

Where growing seasons are short, or varieties are very poor plant producers, like Chesapeake, closer planting is advisable.

If the rows are not enough higher than the spaces between them to afford easy surface drainage when winter sets in, there is danger of snow water being held upon the plants sufficiently long to drown them. Where the winters are mild, as south of Washington, D. C., this danger is much less.

Soon after the ground freezes protect the bed by a covering of straw, marsh hay, strawy manure, or some other harmless loose material, preferably free from the seeds of weeds. Leaves, except pine needles, are likely to smother the plants. In the latitude of Philadelphia 40 lbs of loose, clean straw or marsh hay or 150 to 200 lbs of strawy manure, evenly distributed, supplies protection for a square rod and the plants are able to push through this covering unaided in spring. Further north the protective covering should be made heavier, according to the climate, which may necessitate removing some of the mulch in spring.

The Choice of Varieties

VARIETIES that fruit well when planted alone are called staminate. Those that do not fruit properly unless some potent staminate variety that blooms at the same time be planted near are called pistillate; if such be grown, at least every third or fourth row should be staminate. (In the catalogues B or S indicates a variety that is staminate, and P the pistillate.) Senator Dunlap is a good pollinator for midseason bloomers and William Belt for later bloomers. Other pollinators would be better for some varieties.

An experienced neighbor or a near-by nurseryman with similar soil can best advise the beginner. In the absence of local information, choose adaptable varieties of good quality, covering the season.

As an early berry, Progressive (B), one of the best ever-bearing kinds, is far superior to and only two or three days later than Michel's Early, the standard early variety. Senator Dunlap (B) and Haverland (P) are good for early midseason. Marshall (B) and William Belt (B) are good late midseason kinds. These are all adaptable and range from good to excellent. Gandy is the standard very late kind, but requires heavy soil.

Insects and Diseases that Threaten

TO avoid the white grub, plant Strawberries only on land which has been cultivated at least the year before. If healthy plants wilt in the summer, remove them and dig carefully—usually a grub worm will be found.

The leaf roller attacks the leaves, and the leaf spot causes reddish brown spots. Both may be controlled by spraying (I have used Pyrox) according to directions just before and after blooming, and by removing and burning the old foliage immediately after the crop is gathered. In case a spray is needed for the leaf roller when many of the berries are half grown, use 1 oz. of fresh hellebore in a gallon of water.

If any aphids (plant lice) are found on the roots of plants to be set out, steep some tobacco an hour or so in water and immerse the plants in a moderately strong solution for fifteen minutes.



THE NEW TRAILING ROSE MAX GRAF

W. C. EGAN

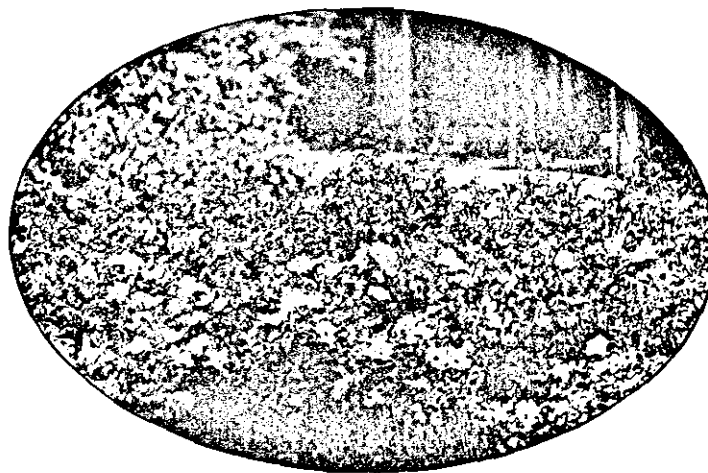
A NEW hardy trailing Rose which, I think, will be used by landscape gardeners as a ground cover and over embankments has been flourishing in my garden and is worth a record. It made its debut as a chance seedling in a Connecticut nursery, and was named Max Graf after the foreman who discovered it. Only the insect that pollinized its parent and the bird that distributed the seed know its origin, but a study of the flower and foliage seem to point to a union of the blood of the rugosa and Wichuraiana, both of which were growing in the nursery. The comparatively small and shining foliage bespeaks its relation to the latter, and its rugged aspect indicates a relationship to the rugosa, while the flower—two, to two and a half inches in diameter—resembles the best pink form of that sturdy shrub.

Max Graf is a June and July bloomer, at which time it is completely covered with bloom, but even when not in flower it makes a handsome show on account of its clean, deep green,

shiny foliage which remains in good condition until frost—its beauty unmarred by attack of mildew, black spot, or insect. The rugosa blood gives a constitution hardier than Wichuraiana which often freezes back here at Highland Park on the shore of Lake Michigan.

The new shoots of the hybrid start upward and at a height of some two feet, arch over, finally reaching the ground on which they trail ten or more feet, rooting at the joints, but not quite so freely as Wichuraiana. Where the latter is perfectly hardy, a combination planting of the two should make a handsome mass.

Trained up and used as a "pillar" Rose, Max Graf should be a boon to Rose lovers living in a climate where the more tender climbers cannot be grown without winter protection. Fortunately the Dreer Co., and some of the commercial growers have seen and appreciated the capabilities of this Rose and offer it, so that it is procurable through the regular dealers.



CONVERTING BARE SPOTS TO BEAUTY

In habit like Wichuraiana, but hardier, the new trailing Rose Max Graf is suggested for a ground cover and for decorative use in general. Mr. James H. Bowditch, Conn., with whom it originated, thinks it is probably a cross between rugosa and setigera. Flowers pink