensis*)—Fastest-growing tree. Shiny, bright green leaves. Grows

Norway Maple (*Acer Platanoides*)

about 75 feet tall. Sometimes planted alternately with more permanent trees. Will grow almost anywhere; makes a fine spreading head if well cut back the first few seasons. Does well in low, moist situations. Its objections are: breaks easily in a storm, heaves up pavements and gets into sewer pipes.

POPLAR, LOMBARDY (*Populus Nigra Italica*) — One of the most striking and picturesque trees. A tall, narrow, columnar tree, growing 50 to 100 feet straight up. The

tall, spire-shaped tops are landmarks in almost every populated region from the Atlantic to the Pacific, and from the Canadian frontier to the Mexican boundary. Longer-lived than the Carolina poplar. Bright, glossy green leaves. Used as a windbreak, as it does not spread out; also extensively planted in the Western country to prevent blowing of sand. Also does well in low, moist places. It is of special value in landscape work where it is planted to relieve monotonous sky-lines and to increase the apparent height of hills.

TREES FOR CITY AND TOWN STREETS

The following quotations are from **STREET TREES**, Bulletin 816, which may be procured at 10 cents per copy from the Superintendent of Documents, Government Printing Office, Washington, D. C.

"The trees on well-shaded streets are not only pleasing, but also contribute toward the health of the community by transpiring moisture into the atmosphere and by producing a restful effect on eyes and nerves."

"A common practice is to set street trees 35 feet apart. In the eastern half of the United States and on the Pacific slope 50 feet apart is close enough for most varieties and for the larger growing trees 60 to 70 feet would be better."

"For use under city conditions a tree must be adapted to the climate and to

the soil upon which it is to be grown. It must have healthy foliage that withstands dust and smoke and a root system not easily affected by unusual soil conditions, by restricted feeding areas, or by root pruning when street improvements are made."

"Nursery-grown trees should be used for street planting, and they should have been transplanted at least every two years while in the nursery. This is to insure a thorough root pruning and the production of numerous fibrous roots close to the trunk."

A Good Example of How Walks Are Improved By Shrubberty

SHRUBS

Shrubs are the most important ornaments and give quickest results. They are invaluable as specimens; in groups or continuous borders; as screens against objectionable views or to secure privacy; as barriers or windbreaks; for flowering effects, for attractiveness of foliage or fruit. They relieve the harshness where house and lawn meet and the sharpness of corners. They are valued and appreciated more and more, as indicated by a thousand sold now to one a generation ago. They have the greatest range of color and bloom, and occupy the most important space in the garden—and they give the **quickest results**. They are especially valued where there is only room for a few

trees. The tall shrubs planted as a boundary make an effectual screen, and even on the larger estates an undergrowth of shrubbery is usually planted under the trees along the boundary. Many fine old places have an excellent growth of trees, but lack a proper planting of shrubs. Shrubs are the natural complement of trees, filling in the gap between their branches and the ground, and it is possible to get homelike results from shrubs that it would take years to acquire with trees alone. Anyone who has walked through woods from which all the natural undergrowth has been cleared away by an over-tidy owner realizes that they have lost half their charm.

Most trees can not be planted close to a house without robbing it of light and air, but tall shrubs, as a background for lower ones grouped around them, take off the sharpness of the corners, and let the sunshine stream in at the windows. Banked in front of foundation walls, they relieve the harshness of the line where house and land meet. The home nestles cozily in a nest of green, instead of springing suddenly from the lawn like a Jack-in-a-box.

It is cheaper to use shrubs to hide a steep bank or a deep cavity than it is to grade them. Many a house set on a narrow ridge of hill-top would appear to be less in danger of falling over the edge if the slopes around it were broadened by shrubs.

ALTHEA, or ROSE OF SHARON (*Hibiscus Syriacus*) (*Totus Alba*)—A large single bell-shaped white flower, somewhat resembling the Hollyhock, blooming the latter part of the summer, when most other flowers are gone.

Blooms from July to September. **Flowers** are white, three inches in

diameter. **Bush**, upright, eight to twelve feet tall. **Use:** one of the most satisfactory large shrubs for planting singly, in clumps, in masses, or as a hedge; hardy, succeeds everywhere. **Planting Distance**, 3 to 5 feet. **Prune** in winter for profusion of bloom. Do not allow the plant to run up, leaving base bare.

BARBERRY—An excellent shrub for mass and foundation planting for borders and hedges. See page 32.

DEUTZIA, LEMOINI—One of the best medium-sized shrubs for planting singly or in masses; a very profuse bloomer.

Blooms May-June. **Flowers:** branches are loaded with clusters of small white bell-shaped flowers. **Bush**, three to four feet tall, dense, spreading. **Use:** very effective small shrub for planting singly or around the borders of shrubbery masses. One of the hardiest, thrives everywhere. **Planting Distance**, 2 to 2½ feet. **Prune** in the spring, cutting out old, weakened canes.

Deutzia, Lemoinei. One of the Best Low Shrubs

DEUTZIA, PRIDE OF ROCKES-TER (Scabra Plena)—This beautiful shrub is taller, more upright growing than the Deutzia Lemoini, and may be used as a background or in the center of shrubbery masses. The foliage is particularly bright and clean, and the great profusion of flowers makes it one of the most satisfactory shrubs.

Blooms in the early spring, May or June, about two weeks after Deutzia Lemoini. **Flowers**, white, slightly tinted with pink, borne singly and in clusters. **Bush**, six to eight feet tall, upright. **Used** for hedges, shrubbery masses, and a background. **Planting Distance**, $3\frac{1}{2}$ to 4 feet. **Prune** in summer, just after they are through blooming. Trim the bush as required and cut out all old, weakened canes.

DOGWOOD (Cornus Alba Sibirica)—Its bright red color is especially desirable for autumn and winter effects. Do not confuse this with the common Dogwood, described on page 17.

Bloom, small and insignificant. It is valuable for its attractive smooth red bark and many clusters of small blue berries. **Foliage** takes on brilliant colors in the autumn. **Bush**, 6 to 10 feet tall, straight, upright growth. **Use** as a background for smaller-growing shrubs and single specimens. Succeeds

equally well in shady and sunny places and in almost any soil. **Extremely hardy**. **Planting Distance**, $3\frac{1}{2}$ to 4 feet. **Prune** lightly in the winter or spring, when the plants are dormant. Cut out all old, weakened canes.

GLOBE FLOWER (Kerria Japonica)—An old garden favorite. Dainty, graceful flowers and foliage; especially good near walks and drives where it will be seen closely and because it blooms throughout the entire season.

Blooms appear very early in May and continue throughout the summer; bright yellow, resembling small roses. **Bush**, 3 to 6 feet tall; broad-spreading, with many short, slender, drooping branches and green colors. Grows 6 to 7 feet tall. Has spreading, thorny branches, making a strong defensive hedge. Best protective hedge and windbreak for flower gardens. Stands pruning well. Very hardy, prefers the sun. **Bush**, 6 to 8 feet tall. **Planting Distance**, $2\frac{1}{2}$ to 4 feet.

GOLDEN BELL (Forsythia Intermediate)—The earliest blooming shrub, April-May. **Flowers** appear before the leaves, and the canes are long wreaths of bright yellow bloom. Flowers bright yellow, bell shaped, about an inch long. **Bush**, 6 to 10 feet. Vigorous grower

Deutzia, Pride of Rochester

Honeysuckle, Bush (Lonicera Morrowii)

with slender, erect, or arching branches. Considered by many as the best of the Forsythia family. **Use:** in shrubby masses or single specimens. Very hardy. **Foliage** bright, clean and untroubled by insects. **Planting Distance,** 3 to 5 feet. **Pruning,** remove any dead or weakened growth in the spring within a week after blooming.

HIGH BUSH CRANBERRY (Viburnum Opulus)—A large bush, resembling the common Snowball in foliage and somewhat in flower, but the flowers are fertile and develop beautiful clusters of red and gold waxen berries. These form in midsummer and hang on into the winter. Attractive red foliage lasts until late in the autumn. This fast-growing bush gives quick results. Endures shade.

Blooms May-June. The many small white flowers form a cluster three to four inches in diameter. **Bush,** eight to twelve feet high, spreading, upright, fast-growing. **Use:** the center of shrubby masses, as a hedge plant and background for smaller-growing shrubs. Very hardy. **Planting Distance,** 3 to 5 feet. **Prune** in summer, just after they are through blooming, cutting out old, weak canes, shortening back those that are too long.

HONEYSUCKLE, JAPAN BUSH (Lonicera Morrowii)—This beautiful shrub has dense green foliage, and a profusion of flowers, followed by shining red berries, which

hang on until winter. It is one of the best "all-season" shrubs.

Blooms appear during May and June; small, creamy-white trumpet-shaped flowers, an inch long. **Bush,** 6 to 10 feet tall. Dense, spreading, round shape. **Use:** especially in shrubby masses where dense foliage is required. Hardy; succeeds equally in the shade or sunshine; fast grower. **Planting Distance,** 3 to 5 feet. **Prune** lightly in the winter or spring, when plants are dormant. Remove the old, weakened canes—also where they are too thick.

HYDRANGEA ARBORESCENS STERILIS (Hills of Snow)—Conspicuous for its huge white panicles of dense balls made up of many little dainty flowers; somewhat resembles the Snowball, but much larger. **Blooms** in June-July, earlier than any other Hydrangea. **Bush,** 4 to 6 feet tall, upright, spreading. **Use:** for planting in shrubby mass or hedge, well back from walks or drives. Its large flowers show up effectively at a distance. Very hardy, fast grower; endures shade. **Planting Distance,** 2½ to 4 feet apart. **Prune** lightly in the winter or spring when plants are dormant. Cut out old, weakened canes entirely. See page 24.

HYDRANGEA (Large Flowered) (H. Pan. Grandiflora)—This Hydrangea is especially popular, because it blooms late in the summer, when flowers are scarce. Its huge clusters of flowers, often a foot

High Bush Cranberry. The berries are even more beautiful than the flowers, brilliant, waxy, red and yellow.

Snowberry
(*Symphoricarpos Racemosus*)

long or more, are larger than those of any other shrub. It also has beautiful foliage.

Bloom is white, turning to pink with the first frost. **Bush**, 6 to 8 feet tall, upright, spreading, fast-growing. **Use** in shrubbery masses and hedges, well back from walks and drives. Thrives best in the

sun; very hardy. **Planting Distance**, 2½ to 4 feet. **Prune** lightly in winter or spring, when the plants are dormant. Prune severely for quantity of flowers, less so for larger trusses. See page 25.

JAPAN QUINCE—(*Cydonia Japonica*)—One of the most attractive early-flowering shrubs. Bright, scarlet flowers in May, and shiny green foliage. A close-clipped hedge in bloom forms a wonderful pattern of scarlet and brilliant twigs which retain the green color throughout the winter. **Use**: especially in border or as a specimen. Hardy; thrives in any good garden soil; endures partial shade. **Planting Distance**, 2 to 2½ feet. **Prune** lightly in winter or spring, when plants are dormant.

PRAIRIE ROSE (*Rosa Setigera*)—This is a true Rose, but is listed here because it is most valuable as a shrub, one of the most beautiful for planting near the walks and drives where it will be seen closely. The best "Wild Rose."

Flowers, large, single, deep rose fading to white, one and a half

Hydrangea Arborescens Sterilis (Hills of Snow)

inches across; in large clusters. **Blooms** late in July or August; very attractive red seed-pods form the latter part of the summer. **Flowers** are like wild Roses, single, rose-colored. **Bush** grows 3 to 6 feet tall; forms dense, spreading bush. **Use:** near walks and drives, in shrub groups or for massing on hillsides. Extremely hardy, thrives everywhere, even in trying situations. **Planting Distance,** 2 to 2½ feet. **Prune** lightly in winter or spring when plants are dormant.

Rosa Rugosa. Alba.

PRIVET—Used for hedges more than any other shrub. When sheared closely it forms no flowers; otherwise, it will produce clusters of small flowers resembling the Lilac. Its bright glossy foliage makes a very attractive background for low-growing shrubs. Grows 6 to 10 feet tall. See Hedges, page 32.

attractive dark green foliage and red seed pods.

ROSA RUGOSA ALBA (Japanese)—This is a true Rose, often planted in the extreme North for its flowers, but its greatest value is as a shrub, as it has unusually

Blooms appear in May and continue until midsummer. Flowers are large white single roses, three inches or more across, followed by clusters of large reddish seed-pods. **Bush,** four to five feet tall, dense upright growth. **Use** as hedge or

Hydrangea Paniculata Grandiflora

Snowball
(*Viburnum Opulus Sterile*)

shrubby mass; extremely hardy. **Planting Distance**, 2 to 3 feet apart. **Pruning**: do not prune except to remove the old bark-bound canes in the winter or early spring.

SNOWBALL (*Viburnum Opulus Sterile*)—An old-time garden favorite. **Blooms** in early spring, May or June. **Flowers**, large round clusters of many small white blooms.

Bush, 8 to 12 feet tall; upright dense growth. **Use** as center of shrubbery masses or a background for small-growing shrubs or as specimens. Hardy, adaptable everywhere. **Planting Distance**, 3 to 5 feet. **Prune** in summer, just after blooming, cutting out old canes, shortening back the new growth.

SNOWBERRY (*Symphoricarpus Racemosus*)—One of the daintiest, most attractive small shrubs, especially good for planting near walks and drives. Clusters of pearly white berries develop early and hang until late winter.

Blooms June to July. **Flowers** small and insignificant, but the clusters of round, white berries are very attractive. **Bush** grows 3 to 6 feet tall, drooping gracefully. **Use** at the outer margin of the shrubbery border, as single plants, also as a hedge, as it will stand a great deal of shearing; very hardy; thrives in the shade or sun. **Planting Distance**, 2 to 2½ feet apart. **Prune** lightly in the winter or spring, when plants are dormant. Cut out old, weakened canes.

Shrubbery Planting

The *Spirea Van Houttei* bears a small, dainty flower, but in such profusion that it is one of the most conspicuous shrubs. Note the two large clumps on either side of the walk

SPIREA (S. Van Houttei)—Most attractive shrub of all; can be used in more ways and places and will give more satisfaction than any other shrub. The flowers and foliage are dainty and attractive near walks and drives where it will be seen closely, yet the foliage is dense and the flowers so numerous that it is equally satisfactory to plant where it will be seen at a distance. It is the favorite everywhere, succeeding on all soils and under all conditions. If you plant only one shrub, it should be Spirea.

Blooms early—May or June.

Flowers are white, very small. The clusters or "rosettes" appear in profusion the entire length of the branches. Form graceful, drooping wreaths.

Bush, 6 to 8 feet tall.

Use singly, in shrubbery border, hedge, or masses to hide the foundation of the house. Hardy, thrives in spite of neglect.

Planting Distance, 2½ to 4 feet; 18 inches for hedge.

Prune if required, about a week after the blossoms fall.

Spirea Van Houttei—The Best Shrub

A Well Arranged Mass Planting.

SPIREA, CRIMSON EVER-BLOOMING (S. Anthony Waterer)

—A very free flowering, compact shrub with bright crimson flowers blooming from June until frost; grows 2 to 3 feet tall. Thrives best in moist, fertile soils. Good for edging shrubberies and for low borders of walks or garden. Plant 2 to 2½ feet apart, as hedge about 18 inches apart.

SNOW GARLAND (Spirea Thunbergii) — A graceful low-growing shrub; branches rather slender and drooping; grows 3 to 6 feet tall. Leaves are small. Flowers small, white, in April and May. Used for edging shrubberies, planted 2 to 2½ feet apart and somewhat closer as borders for walks or gardens.

SYRINGA, OR MOCK ORANGE (Philadelphus Coronarius) — One of the most fragrant white flowers. With yellow stamens at the center, the blooms resemble orange blossoms.

Blooms in May-June; white flowers with yellow centers, an inch or more across; fragrant. **Bush**, 8 to 12 feet tall, straight, upright growth. **Use** as specimens, to screen unsightly views and in the centers of masses where tall, upright shrubs are required. Very

hardy, succeeds either in sun or shade. **Planting Distance**, 3 to 5 feet. Prune lightly in winter or spring when plants are dormant.

WEIGELA, ROSEA (Diervilla Florida) — Bright rose-colored, trumpet-shaped flowers, like the Honeysuckle, borne in long, graceful sprays; suited for planting near the walks, as well as at a distance, but necessary in every shrubbery border large or small.

Blooms—May or June. Best flowering shrub of the season. **Flowers** are a beautiful rose color, in great profusion; very striking and attractive. **Bush**, 6 to 8 feet tall, upright, spreading growth, especially attractive foliage and unusually free from insects and diseases. Endures partial shade. Generally adaptable everywhere. **Planting Distance**, 2½ to 4 feet apart. **Pruning**: thin out the old wood, cutting part of it back to the ground any time during the late winter or spring.

The critical period in the life of a plant is when it is transplanted from the nursery to its permanent location.

Shrubs, trees, etc., must not be exposed to sun or drying winds or to freezing while being transplanted. The roots and tops must be properly pruned and good soil firmly tamped about the roots.

Syringa, or Mock Orange (Philadelphus Coronarius)

LILACS

The old-fashioned purple Lilac has a delicious fragrance that lingers in the memory from one blooming season to another. No shrub has been so highly developed under cultivation. The best new varieties have immense clusters of large plumes, laden with sweetness. Some are double, some single. The white, reddish purple, and blue varieties lend themselves to many color schemes.

The Lilac grows rapidly, flowers profusely, has beautiful rich green foliage, free from insects. It can be used in many ways; for hedges, masses, for hiding objectionable sights, and, when planted alone, it makes a good bush, which improves with age and bears more blooms each year. Requires sunny location.

The old flower clusters should be removed, and the pruning done as soon as they are through blooming, as the bloom buds for next year form late the preceding summer.

LILAC, OLD-FASHIONED PURPLE (*Syringa Vulgaris*)—So well known as to need no detailed description. Grows eight to twelve feet tall. Upright. Very hardy. Suitable for mass or hedge. Planting distance, 3 to 5 feet.

LUDWIG SPAETH — Long plumes of single, perfectly formed, little flowers of a dark reddish purple. The inside of the flower is darker than the outside, showing beautiful contrasting shadows. Blooms in May or June. Upright; six to eight feet tall. Hardy.

MADAME ABEL CHATENAY—Large trusses of plumes. The dainty little flowers are double and

of exceeding purity and whiteness. The best of all the whites. Blooms in May or June. Upright; six to eight feet tall. Hardy.

PRESIDENT GREVY — A light blue. Double. The trusses are unusually large and perfect. One of the rarest and best. Blooms in May or June. Upright; six or eight feet.

Note—There is as much difference between the budded Lilacs—Ludwig Spaeth, Madame Abel Chatenay, President Grevy—and the Old-fashioned purple as there is between the new varieties of fruits and wild seedlings. The budded varieties are uniform, have larger bloom, greater beauty.

Lilac—Madame Abel Chatenay, pure white

Lilac—Ludwig Spaeth, reddish purple

CLIMBING VINES

Climbing vines add as much comfort and beauty to the house as trees and shrubs. Once started they grow quickly and require little attention. They are invaluable for toning stiff angles of buildings, to provide shade and flowers over verandas or trellises, to prevent washing on steep slopes and banks, and to cover unsightly objects.

Clematis, Japanese

BOSTON IVY (*Ampelopsis Veitchii*)—Clings to walls by little adhesive disks and forms a dense mat-like foliage, spreading rapidly over walls of buildings, tall chimneys, foundations, or covering unsightly telephone and trolley-poles. In the autumn it glows with colors as brilliant as the Maple. It loses its leaves in winter, giving any dampness a chance to dry out. Wood and paint that have had the protection of its leaves all summer are found to be in better condition than the exposed parts. Set vines 10 to 15 feet. Cover the first winter, after which it is hardy.

CLEMATIS, JAPANESE (*C. Paniculata*) — Dainty little star-shaped white flowers, borne in clusters, completely cover the upper part of the vine, giving out a rich-honey-like fragrance that carries a great distance. The flowers are lasting and open late in summer, followed by the feathery seeds,

which are very attractive. The brilliant, deep green, leathery foliage is very dense and beautiful. The vine is a rapid grower and will clothe large spaces. Set vines 8 to 12 feet, depending on how dense a screen is desired. Hardy.

HONEYSUCKLE, HALL'S (*Lonicera Japonica Halliana*) — Small trumpet-shaped flowers, a pure white, which gradually change to a light yellow. There is a powerful sweetness about them that is wonderfully pleasant and also attracts humming-birds. Blooms in June, August, and late fall. Foliage is a rich dark green, that continues through the winter in some places and lasts until Christmas in the North. Climbs up about fifteen feet. Set plants 8 to 12 feet, when used as a screen. Set 3½ feet apart, when vine is to train on the ground and form a carpet. Can be used in this way to cover unsightly banks. Very hardy. Thrives on heavy soil; endures shade.

Honeysuckle

TRUMPET VINE (Trumpet Honeysuckle) (*Bignonia Radicans*)—

The Trumpet Vine is one of the most satisfactory vines. It has been truly named, for the flowers, borne in clusters at the tips of its many branches, have a marked resemblance to trumpets. They are about three inches long, and a striking orange-red or scarlet. It blooms from July to the end of the summer. The flowers are very attractive, and the foliage has an even greater charm—a combination seldom found in any one vine. The leaves are made up of small leaflets arranged along the stem, and the foliage is so heavy and luxuriant that it forms graceful masses, which are especially fine for covering fences, rock walls, banks, trellises, and tree trunks. The branches will cling to either wood or brick by means of little rootlets at the joints of the vine. With its rich, dark green foliage and graceful habits, it brings the atmosphere of the woods to your garden. Set vines ten to fifteen feet apart.

Wisteria

WISTERIA, JAPANESE (*W.*

Multijuga) — The best permanent vine. A climbing tree in itself, often attaining great size and age. Can be trained on walls, arbors, etc., and is especially beautiful when the vine is growing over and through a live Locust tree—the foliage and flowers resemble each other, but the Wisteria blooms later than the Locust. The foliage is a light green. The delicate pea-like flowers are borne in clusters one to three feet long—several times longer than the old Chinese Wisteria. This is the true Japanese Wisteria, which is a beautiful purple. There are a hundred or more small flowers in one cluster. Bloom early, with a second small crop of flowers in August. Thrives best when left severely alone. One vine will cover a large space, but to get quick results it is best to set them every ten or fifteen feet. Don't prune; don't fertilize. Hardy.

For other climbers, see Roses.

Ivy and Climbing American Beauty Rose

HEDGES

Hedges are valuable for beauty, as screens, as windbreaks or as barriers. There are hedges for all kinds of surroundings, straight, up-

right Altheas or gracefully drooping Spireas, as well as the closely clipped hedge of Privet, the Japan Quince or the thorny Barberry.

Barberry (Japanese). The Best Low-Growing Protective Hedge—Requires no Attention

BARBERRY, J A P A N E S E — (*Barberia Thunbergii*) — Graceful arching twigs. Foliage coppery scarlet in the fall. Many decorative berries, which hang on all winter. Three to five feet tall. Quick grower. Unusually hardy. Thrives North or South. Stands heavy shearing, but usually does best when permitted to grow naturally. The best low ornamental defensive hedge. Has many small thorns, but they will not tear the clothing. Succeeds in the shade. Planting distances for hedge 8 to 12 inches; in masses 2 to 2½ feet. **This is not the barberry that acts as host for the wheat rust.**

JAPAN QUINCE (*Cydonia Japonica*)—Bright, scarlet flowers in April-May, and shiny green foliage. A close-clipped hedge in bloom forms a wonderful pattern of scarlet and brilliant green colors. Grows six to eight feet tall. Has spreading, thorny branches, making a strong defensive hedge. Used also for screens and as windbreaks for flower gardens. Stands pruning well. Very hardy. Prefers the sun. Plant 15 inches apart for a hedge.

PRIVET, CALIFORNIA (*Ligustrum Ovaliflorum*)—Smooth, leathery, bright green leaves, almost evergreen. Stands severest pruning and shearing; cut out old, weak canes during winter. Shear new growths during summer after shoots have made several inches growth; can be trained high or low, and sheared with impunity. After pruning the base should be wider than the top. Eight to ten feet. Free from disease and insect pests. Sometimes kills back to ground in the North, but if then cut back to the ground it grows up again and makes an even handsomer hedge. The fastest-growing and most popular hedge plant. Endures shade.

PRIVET, IBOTA (*Ligustrum Iboti*)—This is the most hardy Privet; beautiful dark, glossy foliage, dark red in autumn. Succeeds in the North, where California Privet is injured by winters. Endures shade. Stands severe pruning.

PRIVET, AMOOR RIVER (*Ligustrum Amurense*)—Similar to California but hardier. Adapted for hedges in cold and exposed

Spirea Van Houttei. Makes a Very Graceful, Free-Growing Hedge

places. Endures shade. Stands severe pruning.

SPIREA (S. Van Houttei)—Best white-flowered hedge. Very graceful and does not run riot. Therefore it is good for informal gardens as well as for formal effects. Medium-sized plants are usually used for hedges, and are set about two feet apart.

There are many other plants which make attractive hedges, but should not be sheared as heavily as the Barberry, Privet, or Japan Quince. Crimson Spirea (S. Anthony Waterer), Snow Garland (Spirea Thunbergii) and Japanese Barberry (Berberis Thunbergii) are often used for edging for walks

and for garden borders. The following all make graceful decorative hedges: Althea, Deutzia, Lilac, Hydrangea, Syringa, Snowball, Weigela Rosea, Snowberry, Forsythia Intermedia, High Bush Cranberry and Japan Bush Honeysuckle. Also such Roses as Conrad F. Meyer, Rosa Rugosa and Dorothy Perkins.

The following withstand the drought, smoke and abuse of city conditions: Japanese Barberry (Berberis Thunbergii), Althea (Rose of Sharon), Golden Bell (Forsythia Intermedia), Privet, Spirea Van Houttei, Snowberry (Symphoricarpos Racemosus), Common Lilac, High Bush Cranberry (Viburnum Opulus) and Snowball (Viburnum Opulus Sterile).

Privet. Most Widely Used for Hedges. Hardy Form for Northern Localities.

THE ROSE—"QUEEN OF FLOWERS"

These flowers of rarest beauty, in most varied forms, and with the sweetest perfumes, may be had from frost to frost in one glorious succession. The hardy Japanese Rugosas open before the others, followed by hybrid Perpetuals (H. P.), which make June the "Month of Roses." After the hybrid Perpetuals (which really are not perpetuals) come the hybrid Teas (H. T.), which have the hardiness of the hybrid Perpetuals and the refined, fragrant, and delicate beauty of the Teas. Most wonderful of all, they possess the Teas' habit of blooming freely and continuously throughout the summer and autumn. Such loveliness repays many times over your care in cultivation and in providing deep, fertile, well-drained beds. They require a sunny, sheltered spot, away from

the roots of shade trees which would rob them of much needed fertility.

ANNIE MILLER (Pol. H.) (Border and Bedding Rose)—Brilliant, shining pink flowers, medium size (twice as large as Baby Rambler). The bush is spreading, a larger, stronger grower and more attractive than the Baby Rambler. It is a constant and profuse bloomer all summer long. The old flowers drop off without detracting from the appearance of the bush. It is the ideal "Baby" Rose for borders and beds and good for edges of shrubbery masses. Plant about 1 foot apart. Can be transplanted to a pot in the fall and taken in the house, where it will continue to bloom all winter, a cheery bit of red and green. Prune lightly in late winter or early spring. Hardy.

CLIMBING AMERICAN BEAUTY (H. T.) — Wonderful bright scarlet Rose. The blooms are borne singly and are suitable for cut flowers. Resembles its American Beauty parent in form

Climbing American Beauty Rose

A wonderful new climbing Rose. The flowers are large and suitable for cutting

and color and its *Wichuriana* parent in hardiness, vigor, and resistance to diseases. Large quantities of bloom, three inches across, are borne in June, and occasional flowers throughout the season. Most beautiful climbing Rose; hardy, stands heat and drouth; foliage does not burn in the sun. Prune in late winter or early spring, cutting out old or weakened canes. Plant 3 to 4 feet apart.

CONRAD F. MEYER (Hy. Rugosa) (Bedding and shrubbery)—Silvery pink, double. Flowers early, continuing throughout the season; very fragrant. For hedges and the lawn. A splendid bedding Rose for the extreme North, where others are too tender. Very vigorous and hardy. Will not mildew. Best hybrid *Rugosa*. Do not prune except

to remove old canes; set about 3 feet apart.

DOROTHY PERKINS (H. Wich.) (Climber)—Beautiful shell-pink flowers, double; petals crinkled and rolled back. Flowers in large, loose clusters.

The foliage is small, dainty, and a glossy dark green; hangs late, almost evergreen. An unusually vigorous grower. Can be planted in rows and cut back to form a hedge, or trained over fences and trellises. 2½ to 4 feet apart. Cut out old canes. Hardy.

EXCELSA (H. Wich.) (Red Dorothy Perkins) (Climber)—A radiant dark red rose, very large clusters of double flowers. Outgrows most of the ramblers, has remarkably clean foliage, is hardy and comparatively free from disease. Plant 2½ to 4 feet apart.

Conrad F. Meyer. The Hardest Rose

Dorothy Perkins

Gruss an Teplitz

GENERAL JACQUEMINOT (H. P.) (For cut flowers)—“General Jack” is a celebrated, all-around Rose. Bright, shining, scarlet-crimson. Rich, shapely buds, soft velvety petals. Fragrant. Prune hard during late winter or early spring. Very hardy. Blooms early. Planting distance 2 to 3 feet.

GRUSS AN TEPLITZ (H. Ben.) (For cut flowers, shrubs, or hedge)—Dazzling, bright scarlet. Fragrant. Produces flowers in clusters. One of the best red Roses for continuous and profuse bloom. Forms beautiful contrast with Snow Queen. Vigorous grower. Plant 2 feet apart. Prune by thinning canes during late winter or early spring. Hardy.

MAMAN COCHET (T.) (For cut flowers)—The Queen of Roses. Rich, rosy, coral pink. Broad, graceful, re-curved, shell-like pet-

als. Large, exquisitely tapering buds. Very profuse, continuous bloomer, and the hardiest of the Tea Roses, which, as a class, are only fairly hardy. Plant about 2 feet apart.

North of St. Louis and Philadelphia, the Cochet should be protected by wrapping the tops in heavy paper or straw and raking leaves six or eight inches high around the base. The beautiful, continuous bloom pays for this winter protection many times over. Prune lightly in the winter or early spring.

MARSHALL P. WILDER (H. P.) (For cut flowers)—Deep, dark red. Large, perfect flowers. A clean, vigorous grower and a remarkably constant bloomer for its class. Fragrant. Prune back hard during late winter or early spring. Plant 2 to 3 feet apart. Very hardy.

Maman Cochet. The Hardest Tea Rose

PAUL NEYRON (H. P.) (For bedding in masses and cut flowers)—Bright, clear pink. The largest rose of all; for this reason, and because of its many petals, it is often called the "Peony Rose." Fragrant. Continuous bloomer. Strong, tall grower, almost thornless. Very hardy. Prune heavily during late winter or early spring. Plant 2 to 3 feet apart.

ROSA RUGOSA (Japanese) (For shrubbery and hedges)—The flowers are white, large, single, with broad, graceful petals, and are followed by clusters of large, orange-red seed-pods. The bush is heavy, dense, four to five feet tall. The rich, dark, leathery foliage, oddly wrinkled and shiny, is beautiful in itself. Hardy as oaks, remarkably free from insects and other pests. Can be planted near the seaside and in the extreme North, where others fail. One of the best Roses for ornamental hedge and as a shrub. Do not prune except to remove bark-bound canes.

SNOW QUEEN (Frau Karl Druschki) (H. P.) (For bedding and cut flowers)—Undoubtedly the best and largest white Rose, justly called "the white American Beauty." Pure snow-white with faintly tinted shadows. Very large, tapering buds, which open well. Blooms off and on throughout the season. Remarkably vigorous, tall grower. Plant three feet apart—often grows four to five feet first year. Very hardy. Prune moderately during late winter or early spring.

Quotations from Bulletin 750, ROSES FOR THE HOME, Government Printing Office, Washington, D. C.:

"The essentials for successful growth are a well-drained retentive soil thoroughly enriched, preferably with rotted manure. Cut-flower roses especially need heavy annual manuring."

"Special care must be exercised to prevent the roots from drying when out of the ground for transplanting."

"Own-rooted plants are best for the average grower."

"Dormant roses should have one-half to two-thirds of the wood removed at the time of transplanting."

Snow Queen (Frau Karl Druschki) (H. P.) The Favorite White Rose

PEONIES

The Peony is the most popular and widely planted of all hardy flowers. It is grand without being gaudy, large without being coarse, and many varieties are delightfully fragrant. It is easily grown. It is hardy wherever apple trees can be grown, and in the extreme North requires very little protection. Once established, it becomes a permanent flower, and is practically free from diseases and insects. It is ideal for cut flowers; is used by the carload on Memorial Day, and is often cut and held in cold storage a month for this day, and for decorative purposes at weddings and celebrations. Many people make "pin money" every year by selling cut flowers from a few clumps of Peonies at 75c to \$1.00 per dozen. Peonies are also planted in masses and on the borders of shrubbery masses.

COURONNE d'OR (Crown of Gold)—White, reflecting yellow, with a ring of golden stamens bedded at the base of the central petals. A very large, full, well packed, solid flower; semi-double, superb form, late. A good grower and reliable bloomer. This is one of the best Peonies for every purpose.

DELACHEI—Large and full, deep purple-crimson. The best dark-colored; semi-double. Late mid-season. Strong grower and profuse bloomer.

DORCHESTER—Beautiful light clear pink, creamy center, perfectly double, rose-shaped bloom. Sweet-scented. Late.

DUC de WELLINGTON—Ivory white, creamy center; very large and double; fragrant; late mid-season.

DUCHESSE de NEMOURS—Pure white, cup-shaped bloom with sulphur-white collar. Very fragrant. Of all Peonies, not one is so exquisite as the Duchesse de Nemours in the half-open state. Early bloomer; long stems.

FELIX CROUSSE—Brilliant ruby red with flame-colored center. Large, compact, ball-shaped flower. Fragrant; mid-season. Free bloomer.

FESTIVA MAXIMA—Pure white, usually with a few of the central petals tipped with carmine. Immense double bloom, spicy fragrance. A very vigorous grower, with flowers on long, stiff stems. The best of all the whites. Blooms early. Keeps well.

Festiva Maxima—Fragrant—The Favorite Peony

JEANNE d'ARC (Joan of Arc)
—Soft, delicate pink, with light “yellow-white” center, spotted with carmine, a charming combination. Fragrant. Sure profuse bloomer. The best and most popular tri-colored Peony. Mid-season.

LA SUBLIME—Crimson, fine, full, fragrant, tall.

MADAME LEBON—Very large, full, showy, compact bloom. Uniform color of bright cherry pink. Mid-season.

MEISSONIER—Reddish purple, crimson center, medium size, well formed bloom; pleasant odor; tall vigorous grower; free bloomer. Mid-season.

NIGRICANS—Dark, uniform crimson. Globular, compact bloom; showy. Mid-season.

PRINCE IMPERIAL—Dark purplish red. Semi-rose-shaped bloom. Very large. Strikingly beautiful. Moderately late.

Duc de Wellington—Very Large—Double

Couronne d'Or (Crown of Gold)—One of the Largest Whites

Felix Crousse—Brilliant Red

IRIS

Irises are often called hardy orchids because of the richness and beauty of the flowers. They vary in height from 1 to 3 feet, are very easy to grow, and blossom early in exquisite shades of many beautiful colors. Can be planted in the fall or spring.

Black Prince blooms very early and is about gone before the others start. Then comes Perfection and Fairy, and following them in close succession come Queen of May, Celeste, Flavescens, Madame Chereau, closing with Sans Souci, Orientalis and Snow Queen.

BLACK PRINCE (American Black Prince) — Purple-lilac and rich velvety black; very early; stem 24 inch.

CELESTE — Pale azure blue; strong branching grower; one of the best; stem 30 inch.

FAIRY — White, delicately suffused with soft blue, beautiful; very fragrant; stem 30 inch.

FLAVESCENS — A delicate shade of soft yellow; stem 2 to 3 feet.

MADAME CHEREAU — White, frilled with clear blue; stem 2 to 3 feet.

ORIENTALIS — Narrow bladed leaves with small flowers of exquisite blue; slender stems; 1 to 2 feet.

PERFECTION — Dark velvety purple and lavender-blue; handsome; stem 36 inch.

QUEEN OF MAY — Lilac with rose tint; stem 2 to 3 feet.

SANS SOUCI — Canary yellow and crimson-brown; short stem, about 2 feet.

SNOW QUEEN — Narrow bladed leaves with small white flowers with touch of gold near center. Slender stems, 1 to 2 feet.

Madame Chereau. White, Frilled With Blue

Sans Souci. Canary Yellow, Dull Maroon

HOW TO MAKE YOUR PLAN

The first step in the planting of home grounds is to make a suitable plan. It should be complete since there are almost always some additions or replacements to be made and it may fit one's pocket-book or preference best to extend the planting over several seasons. Furthermore, a complete, definite plan at the start avoids the mistakes of a "hit and miss" method.

When possible and practical, a landscape architect should be consulted, but there will always be many home-made gardens to one designed by the professional.

Large places are treated in a natural style, but small places have to be treated in a more formal style.

Locate on paper an outline of your property, the house and all existing trees, shrubs, buildings, etc., placing all these objects in their proper location, using a scale of ten to twenty feet to the inch according to the size of your place. The height of the foundation and steps, and location of windows and doors should be noted. In case you submit your plan to anyone for suggestion you should also describe any slope or terrace, the character of property adjoining and indicate what views you prefer to keep open or shut off and give points of compass.

Mark the location for planting trees, shrubs, etc., according to your particular taste and requirements.

Divide up the space so as to serve all purposes to advantage. A fully equipped house lot should have three parts, viz.: (a) a small, neat front yard. It should have an open lawn, the plantings confined to the borders and around the foundations and corners of the house; (b) a service yard for the garage, or the fruit and vegetable garden, or hanging out the wash, or handling the poultry, or any other necessary work. This area should be screened from the living portion of house and grounds and easily reached from the street and kitchen and basement entrances; (c) a good large family yard, or lawn, with some privacy, where the family can read, visit, play croquet, or indulge in any other domestic

A Carefully Laid Out Plan Results in a Pleasing Effect as Shown Above

recreations. A simple lawn is best, bordered by trees, shrubs and flowers which should be placed so as to frame desirable views and screen undesirable views or objects.

Plant in masses or continuous borders. Single detached specimens should be seldom used; stiff, round bunches or "clumps" never.

Make these border plantings along the boundaries of the home lot.

Or else form continuous screens where privacy is desired or where unpleasant views are to be covered.

Also plant continuous or nearly continuous borders along the foundations of the dwelling-house and attached buildings.

Heavier masses may be planted at the outer angles of the home lot.

Leave the centers open. Never plant trees, shrubs, or flower-beds in the center spaces of the lawn.

Make these open lawn spaces as large as possible. Placing the house at one side of the lot will help in this.

Trees should be used to frame the house and provide shade. Place the largest trees to the south and west of the house, so as to have shade from noon till night.

Plant native, hardy trees, shrubs and flowers by preference. Avoid

showy freaks and all unnatural-looking specimens. Also avoid all showy ornaments, such as white-washed fences, flower-beds edged with soda-pop bottles, iron dogs, deer, etc.

Place flower-beds in the back yard rather than in the front yard.

Use few varieties of trees and shrubs, and a considerable number of each variety.

Plant a few things every year. No place will go on forever without additions and repairs.

Give proper care. Trees, shrubs, flowers and lawn grass will not thrive under neglect any more than corn or potatoes.

In shrub masses, keep the taller-growers well back, then the medium-growing and next the low-growing, forming a mass which gradually meets the lawn.

Avoid too many straight lines.

Plant climbing vines on porches and arbors. A climbing rose, a Honeysuckle vine or Japanese Clematis can be planted on the same porch, giving a succession of bloom.

Don't have terraces near the sidewalk. An even slope is best.

Plant trailing vines on steep banks.

Don't plant shade trees closer than thirty feet.

Don't make your place conspicuous and showy.

Don't forget the appearance of your place as a whole in your love for flowers and shrubs.

Any Corner Can Be a Duplicate of the Above If Your Plan Is Carefully Laid Out

SHRUBS VALUABLE FOR FLOWERS

In Order of Bloom

Golden Bell (Forsythia, in variety).....	Yellow
Dogwood (Cornus, in variety).....	White
Japan Quince (Cydonia Japonica).....	Orange-red
Deutzia, Pride of Rochester (D. Cre-nata).....	White
Deutzia, Lemoinei.....	White
Globe Flower (Kerria Japonica).....	Yellow
Rosa Rugosa (Alba).....	White
Japan Bush Honeysuckle (Loniceri-Morrowii).....	White
Spirea Van Houttei.....	White
Snow Garland (Spirea Thunbergii).....	White
Lilac (Syringa Vulgaris).....	Purple
Snowball (Viburnum Opulus Sterile).....	White
Wisteria (W. Multijuga).....	Purple
Siberian Dogwood (Cornus Alba).....	White
Weigela Rosea (Diervilla Florida).....	Pink
Privet (Ligustrum, in variety).....	White
Roses, in variety.....	Various Colors
Mock Orange (Philadelphus Coronarius).....	White
High Bush Cranberry (Viburnum Opulus).....	White
Hills of Snow (Hydrangea Arborescens).....	White
Prairie Rose (Rosa Setigera).....	Pink
Crimson Spirea (Spirea Anthony Water).....	Red
Snowberry (Symphoricarpos Racemosus).....	Pink
Trumpet Vine (Tecoma Radicans).....	Red-orange
Rose of Sharon (Althea-Hibiscus Syriacus).....	White
Hydrangea (Paniculata Grandiflora).....	White
Japanese Clematis (Clematis Paniculata).....	White

FOR AUTUMN LEAF

Japanese Barberry
Dogwood Siberian
California Privet
Amoor River Privet
American Elm
Norway Maple
Privet, California and Amoor R.
Sugar Maple
Boston Ivy (vine)
Japanese Clematis (vine)
Hall's Honeysuckle (vine)

THRIVES IN STIFF CLAY

Japanese Barberry
Dogwood
Weigela Rosea
Roses
Spirea
Snowball
High Bush Cranberry
Sugar Maple

FOR ATTRACTIVE FRUITS

Japanese Barberry
Dogwood Siberian
Rosa Rugosa
High Bush Cranberry
Privet
Snowberry

FOR MASSES AND BORDERS

Medium Growing:

Dogwood Siberian
Deutzia P. of R.
Hydrangea A. S.
Hydrangea P. G.
Japan Quince
Prairie Rose
Privet
Rosa Rugosa
Spirea Van Houttei
Weigela Rosea

Low Growing:

Deutzia Lemoinei
Globe Flower
Japanese Barberry
Snow Garland
Snowberry
Spirea, Crimson

Tall Growing, for Background:

Althea
Golden Bell
High Bush Cranberry
Japan Bush Honeysuckle
Lilac
Mock Orange
Snowball

ENDURES SHADE

Japanese Barberry
Deutzia Lemoinei
Dogwood
Hydrangea A. S.
Privet
Mock Orange
Snowberry
Snowball
High Bush Cranberry
Hall's Honeysuckle (vine)
Weigela Rosea

FOR DRY UPLAND SITUATIONS

Japanese Barberry
Deutzia
Privet
Spirea
Snowberry
Snowball
High Bush Cranberry
Prairie Rose

FOR ATTRACTIVE TWIGS

Dogwood Siberian (red)
Globe Flower (green)

Common Names of Shrubs	Bloom'ng Period	Color and Size of Bloom	Height and Form of Bush	Comments
Althea (Hibiscus Syriacus) Rose of Sharon	September July	White, bell-shaped, large	8 to 12 ft., compact, upright	Hardy. Used singly, in masses and hedge
Barberry, Japanese (Berberis Thunbergii)	April May	Small flowers, red berries	3 to 5 ft., dense, upright	Best low hedge. Very hardy. Endures partial shade. Borders, masses, foundations.
Echitel Double-flowered Crab (Pyrus Ioensis B.)	May	Large, pink, rose-like	15 to 20 ft., round or oval	Used as specimen
Deutzia Lemoinei	May June	White, small, bell-shaped	3 to 4 ft., dense, spreading	Valuable for flowers, borders and facing masses
Deutzia Pride of Rochester (Deutzia Scabra Plena)	May June	White, double in large clusters	6 to 8 ft., upright, stiff	Blooms two weeks later than D. Lemoinei. Fast growing
Dogwood Siberian (Cornus Alba Siberica)	June	Blood-red bark, blue berries in fall	6 to 10 ft., upright, bushy	Thrive in shade and most any soil. Hardy
Golden Bell (Forsythia Intermedia)	April May	Golden yellow flowers	6 to 10 ft., upright arching branches	Earliest blooming shrub. Flowers and leaves very ornamental
High Bush Cranberry (Viburnum Opulus)	May June	White flowers, clusters of red berries	8 to 12 ft., upright, spreading	Endures shade. Hardy. Fine for autumn effects
Honeysuckle Japan Bush (Lonicera Morrowii)	May June	White flowers, red berries	6 to 10 ft., upright, compact	Very fast growing. Hardy
Hydrangea, Hills of Snow (H. Arborescens Sterile)	June July	Large clusters of pure white flowers	4 to 6 ft., upright, spreading	The hardiest Hydrangea. Endures shade

Common Names of Shrubs	Blooming Period	Color and Size of Bloom	Height and Form of Bush	Comments
Hydrangea, Large-flowered (H. Pan. Grandiflora).	August September	Large clusters of white flowers nearly foot long	6 to 8 ft., dense, rounding	Thrives on light sandy soil. Prefers sun
Japan Quince (Cydonia Japonica).	April May	Scarlet flowers	6 to 8 ft., dense, spreading	Prefers sun. Attractive autumn foliage. Good for hedge
Globe Flower (Kerria Japonica).	May August	Bright yellow	3 to 6 ft., slender drooping branches	Endures partial shade. Branches light green in winter.
Prairie Rose (Rosa Setigera).	July, Aug.	Large, deep rose fading to white	3 to 6 ft., dense, spreading	Thrives in heavy clay
Rosa Rugosa, Alba.	May	White	4 to 5 ft., dense, upright	Thrives in sandy soil and clay
Snowball (Viburnum Opulus Sterile).	May, June	Large balls of little white flowers	8 to 12 ft., upright	Grows almost anywhere
Snowberry (Symphoricarpos Race-mous).	June July	Small, inconspicuous, white flowers. White berries	3 to 6 ft.	Endures shade. Berries hang all winter.
Spirea Van Houttei.	May June	Small white flowers almost covering the foliage	6 to 8 ft. Arching branches	The best shrub. Thrives in sandy and clay soils
Spirea, Crimson Everblooming (S. Anthony Waterer).	June till frost	Bright crimson	2 to 3 ft.	Prefers fertile soil and sunny exposure
Snow Garland (Spirea Thunbergii).	April, May	Clusters of small, white flowers	3 to 6 ft., dense, graceful, slender	Attractive foliage
Syringa or Mock Orange (Philadelphus Coronarius).	May June	Fragrant, creamy white	8 to 12 ft., upright	Hardy. Endures shade. Fast grower
Weigela Rosea (Diervilla Florida).	May June	Large, white to deep rose, pink	6 to 8 ft., upright	Rather hardy. Endures shade. Fast grower

SUCCESS IN FRUIT GROWING

Well-ripened, sound fruit is a valuable food and in some form, fresh, canned or preserved, should form part of every meal. Fruit is necessary especially for the proper growth and health of children.

Home-grown fruit is well worthwhile because—

1. It reaches the table fresh and fully ripened.

2. A continuous supply of fruit of superior quality may be secured regardless of market prices.

3. Any surplus may be dried, canned, preserved or sold to local markets.

4. The care and attention required provides a healthful, profitable occupation for spare time, affording pleasure and satisfaction to those who like to see things grow.

5. In many localities fruit is often difficult to obtain unless grown in the home garden.

"Thousands of persons who have the opportunity to grow fruit for home consumption either neglect to set out the trees or plants, or if they have them, fail to give them the care that brings success. Formerly one of the cheapest commodities used in the household, fruit has now taken its place in the list of high-priced foods and its production for home use means a large saving in the family living expense. Even the grower of fruit in small quantities can now dispose of any surplus at a profitable figure. Home-grown fruit should no longer be regarded as an incident in family life, but as a distinct asset."—Better Fruit, January, 1920.

The commercial grower has a different problem. He requires large yields as nearly every year as possible, good shipping quality and attractiveness in appearance, whereas the home grower aims at quality and a continuous supply throughout the season.

Anyone who intends to grow fruit commercially should seek complete information from other growers, from his State Fruit Experiment Station, from the Department

of Agriculture at Washington, D. C., and all other reliable sources. He should know how to select a good site, choose varieties adapted to his climate and to the markets he expects to supply, etc.

The home grower is limited in choice of the site and soil, but has a far wider range of kinds and varieties from which to choose. There are over 2,000 named varieties of apple and the number propagated by any one nurseryman must of necessity be comparatively few.

Fruit trees do not thrive on poorly drained soil, and it is also desirable to have good air drainage so as to avoid injury from spring frosts. Cold air, you know, settles to the lowest levels. If you have a light, sandy soil your trees or plants are likely to suffer from extremes of heat and cold and from drought. If heavy clay, you will also be handicapped and it may be necessary to dig and throw out the surface soil where your trees are to be set, then throw out in another pile the subsoil to a depth of 8 to 12 inches. Then throw in a shovelful of old manure, bone meal or some general fertilizer and mix it thoroughly with the surface soil previously thrown out. Then set the tree, adding other surface soil and finally scatter the subsoil over the surface around the trees. These holes should be about five feet in diameter for trees, two feet for currants and gooseberries and for raspberries and blackberries a trench about fifteen inches wide.

Selection of Varieties.—In our catalog you will find a map and general information on varieties that succeed in different sections of the United States. You will then find the tables helpful in choosing varieties for quality, succession of ripening, etc. Note: It is wise to plant more than one variety of a kind. "It is an open question whether any variety is as produc-

tive or produces as fine fruit where self-sterilized." The Gravenstein, Northern Spy, Spitzenburg and Winesap apples, some varieties of Plum, Grape, etc., are more or less self-sterile and should have other varieties that bloom at the same time planted near them. The most profitable varieties of apples bloom medium to late in the spring. This does not affect their time of ripening, but they are less apt to be injured by late spring frosts. If you will give us a diagram of your plot, tell us what kinds and how many of each you want, we will gladly recommend varieties and arrangement.

While waiting for your trees to come into bearing, **FILLERS** and **INTERCROPS** can be profitably used. The orchard trees must be set far enough apart so that when full grown they will have plenty of air and sunshine for the development of good fruit and also to carry on economically the operations of pruning, spraying, cultivation, and picking. However, the young trees do not need all the ground for a number of years.

Youngbearing, smaller growing apple trees, such as Wagener, Yellow Transparent, Wealthy, King David, are best fillers in an apple orchard, planted in the center of each square. Peach, plum and cherry are sometimes used in the center of each square or between the trees and rows, but they require different management than the apple. The danger is that the orchardist is tempted to let the fillers stand too long.

Between the trees, such intercrops as early potatoes and beans are particularly good; corn, also, if not planted too close to the trees. Garden truck is often quite profitable near good markets. The small fruit also—strawberries, currants, gooseberries, raspberries and asparagus—make good intercrops. Do not plant any crop that does not permit cultivation nor one that requires very late cultivation. But if the soil is poor and lacking in fertility, such crops as cowpeas, soy

beans, rye, vetch, and, under certain circumstances, clover, should be grown between the trees and plowed under to enrich the soil.

Note—Common Causes of Failure to grow:

1. Destroyed by drying out from exposure to sun or drying winds, or freezing in the cold before setting out.
2. Crowding the roots into small holes cut in the sod.
3. Failure to firm the soil closely about the roots.
4. Leaving the trees or plants uncultivated.
5. Leaving the tops unpruned.
6. Not planting at the proper depth.
7. Planting in soil too wet or too dry.
8. Planting trees that were dug in the nursery before they became dormant.

Warning.—Do not cultivate nor irrigate your trees, etc., too late in the season, otherwise they will not mature sufficiently before cold weather and will be more susceptible to winter injury.

PLAN FOR A HOME ORCHARD **146 Feet by 150 Feet**

There are probably no two people who have the same sized plot available or would choose the same kinds of fruit, but the following may help to lay out your fruit garden:

	15 ft.	
5 Apple.....	30 ft.	30 ft. apart
5 Apple.....	25 ft.	30 ft. apart
7 Cherry.....	20 ft.	20 ft. apart
7 Plum.....	20 ft.	20 ft. apart
7 Peach.....	20 ft.	20 ft. apart
40 Raspberry.....	3 ft.	3 ft. apart
40 Blackberry.....	10 ft.	3 ft. apart
16 Grape.....	8 ft.	8 ft. apart

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Dorothy Perkins Climbing Rose

SERVICE

Anyone who has given serious and continued thought to the subject must inevitably have come to the final conclusion that real satisfaction and happiness lie in rendering service to others.

That fundamental principle is being put into effect more and more by individuals and by firms, and it has been demonstrated over and over that profits are the natural result. "A pleased customer is the best advertisement."

The service which we aim to render is not confined to supplying first-class trees and plants. The pleasure and profit to be had in fruit or ornamental trees and plants depends chiefly upon the planter himself.

Our first object, therefore, is to help you to plant judiciously—i. e., where, when, and what to plant; second, how to know and how to get first-class trees and plants; third, how to plant and care for them.

In our three booklets, our Catalogue of Fruit and Ornamental Trees and Plants, "Inside Facts of Profitable Fruit-Growing," and "How to Beautify Your Home Grounds," we have gathered from every reliable source available the information which may be required to insure your success.

Our Catalogue is sent free of charge to anyone who is interested. For the other booklets we make a nominal charge of ten cents per copy, but send them free to every customer.

Neosho Nurseries Co.,

Neosho, Missouri