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Success With Roses

~ Spring 1931 ~



It's easy to have lovely Roses in abundance

SARCOXIE NURSERIES

PEONY FIELDS

Wild Brothers Nursery Co., Sarcoxie, Mo.

Success With Roses

It's easy to have lovely roses in abundance a few weeks after planting! Have you a bit of ground with sun half the day, soil that will grow good garden crops? Then you need but cultivate as opportunity offers, cut off the faded flowers, dust the plants occasionally with sulphur and mound soil about them in winter, and you have fulfilled the requirements of successful rose growing. All the suggestions following are but details. Of course there are conditions under which roses do not thrive, and the cautions about these may make rose growing seem complicated. Yet if we could visit your grounds perhaps we would only say: "Don't plant here; plant there. Plant firmly and prune severely."

Good Drainage the First Essential

Roses will not thrive in low, wet, soggy soil, even though rich. The soil should retain moisture, but surplus water must escape readily. This is drainage. Standing water becomes stagnant, resulting in acidity and causing root diseases. A gentle slope usually provides ample drainage. When in doubt pour a bucket of water in a hole. If it is readily absorbed and next morning the ground is in good condition to work, the drainage is sufficient. If sticky and soggy, better drainage is needed. If the water quickly disappears and the soil soon dries, it indicates too much drainage and should be treated as directed below for sandy soils.

A deep hole partly filled with rocks, as often recommended, gives good drainage if surplus water escapes readily. If the sub-soil is so dense the hole retains water like a pond, provide an outlet by tile to prevent an underground pool of stagnant water, particularly injurious when the bottom is filled with manure. Soil that drains naturally is preferable.

Avoid Excessive Shade

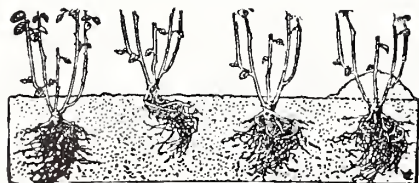
Roses should have 5 to 6 hours or more of sun. Shade part of the day, cast by distant trees or shrubs, is not harmful, and is even beneficial for some delicate colors that fade easily, but roses should have an open sky and will not do so well under large overhanging limbs. If you must plant near trees or large shrubs, the roots of which rob them of plant food and moisture, strike a sharp spade through the tree roots twice a year. Roses need plenty of fresh air as good air circulation reduces leaf diseases. Avoid very windy locations which shatter the flowers and injure the bark by whipping the thorny canes about.

The Best Soil for Roses

While any soil that will grow good garden crops will grow good roses, a clay loam will grow better roses. Many soils are improved by adding some common clay and cow manure. If the soil is heavy, add river sand and leaf mold or well rotted manure. Never use mining sand. If the soil is so loose and sandy the water quickly drains away, add clay and leaf mold, cow manure, sod or other humus. For good results soil must not only be fertile but must contain humus or vegetable matter in process of decay, often called organic matter. In sandy soil it helps retain moisture and fertility. In heavy or clay soil it assists in aeration and helps prevent packing.

Use sheep manure if cow manure cannot be obtained. If neither can be secured use any other which is well rotted. Chicken and hog manure are concentrated and should not be used too freely. Bone meal is a good but not a complete fertilizer and is slow in action, requiring about six months to be fully effective. Use chemical fertilizers with caution, preferably with a knowledge of what the soil lacks, or they may result in injury. Sandy soils need more frequent applications of manure than heavier soils.

To dig three feet deep, as sometimes directed, and fill the



Too deep & set wrong
Just right & mounded for winter

bottom with manure seems a waste of labor and material. Rose roots do not go that deep. Fifteen inches, well prepared, is ample. It is easy to enrich the top soil each winter or spring. If the lower soil is deficient in fertility, add it before planting. Remove the top 9 or 10 inches and pile it to one side. Dig up the lower part, pulverize, add manure and humus and mix thoroughly. Keep filling in this manner. It is better if prepared sufficiently in advance so it may settle some.

Every gardener should have a compost heap, a source of valuable plant food and a soil conditioner unexcelled. Construct a bin and dump into it leaves, grass clippings and garden refuse. Do not use, but burn, diseased plants of any kind. Some soil or ashes will hold down the mass which should be kept wet and forked over or mixed occasionally. The addition of some acid phosphate will cause quicker decay and a more balanced product. When well mellowed it may be used as a winter mulch and cultivated into the soil at the coming of spring.

Planting Roses

Climbers, Ramblers and Hardy Bush Roses may be planted in the fall except in severely cold climates. Teas and Hybrid Teas are often planted in the spring to avoid one year of winter protection. Some writers advocate fall planting of all roses, saying stored roses are not always in as good condition as those shipped in the fall. We have a modern cold storage system with artificial refrigeration so we can maintain a uniform temperature at the degree desired. The roses are packed away in material of the right moisture and it gives them a long, mild winter. They keep in excellent condition, give us good results and we do not hesitate to recommend our roses for spring planting.

Unpack upon arrival unless frozen or received during frosty weather. If frozen, do not hasten thawing, but bury the package unopened in well drained ground or place it in a cool basement free from frost and allow it to thaw slowly. See that the roots do not dry out before or after planting as loss is often due to lack of care in this respect rather than to the fault of the plants. If the plants seem dry or shriveled through delay, bury them, tops and roots, in moist soil for 24 hours or more until the shriveled appearance disappears.

The recent practice of pruning severely to secure larger and better flowers permits closer planting than was done some years ago. Plant the everbloomers 15 to 18 inches apart, the hybrid perpetuals 18 to 24 inches. The distance of the ramblers and climbers depends upon their habit of growth, as indicated in the descriptions. Any rambler should fill 5 feet of space. Along a fence, arbor, etc. the supports naturally regulate the distance.

Plant Roses Firmly

Roses are easily grown if planted firmly and pruned severely. Dig a hole large and deep enough so the roots will not be crowded. Usually 15 inches wide and a foot deep is ample. Cut off any injured roots and bruised ends. A smooth cut heals more readily and puts out new roots more quickly. Spread the roots naturally. If any turn upward at the end, either shorten them or dig a larger hole. Work the soil among them thoroughly. A gentle shaking or churning motion of the plant helps. See that no air pockets are left and that the soil is in contact with all the roots, as new growth commences only where the soil is in contact with them. When the roots are sufficiently covered so it can be done without injury, firm the soil with the foot or a small pole. One cannot firm it too thoroughly with the weight of the body. Continue filling and firming almost to the top. If the soil is very dry, pour in a bucket of water when the hole is almost full and let it settle. Place some loose earth on top to conserve the moisture, and to prevent baking. During very dry or windy weather, or if it seems likely to turn very cold, mound the plants up for a few days, as directed for winter protection.

When planting budded roses, place the bud just under the surface. This is readily determined by a bulge or swelling on the stem or by the stem growing out at an angle from the stock on which it is budded. We do not recommend planting unusually deep to make the plant form roots above the bud and eventually be on its own roots. That seldom happens, and the object of budding is to supply a stronger root system, so why try to change them to a weaker root system? Placing the bud

Continued on page 6

Everblooming or Monthly Roses



These strong two year plants will give you beautiful roses a few weeks after planting.

These strong two year plants will give you beautiful flowers a few weeks after planting, and all summer till fall, flowers of superb form, beautiful colors and delightful fragrance. Plant 15 to 18 in. apart. T. indicates Tea, H. T., Hybrid Tea, Per., Pernetiana, Pol., Polyantha. For distinguishing characteristics see page 7.

Strong budded 2-year field grown plants, 80c each, \$7.50 per 10., except as noted. Any 5 roses at the 10 rate. Postage extra if by parcel post.

Betty Uprichard

A charming two-toned rose, the outside of the petals coppery-pink, the inner surface rosy-salmon; of attractive form; vigorous; blooms freely; H. T. \$1.00 each.

Briarellif

Large, pointed buds; double, high-centered blooms; brilliant rose-pink; blooms freely on long, stiff stems; fragrant; the flowers keep well; vigorous; a sport of Columbia; H. T.

Columbia

Large, handsome, rich rose-pink buds opening slowly into somewhat flat blooms, full to the center; very fragrant; of good substance and keeps well; good stems; vigorous; especially good as the weather becomes cooler; H. T.

Etoile de France

Clear velvety red-crimson, very brilliant in the sun; shapely, globular buds opening into flowers of good size with plenty of petals; decidedly fragrant; blooms freely, giving better results in warm weather than most red roses; H. T.

F. J. Grootendorst

A Rugosa-Baby Rambler hybrid combining the Rugosa foliage, hardiness and vigor with the everblooming habit and flower clusters of the Baby Rambler; bright fiery red, the ends of the

petals fringed; grows 3 to 6 ft. high; prune heavily in spring and as the flowers fade to maintain constant bloom and height desired; excellent as a shrub or hedge.

Francis Scott Key

Large, globular, light crimson buds opening into rounded, very double flowers of good form; mild fragrance; upright habit; blooms freely with good foliage; H. T.

Gruss an Teplitz

Rich, brilliant fiery crimson with velvety shadings; fragrant, semi-double flowers in clusters, nodding in the breeze on slender stems. It has hardly the size or shape for a cut flower rose, but blooms so freely it is a blaze of color all summer and is one of the best for decorative effect. Vigorous, becoming 4 to 5 ft. high; plant in the background of other roses or use as a shrub; pruning consists mainly in removing old wood and shattered or faded flowers; China or Bengal.

Ideal

All summer long its dark scarlet blooms like ramblers are produced freely in large clusters on dwarf plants; excellent as a low growing shrub to give constant bloom in the shrubby border, and as a hedge; very showy in large masses or beds as one would use geraniums; Pol.

Jonkheer J. L. Mock

Large carmine buds opening slowly into carmine pink flowers, the inner surface silvery-rose; very double; at its best in cool weather; plant vigorous and healthy; H. T.

Kaiserin Auguste Viktoria

Large creamy-white buds opening slowly into very double white flowers with just a tinge of lemon at the base of the petals; delightfully fragrant; one of the most perfect in form, both in bud and full blown; of good substance and keeping qualities; H. T.

Lady Hillingdon

Pretty, slender, pointed buds opening into cupped flowers of good size; apricot yellow becoming lighter as they age; delightfully fragrant; deep green, disease resisting foliage; few thorns; a constant bloomer, greatly admired; T.

Los Angeles

Lovely long, pointed buds opening into large flowers, a luminous flame-pink toned coral, the base of the petals washed with gold; fragrant; good stems; upright habit; it requires good care in some sections but is so beautiful and blooms so freely it would be worth planting for one season's flowers; Per.

Luxembourg

A fine, large, well shaped, rich yellow rose of vigorous, branching, bushy habit; T.

Madame Edouard Herriot; Daily Mail Rose

Long, pointed buds; the nearly open flowers are distinct coral-red becoming orange-pink, finally lighter before they shatter;



Gruss an Teplitz



Los Angeles

Everblooming or Monthly Roses, Continued



Kaiserin Auguste Viktoria, one of the most perfect in form fairly large; semi-double but an unusual, popular color; moderate height; blooms freely and very early; Per.

Pink Radiance; Radiance

Large, brilliant rose-pink buds opening into globular but not too compact flowers, the inner surface of the petals light pink, the outer almost carmine-pink, producing an excellent two-tone effect; fragrant; blooms profusely; good stems; foliage very

free from black spot; vigorous, upright habit, reaching 3 to 4 ft.; plant 24 to 30 in. apart; H. T.

Red Radiance

A sport of Radiance and like it in form, fragrance, habit, vigor, and resistance to disease, but the color is a bright cerise-red. Should be in all collections; H. T.

Souvenir de Claudius Pernet

Beautiful buds opening into a striking sunflower-yellow with orange shadings, the edges of the recurving outer petals somewhat lighter; fragrant; foliage glossy, deep green; blooms freely, early to late; best in sunny weather; Per.

Souvenir de Georges Pernet

Long, pointed, oriental-red buds opening into orange-pink blooms of excellent form; fragrant; blooms freely; Per.

Sunburst

Orange-copper or golden-orange, the edges of the petals light-er; cup shaped flowers; delightful tea rose fragrance; reddish-bronze, disease resistant foliage; H. T.

Talisman

Brilliant red and gold buds, opening into blooms of scarlet-orange and rich yellow, unusual and variable in color. A new rose worthy of testing. Per. \$1.25 each.

Willowmere

Excellent buds and blooms; rich pink overcast with a yellow glow; a strong grower and persistent bloomer; some growers prefer it to Los Angeles; both are beautiful; Per.

Hardy Bush Roses

Early in the season the Hybrid Perpetuals give a grand display, unsurpassed by any of the ever-bloomers, and some bloom intermittently in the summer or again in the fall. They are hardy, easily grown, and the roses to plant where protection cannot be given. H. P. indicates Hybrid Perpetual. For characteristics see page 7.

Strong 2-year field grown plants 65c each, \$6.00 per 10. Any 5 roses at the 10 rate. Postage extra if by parcel post.

Frau Karl Druschki; White American Beauty

Long, pointed buds and magnificent, pure paper-white semi-double flowers often four inches across with large, firm, waxy petals; very strong and vigorous; 4 to 6, occasionally 8 feet high; prune heavily to keep it within bounds and it will bloom in the spring and intermittently during summer and fall; one of the best hardy white roses; H. P.

General Jacqueminot; General Jack

Brilliant, velvety crimson-scarlet; large, full, very fragrant flowers; strong, vigorous, reaching a height of 3 to 4 ft., occasionally taller. The fact that it has been popular for almost 80 years indicates unusual merit; H. P.

Hugonis; Rosa Hugonis

Before other roses hardly realize spring is here the reddish-tipped branches are thickly covered with small, dainty leaves, a background for the very early, single flowers, 2 to 2½ inches across, making a gorgeous bush of soft yellow; vigorous, upright, spreading habit, attaining 5 to 7 ft.; hardy; prune after blooming; useful in shrubbery plantings, as specimen plants or in groups. 55c each; \$5.00 per 10.

J. B. Clark

Velvety scarlet-crimson; large, globular, fragrant flowers; very vigorous; heavy pruning each spring will avoid excessive height and give better flowers; blooms intermittently in the fall; H. P.

Paul Neyron

Perhaps the largest of roses and for over 60 years one of the most popular hardy varieties. Deep, shining rose, clear and bright; full double; blooms freely in the spring and usually again in the fall; vigorous; of moderate height, reaching about 3 feet; very few thorns; H. P.

Rugosa red; Rosa rugosa rubra

One of the most ornamental shrub roses; large, single, purplish-red flowers 2½ to 3½ inches across; conspicuous, bright red seed pods, sometimes an inch in diameter, remaining well into fall. Very hardy; grows 4 to 6 feet high; shining, deep green, wrinkled foliage; succeeds in sun or partial shade; seldom troubled by leaf-eating insects or diseases. Desirable for mass plantings about the home, in the foreground of higher shrubs or as a background for low shrubs and makes a good flowering hedge. 40c each, \$3.50 per 10.

Ulrich Brunner

Cherry-red; of large size and good globular form; very fragrant; a dependable, free-blooming rose; tall; very vigorous; few thorns. Liberal pruning will give blooms of exceptional size and color; H. P.

THE FASCINATION OF ROCK GARDENING

A little booklet the size of this, describing the different types of rock gardens, with suggestions for construction and planting. It contains a lot of information in a little space. Write for it if you haven't a copy.



Paul Neyron, perhaps the largest of roses

Hardy Climbers and Rambler Roses

During their season these give more flowers and a greater display than any other roses grown. Is the porch sunny and bare? Climbing roses provide both shade and beauty. Is there an arbor you wish to beautify? Use roses. Have you an unsightly fence? Ramblers make the prettiest fence imaginable. Have you a view you wish to screen? A trellis with roses will make your screen a thing of beauty. Is there a rough or stony slope you wish to beautify? Cover it with ramblers. Do you want an arched entrance to the rose garden? What can be more appropriate?

In recent years this class of roses has been wonderfully improved. The large-flowered class, now termed Climbers, have been added to the old, familiar type with clusters of small flowers, termed Ramblers, of which the Perkins are examples. Pillar Roses are those suitable for training on pillars 5 to 8 feet high. Some climbers are also suitable for pillar use. Many of the newer climbers have blooms approaching the Hybrid Teas in appearance and stems of sufficient length to be suitable for cut flowers.

By selecting early, midseason and late you can have four to five weeks of flowers. The early varieties usually begin blooming here about May 20 to 25. H. W. indicates Hybrid Wichuriana; H. M., Hybrid multiflora.

Strong 2-year field grown plants 55c each, \$5.00 per 10. Any 5 roses at the 10 rate. Postage additional if by parcel post.

American Pillar

A beautiful single rose; large clusters of flowers 2 to 3 inches across, brilliant pink approaching carmine, with a clear white eye and a cluster of golden stamens in the center, followed by red berries; long, strong stems; foliage healthy, dark green; vigorous, sometimes reaching 30 feet; midseason to late-midseason; blooms freely; H. W., Climber.

Christine Wright

Large, semi-double, bright wild-rose-pink flowers, often 3 to 4 inches across, borne singly and in clusters; beautiful both in bud and when fully blown; moderately strong growth, reaching 10 to 12 feet; early; H. W. Climber and Pillar.

Climbing American Beauty

Beautiful buds and large flowers of excellent form on good stems; almost the same color and fragrance as the Bush American Beauty though not as large because there are so many flowers; the size may be increased by pinching off some of the buds; strong, healthy, vigorous, reaching 10 feet or more; early; H. W. Climber and Pillar.

Dorothy Perkins, Pink

A profusion of large clusters of small, fragrant, beautiful, clear shell-pink flowers with attractively crinkled petals giving a fluffy appearance; late and lasts a long time; very vigorous, sometimes reaching 30 feet. The Perkins class may be used for fences, arbors, trained over walls, as a ground cover, or for embankments; H. W. Rambler.

Dorothy Perkins, White

A sport of Dorothy Perkins and an excellent white Rambler; late; H. W. Rambler.

Dr. W. Van Fleet

Delicate flesh-pink, sometimes almost white, deepening into rosy-flesh at the center; beautiful pointed buds resembling hybrid teas, opening into semi-double, cupped flowers borne singly on stems of good length so may be used for cutting; medium early to midseason and blooms over a long period. Very free from insects and diseases; good growth, attaining a height of 20 feet; prune moderately; H. W. Climber.

Excelsa; Red Dorothy Perkins

Crimson-maroon, tinged scarlet; large clusters produced freely; late; vigorous, reaching 30 feet; glossy foliage; H. W. Rambler.

Goldfinch

Slender, deep yellow buds in clusters, opening creamy-white with a bright yellow center; semi-double; early; blooms freely; vigorous growth, reaching 20 feet; H. M. Rambler.



For an arched entrance, what can be more appropriate than Ramblers

Mary Wallace

One of the best, both as a climber and a pillar rose. Pretty buds opening into charming, semi-double, cupped flowers often 4 inches across; very bright, clear rose-pink, shaded salmon and gold at the base of the petals; early; blooms very freely; moderately fragrant; resistant to mildew; vigorous, reaching 20 feet; prune moderately; H. W.

Paul's Scarlet Climber; Paul's Scarlet

Vivid scarlet shaded crimson, intensified by the yellow stamens; flowers of good size, semi-double, in clusters of 3 to 15; a brilliant color well retained; medium early to mid-season; moderate growth, reaching 10 feet; H. W. Pillar.

Philadelphia

Intense crimson flowers of good substance in large clusters; blooms freely; very vigorous; very resistant to mildew; medium early; H. M. Rambler.

Silver Moon

Creamy buds opening into beautiful, semi-double, very large white flowers, often 3 to 4 inches across, a cluster of golden stamens in the center; midseason; foliage rich, dark green; blooms very freely, covering the bush; vigorous, reaching 20 to 30 ft.; one of the best white climbers. H. W.

Tausendschoen; Thousand Beauties

Immense clusters of flowers, large for a Rambler; petals charmingly ruffled; cherry-pink buds opening a beautiful, delicate pink, carmine on the reverse, becoming almost white before they shatter, a cluster varying from almost white to deep pink; early; blooms freely; vigorous, reaching 15 to 20 ft.; heavy canes; few thorns; glossy, light green, disease resistant foliage; H. M. Rambler and Pillar.

HOW TO GROW ROSES

A "How-to-do-it" book of 211 pages and 138 illustrations (45 rose varieties in natural colors.) It has three outstanding authors—Robert Pyle, J. Horace McFarland and G. A. Stevens. Its price is only \$2.00.

SUCCESS WITH ROSES. continued

slightly under the surface keeps the stock away from the light and it is not likely to sprout.

Pruning When Planting

Prune back to three to five eyes on each strong cane, which should be left about five to six inches long, and prune out the small, weak canes entirely. Even the climbers and rambles should have all but two or three main canes cut off when planted and be pruned back to 6 to 8 inches to produce a good growth rather than flowers the first season. All cuts should be just above an eye or bud pointing in the direction you wish the cane to grow, and the cut sloping.

Cultivate early, often, and thoroughly. Cultivate after each rain and after watering. An occasional good soaking, when the ground becomes dry, is better than frequent sprinklings. After September 1 water only when necessary and apply no fertilizer until freezing weather, to prevent a late, soft growth which winter injures more readily than firm, well matured wood.

Winter Protection

Where there is danger of winter injury the Teas and Hybrid Teas should have winter protection. It is advisable for the Hybrid Perpetuals in the north and in sections of sudden and severe change. Soil is the best possible protection. Each winter after the ground begins freezing lightly, mound them up with soil 8 to 10 inches deep. In the more northern sections a mulch of straw or manure is often placed on top of the mound as the winter becomes colder. Long tops may be shortened, but not as far back as you intend to prune in the spring. After severe freezing is over, remove the mound gradually.

Spring Pruning

When the buds begin to swell, cut back the tops of the Teas and Hybrid Teas to sound wood, leaving 5 to 6 inches with 3 to 5 buds. Remove weak shoots entirely. Weak growers should be pruned more severely than vigorous growers. Prune to produce a shapely plant, rather open to allow good air circulation. The Polyanthas, to which the Baby Rambles belong, should have the old and crowding branches cut back near the ground and the remaining branches pruned moderately.

The Hybrid Perpetuals bloom on shoots that grow from the canes of the previous season. If pruned as severely as the ever-bloomers there will be a heavy growth of wood with fewer but larger early flowers. They may be pruned back to about 18 inches, though some growers leave them taller. After blooming, prune again, removing part of the old wood, and many varieties will bloom, though not as profusely, in the fall. If, during the summer, the tips are pinched out when the new growth reaches the desired height it will make a stockier plant with an abundance of flowers and less spring pruning will be necessary. For best results stake the Hybrid Perpetuals with neat but stout stakes and tie them up as they grow.

The Rambles and Climbers should be pruned after blooming. Pruning before blooming reduces the number of flowers that year. The Rambles, or small-flowered type blooming in clusters, bloom best on this year's shoots on last year's canes. After blooming prune out the old wood liberally, allowing the new growth, which has by then made considerable progress, to make canes for next year. The Climbers, or large-flowered type, usually bloom most freely with better flowers on the older canes. They break from the old wood so need little annual



Rambler Roses

pruning except to prevent their becoming too thick and to train the plants. If in time they become too large and thick, renew them by removing considerable of the older wood, allowing the new growth to take its place.

Own-Root and Budded Roses

There has long been a difference of opinion regarding own-root and budded roses, with the tendency in favor of budding many varieties. If all roses naturally produced sufficiently vigorous roots and tops, budding would be unnecessary. Many Teas and Hybrid Teas and some Climbers, Rambles and Hybrid Perpetuals are, if on their own roots, weak growers with a poor root system, some with practically no roots.

Own-root roses are grown from cuttings, hence top and root are the same and they cannot be any more vigorous or have any better root system than is normal for the variety. The only advantage claimed for them is that any sprouts will be of the variety planted. One-year own-root roses are usually grown in the greenhouse in small 2 or 2 1/4 inch pots and sent out in active growth. As they are much smaller than two-year field grown plants they sell for less.

The root of a budded rose is different from the top. A bud is inserted under the bark of a plant that provides the roots, called the stock or understock, and which is selected because it increases the vigor of the budded variety and gives it a better root system. It is grown outdoors from the beginning, hence called field grown, and is shipped when dormant, that is, after frosts have stopped active growth. The only disadvantage of the budded rose, which we think is more than offset by its advantages, is an occasional sprout. Why put up with weak growth and fewer flowers when we need only remove such sprouts? They are readily distinguished by a difference in wood growth and leaf, with usually 7 to 9 leaflets on a stem while most cultivated roses have 3 to 5 or 5 to 7. We prefer budded roses of most ever-bloomers and a few of the others because they are more vigorous and produce better and larger flowers more abundantly. And that's what we grow roses for.

Rose Descriptions

We have endeavored to describe the color as accurately as possible and give some habits of growth. The perfect rose, with good features only and no defects, has not been produced. Some are most beautiful in the half-open bud, others are best in full bloom. Some are of exceptional color and we overlook a slight lack of petals. Some are grown mainly for their vigor and profusion of bloom, others for the beauty of the individual flower. The efforts of rose breeders to produce varieties with more of the desirable qualities has, in recent years, resulted in the introduction of hundreds of new varieties. Some have proven to be real acquisitions and have become standards. Others show real advancement and promise to become permanent additions to the list. It requires testing in many sections to tell whether the newer varieties will succeed over the country generally. A good part of your garden should of course be varieties known to succeed, but if you confine your planting to those you must needs do without many of the newer forms and colors. Part of the fas-



Briarcliff



Souv. de Claudius Pernet

cination of rose growing is in testing each year some not to be found in every garden. Then increase your planting of those you like and try some more.

Fragrance is difficult to describe. While some persons are more sensitive to fragrance than others, there are some roses all would call very fragrant. Others are only slightly fragrant. Between these extremes it graduates so gradually we must be content to simply say fragrant. Roses are more fragrant during cool than during hot, dry weather.

Everblooming Roses Will Bloom the First Year

Properly planted, pruned and cared for, you can't keep Tea and Hybrid Tea Roses from blooming the first year. The two-year budded plants give an abundance of flowers. The Hybrid Perpetuals, Climbers and Ramblers sometimes give a few flowers the first spring but it is better to treat as directed under the heading, "Pruning When Planting," to develop a good plant rather than flowers the first season.

Everblooming Roses

Under this heading we include the Teas, Hybrid Teas, Polyanthas and a few others that furnish a succession of flowers from spring till the frosts of autumn. Cut the flowers with long stems or cut the canes back severely when, or better yet, before they shatter. If several leaves are left on each cane new branches will grow from the base of these and you will get more and better flowers.

The *Teas*, so named from the characteristic delicate tea fragrance, were introduced into England early in the nineteenth century, and were the first of the everblooming class to receive the attention of rose breeders. Botanically, they belong to the Chinese *Rosa odorata* and its forms. As a rule they are hardly as vigorous and are less upright in growth than the Hybrid Teas, and are usually light colored, pink and creamy-yellow. However, a few make good sized bushes, and a few are dark colored. Some Teas are more tender, thought often it is difficult to detect much if any difference in hardiness between Teas and Hybrid Teas.

The *Hybrid Teas* are by far the most important group at this time. La France, introduced in 1867 by Guillot of France, is the oldest known Hybrid Tea. This class is the result of crossing Teas with Hybrid Perpetuals and others until they are now of greatly mixed origin. These crosses have given us greater vigor, more upright growth, larger flowers, buds of elegant form, and a wider range of colors from snowy white through all shades of pink, red and crimson-scarlet, with orange and copper tints.

The *Pernetianas* are Hybrid Teas containing some blood of Austrian Briar (*Rosa foetida*, or *lutea*), of which Persian Yellow is one of the best known varieties in America. The first, and most of these hybrids until his death in 1928, were made by M. Jules Pernet-Ducher, and in his honor were called Pernetianas. They have intensified the yellows, as in *Souvenir de Claudius Pernet*, and have given us the popular orange and copper sunset shades such as *Mme. Edouard Herriot*. Other breeders are adding to the list, for example, *Los Angeles* of American origin. Many catalogs classify Pernetianas as Hybrid Teas.

The Pernetianas have inherited from the Austrian Briar a tendency to lose some of their foliage, particularly toward the latter part of the season. This tendency is being reduced in some of the later crosses and it is hoped that eventually it will be practically if not entirely eliminated. For the present we must tolerate it for the sake of the beautiful and unusual colors. Plenty of clay in the soil and free use of sulphur helps reduce the trouble.

The *Polyanthas*, the most truly everblooming, are seldom without flowers during the rose season. The name means many-flowered. Years ago they were called Baby Ramblers, a catchy name still used though sometimes misunderstood. They do not climb but have large clusters of rambler-like flowers on baby bushes. The colors range from white to deep red, pale yellow and apricot. Hybrids of *Rosa multiflora* and *Rosa chinensis* with various modern varieties, they vary in habit and in shape of flowers, some resembling a Tea rose in form. A few have fairly large flowers. Fragrance is usually lacking or very faint.

They are dwarf and bushy, rarely exceeding 18 to 24 inches, some even more dwarf. This and their constant blooming make them valuable as dwarf shrubs and for flowering hedges. A bright bed, used as one would use geraniums, is beautiful indeed and lasts for years. Cut off the flower clusters as they

fade. While they have gone through the winter here without protection, safety suggests mounding until hardiness is proven in your section.

Hybrid Perpetual Roses

The *Hybrid Perpetuals*, or Hybrid Remontants, are also a large group of greatly mixed origin. In general they are of stiff, upright growth, though sometimes tending to pendulous, the varieties ranging from 3 to occasionally 10 feet high; flowers of all types, usually inclined to flat, the darker colors predominating; foliage dull green, slightly wrinkled, not shiny.

The roses commonly grown in England early in the nineteenth century bloomed but once. When Hybrids were produced which gave another crop of flowers the same season they were called Hybrid Perpetuals. They do not, as the name would imply, bloom perpetually, but early in the season give a grand display, unsurpassed by any of the everbloomers. Some varieties bloom intermittently in a more limited way, or again in the fall, if kept growing freely. The flowers are usually larger, more double and more fragrant than the everbloomers. They are hardy, successful in almost all parts of the United States, except the extremely cold sections and in the far south, and are the roses to use throughout the central and northern sections if winter protection cannot be given. In the far north protection is advisable. While some will bloom moderately the first summer, these roses should not be expected to do their best until the second season. Plant carefully, prune properly and no roses give better flowers.

Hardy Climbers and Ramblers

Roses are not true climbing plants. Therefore, for best effect the canes should be trained some and tied as they grow. When constructing arbors or trellises, remember they are to last for years and that large plants are heavy. Wood supports should be of ample strength and rot resistant. Cypress is excellent. Iron pipe, painted green or some inconspicuous color, is often used and does not seem to harm the plants.

Insects and Diseases

This subject isn't so difficult as it sounds. While we must use several paragraphs, after all it boils down to this: "Use Massey Dust for most troubles." And that isn't so formidable after all.

For chewing insects which eat the foliage a stomach poison is used, usually arsenate of lead as a spray or dust. Used in pow-



Climbing American Beauty, used as a pillar rose

der form with dusting sulphur as noted below, one application protects against both chewing insects and leaf diseases. The arsenate of lead helps keep the sulphur from caking or lumping and makes it adhere better.

For aphids and red spiders, which are sap sucking insects, use a contact poison such as Black Leaf 40, or, if not available, a strong soap suds made of Ivory, Lux or other good soap. Several thorough sprayings are usually necessary. Aphids or plant lice may suddenly appear in large numbers on the new growth. Red spiders, which may be red, green, brown or black, are very small and almost invisible to the naked eye, so their presence is usually detected by an unhealthy, slightly yellowish appearance of the foliage and perhaps small webs. Some years they may give no trouble, others they may require attention. Sulfocide may be used for red spider, and sulphur is sometimes effective.

Black Spot is named from irregular black spots scattered over the leaves. As the fungus develops the small spots enlarge, almost covering the leaves, which drop, the loss of too much foliage weakening the plant. Free air circulation reduces the trouble as the spores, found in the air, soil and diseased leaves, develop only in the presence of moisture. A good means of prevention is to dust or spray regularly, beginning as soon as the leaves appear, so they do not go through a rainy period without a protective coating. The usual preventative is some form of sulphur. Burn the diseased leaves.

Massey Dust, introduced by Prof. Massey of Cornell University, is commonly used on the home grounds and protects also against chewing insects. It consists of one part arsenate of lead and nine parts dusting sulphur, a much finer powder than flower of sulphur, hence more effective. If not obtainable have your druggists mix arsenate of lead and flower of sulphur. Dust in the morning or evening when there is little or no breeze, so it will fog through the plant and settle on both sides of the leaves, which need not be wet. Dust from all sides so all the foliage is protected. If a dust gun is not at hand, place the dust in a thin muslin or cheese cloth sack, tie to the end of a stick to keep it away from the eyes, and beat with a stick. During rainy periods and when new foliage is rapidly developing, every four or five days may be necessary. At other times a week or ten days may be ample.

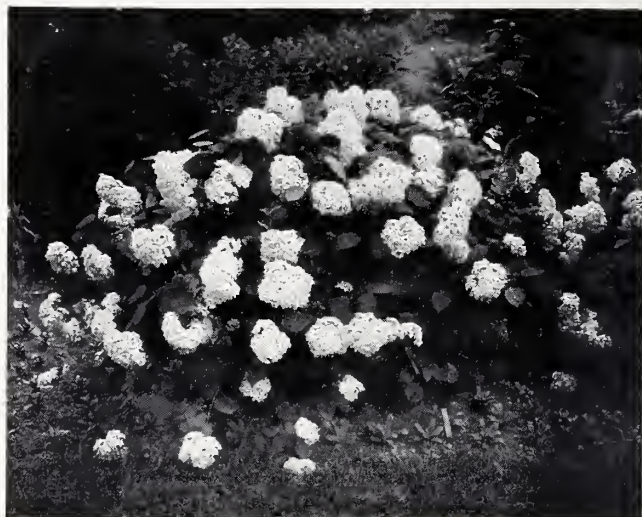
Bordeaux Mixture or Sulfocide may be used as a spray when protection from chewing insects is unnecessary. The former discolors the foliage bluish-green, the latter does not discolor seriously. Do not mix arsenate of lead or Bordeaux with Sulfocide. If they have been used wash the tank thoroughly. In small quantities use one teaspoonful of Sulfocide to three quarts of water. Apply each week from the time the leaves appear. A compressed air sprayer is better than a hand sprayer, as all sprays stick better and give better results when applied with a high pressure, giving a fine mist.

While Mildew seldom kills a plant it injures the foliage and buds. It appears as a felty, whitish coating and is more prevalent in damp, cloudy weather and where air circulation is poor. Massey Dust should keep it under control. If it appears anyway, it may be removed with baking soda dissolved in water. The strength must be determined by experiment.



Globe Arborvitae is naturally globular in form

Catalog describing evergreens, shrubs and flowers mailed on request



This Hydrangea is well named Hills of Snow

Catalog describing and quoting this and other shrubs will be mailed on request.

Cankers, which appear as pale yellow, pale brown or reddish spots on the bark, are fungus diseases, entering through wounds. They gradually enlarge, and if severe the wood becomes dried and the bark cracks. Burn the affected wood. Cut below the injury, using care that the shears or knife does not touch a canker and start new infection. In autumn when the leaves have fallen and again in the spring before growth begins spray plants and soil with Bordeaux Mixture or lime-sulphur.

Black Leaf 40, lime-sulphur, Bordeaux Mixture, etc., are usually purchased in condensed form. As one need only add water as directed on the package we have not given formulas.

Farmers' Bulletin No. 1547 on Rose Diseases, Their Cause and Control, treats the subject more fully. A copy may be secured from the Superintendent of Documents, Washington, D. C., for 5c, which must be sent in coin or money order.

"I cannot afford to endow a bed in a hospital," said a woman to me not long ago, "so I do what I can to give joy to those who are forced to occupy the beds that already exist. I send a bouquet a week to three hospitals with instructions that the flowers be given to the sick who have no friends, or whose friends send no flowers." It is wonderful what joy can be given by means of a small sum invested in beauty.—The Blue Flower, House Organ of Henry Penn, Boston.

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