

Garden and Orchard.

Raspberries and Blackberries.

On rich soils the black cap raspberries and blackberries, especially in moist seasons, make a strong, coarse growth of wood, not well adapted to endure the severe cold of our winters or the drying winds of our springs. This may be entirely obviated by a proper systematic pruning or pinching off of the tips of the young canes as they grow. With the black raspberries the tips of the young canes should be nipped off when two to three feet high. This will cause the canes to throw out lateral branches, and the tips of these should be pinched or clipped off when they have grown about a foot. Twice pinching back is sufficient in field culture, but in the garden this may be done much oftener, greatly to the benefit of the plants and their next year's crop. The best implement that we have used for clipping back is a light sharp butcher's knife. A quick stroke downward, cutting the canes easily without any jar. An active person can go over a row of these berries very fast the first cutting, when cutting in the main canes, nearly as fast as he would walk. Cutting in the side branches is a little more tedious, but no great task.

With blackberries the same general course can be pursued, but more judgment is required; the varieties must have different treatment, for in their growth they vary much more than the black cap raspberries, and no special rules can be laid down for the summer pruning of different varieties; for some varieties would be rendered nearly barren by the practice that would be found the best for others. Perhaps the best general practice for the novice would be the second year after planting to cut the tips of the young canes when they are two feet high. This would cause them to throw out laterals. With the Kittatinny variety, these should have their tips clipped off as soon as they are from six to eight inches long, and then allowed to grow. Any cutting back of this variety after it has matured its growth, we have always found to spoil the next year's crop. But this variety (the Kittatinny) has become so liable to disease—the "red rust"—that it has about gone out of cultivation. If it would only remain healthy we would yet consider it the most valuable of blackberries. For with thorough summer pinching or clipping back, it is about as hard as the hardiest, and its crops are so immense, of such perfect quality, and ripen up so completely that it is hard to give it up. We still find it to withstand the red rust on soil composed of almost clear sand. But on clayey soil it seems useless to plant further. The Snyder is unquestionably the blackberry for the North-west, and we should be greatly pleased to have the summer treatment given it by some of our larger growers of it for market. We have practiced with it two different modes of summer treatment: The one to cut back the young canes, or to stop them when about two feet high, and then let them grow; and then the next spring to cut in the side branches about one-third; the other, to let the young canes grow as they will, and the next spring cut them back one-third; for we find that the Snyder, if not cut back in the spring, will set more fruit than it can mature.—[Prairie Farmer.

The Tuberose.

The tuberose is easily cultivated, provided the temperature is right. Once well started they grow and bloom as freely in the open ground as the gladiolas, but they require a high temperature, or at least a heat of 70 to 80 degrees at the roots to forward them during the early season of the year. The bulbs may be planted in three-inch pots, one in each, and then plunged in a good hot-bed. In a few weeks they will start into growth, and subsequently repotted and grown in six-inch pots, or may be turned out into the border to bloom; such as happen to be late, and likely to be overtaken by the chilly nights of September, may be taken up and potted, and carried into the parlor or greenhouse to flower.

It has been the custom, because some authors have asserted that the old roots were worthless after blooming, to throw them away. This, however, is an error. If the roots are carefully ripened off when done blooming, and kept in a warm, dry place in winter, they may be started early in spring and if planted out in good rich earth will bloom freely.

Get good firm bulbs, not too large; pot them in January or February, for early bloom, and from March to June for a succession; use three-inch pots in almost any kind of soil; as soon as well started, put into four or six-inch pots in a compost of rich loam and old manure; if in four-inch they will have to be repotted again into six or seven inch. About the first of June plant in open ground, or plunge the pot as the flower stems grow; tie to neat stakes, as the wind is likely to break them off. For later flowering the roots may be potted from the last of June to August, and kept in the coolest place, to retard them as much as possible. Early in September remove to a house where the temperature is 45 degrees or more at night, and they will bloom until Christmas. The new variety called the Pearl is quite an improvement, as it grows only about two feet high, and the flowers are larger and finer. A good bulb should produce about three dozen flowers.—[Mass. Ploughman.

A Tub of Lilies.

Those who admire our beautiful water-lily—*Nymphaea odorata*—and cannot have a pond will find that much enjoyment may be had from an old wash-tub arranged after the following plan: No matter how warped or rough the tub is so it will hold water securely; a barrel sawed in half will do, though not convenient to move without handles. Set the tub up a little ways from the ground on bricks or blocks to preserve the wood, half fill it with rich garden soil, in this imbed the root, one is enough for a tub; fill carefully with rain water so as not to wash holes in the soil; more water must be supplied when needed, to replace that lost by evaporation. Some of the common duckweed or any other small water plant and some minnows in the water, would aid in keeping it fresh until the lilies became established.

The birds are partial to this miniature pond, and, if it is not guarded, will appropriate it for their morning bath—pecking and breaking the lily leaves. To exclude them take some shingles, saw them once in two cross ways, split the pieces into strips about an inch wide and tack them around the edge of the tub with brads, putting two brads into each strip; this forms a paling sufficiently firm and high to keep the birds off the edge of the tub and but few will have courage to fly down inside of it. The flowers of this lily are usually pure white, fragrant, and semi-double; they open only in the forenoon and each flower opens for three successive mornings, it then closes and then sinks below the surface of the water to mature the seed. The plant remains in bloom from June to September. The roots if not obtainable from some neighboring waters, may be found at most any of our reliable florists. It is too late to have the lilies, if planted now, bloom this summer, but preparations may be made for an early start next spring. In the fall when freezing weather begins, the water in the tub must be allowed to dry down to the soil; the tub can then be moved to a cool, dark cellar, where the plants will keep perfectly through the winter.—[J. M. M., Ex.

Ornamental Hedging.

E. F. Ellwanger of Rochester, writing on the above topic in the American Cultivator says:

In our cities hedges may occasionally be seen as division lines. They are mostly arbor vite, but in winter the color is objectionable. When used as a substitute for the many fences that are pulled down, I consider Japan quince (*Pyrus Japonica*) a very appropriate shrub. It can be pruned in any desired form, and its beautiful flowers in May will give any place an inviting appearance. This shrub will answer in front, while a hedge of roses, or some other flowering shrub, would do well between neighbors.

Take for instance the beautiful hybrid perpetual roses; out of the many hundreds of varieties many could be selected that would form a really ornamental hedge, while "the girls" would certainly have a good chance to make rose bouquets. A hedge of roses would attract the attention of every one passing by; the whole lawn would have a lively look. But what beyond the rose hedge? Grape vines, I say. Why could not you and your neighbors have a hedge of vines as well as roses? Both the vines and the bushes will stand pruning; both are ornamental and useful.

And here I would remark that in my judgment, in many fine places, there is too much space devoted to lawns. I have actually seen places where

every tree and shrub was cut down to make a lawn, just because an extensive lawn was the prevailing rage. There stands the house isolated, and all you can see in the back-ground is the post for the clothes-line. Now for a rose-hedge you may choose either "John Hooper" or "Gen. Washington," "Madam Lafay" or "Pius IX," or any other. For any ornamental hedge of vines I should take the Delaware grape; its foliage is graceful, and its growth is just rank enough, while it is very hardy. For a wild hedge, on which you do not mean to bestow any care, take the Clinton grape. If you want good grapes at the same time, and wish to keep it in trim, Rogers' No. 4, 15, or Salem, are good. I would also recommend the Brighton, with its fresh and beautiful green.

Planting Nuts as Tree Seed.

The gathering of nuts for purposes of seed should be done as early as possible after their maturity, as the least possible amount of drying by the influences of the atmosphere is injurious to them as germs of future plants. The nut gatherer must be a close and discerning observer of nature, as in the treatment and preservation of nuts some require treatment quite different from that of others. Some must be kept studiously dry and away from all outside moisture during winter, while others must be studiously have a liberal supply. Again, some must be kept cold, and exposed to frequent freezing and thawing to subdue their obstinate coverings, while others must be carefully be kept out of the reach of frost. And still again some may be advantageously planted in their seed beds in the fall of the year, while others will not endure this treatment with impunity.

But to particularize, it will perhaps be best for our purpose to make some special statement as briefly as possible relative to the management of each kind of nut for seed purposes.

English Walnut, *alias* Maderia Nuts, (*Juglans Regia*.) Nuts ripe early in October. Dash from the trees, gather and place in thin layers on the ground, and slightly cover with damp earth to keep moist and secure from the atmosphere during the winter. In early spring take out and plant in a seed bed six inches by two feet, keep clean and protected from the severity of the sun. These nuts will not do as well in this country as our native variety, but in favorable spots the young trees will do tolerable well, although but very few are now found growing amongst us.

Black walnut (*Juglans nigra*.) and Butternuts, (*Juglans cinerea*.) are native forest trees of fine proportions. Nuts ripe the latter part of October or first part of November. After they are matured and loosened by the frost or shaken down by the wind, they must be gathered as soon as possible and protected from the atmosphere, and planted early the following spring. Fall planting may also be adopted, but spring is greatly preferable, as thereby solidifying of the ground and encrustation is mostly prevented.

Hickory Nuts, (*Carya alba*, and *C. amara*.) are treated much like the preceding. The first is an exceedingly pleasant and nutritious food, and is greatly relished by both man and beast. The nuts are slow in germinating, and for a year or two make a slow and feeble growth, but with patience and care they eventually make fine trees.

Beach Nuts, (*Fagus sylvatica*.) are produced on native forest trees of noble growth. The nuts ripen in great abundance early in October, and readily fall by the influences of frost and wind. On low spreading tree, they are dashed and gathered on sheets and preserved in dry sand out of the way of frost, and sown very early in the spring in well prepared seed beds in rows one foot apart. They readily germinate and form fine trees in a comparatively short time.

Chestnuts, (*Castanea Americana* and *C. pumila*.) also Spanish Chestnuts, (*C. Vesca*.) and the ornamental and beautiful lawn tree, the Buckeye or Horsechestnut, (*Aesculus hippocastanum*.) are all the fruit of forest trees of deserved and growing popularity. The first three sorts are exceedingly relishable, and are much used for food. Nuts ripe in October or November, and will readily fall by the action of the wind after frost. May be gathered and kept in dry sand out of the way of frost. They readily germinate in the spring, and may be sown in rows one foot apart and six inches in the rows in a well prepared and liberally enriched bed. They may be transplanted in the nursery rows at one or two years of age, and need some protection as they are a little tender while in their infancy.