

Garden and Orchard.

Winter Protection.

BY HORTUS.

Too much cannot be said about the advantages of carefully protecting everything against the severities of our long winter. On glancing at the list of plants and trees, we find but very few out of the many that do not need some care and protection.

Most people know that in winter the sunshine does more damage than the frost; or, in other words, if you keep everything frozen up after the hard weather once sets in they will come out all right in the spring. It is the sunny days of March, with their freezing nights, that play the mischief. To commence with the orchard, the ground should receive a good mulching of manure or other litter—particularly orchards exposed directly to the sun. The mulching, shading the ground, keeps the frost in and the roots dormant, thus keeping the tree from starting out in growth till the weather becomes settled and warm. Another thing is that many and most of the working roots of a tree are close to the surface and kills them entirely, consequently many a fine tree in free vigor of growth and fruitfulness becomes prematurely checked and takes a long time to recover if ever. We say, then, be sure and mulch the orchard, but first of all see that it is well drained. Open surface drain, so as to freely carry off the water which might otherwise lodge in the depressions of the ground. This is very important, and how seldom is it attended to! The common practice is to gather all the fruit and then never give another thought to the welfare of the orchard till the next spring. Now is the time to do the work, and you will find plenty to do if you look for it. Pruning we would leave till the spring; that is not necessary now, but set to work and grub up the rubbish that is growing in the fence corners. Clear away the weeds and dead branches that have been collecting in odd places; these harbor vermin that will only sally out in winter and girdle your trees. Have a thorough house-cleaning, so to speak; then open the drains, mulch the ground and fix up the fences. An odd post here and there wants removing, or a few rails want adding; do not put this off till spring, or else it will never be done. The orchard requires good fences more through winter than summer. Cattle browsing among trees do great damage. Having attended to the foregoing, we may leave the orchard till spring, and now for the garden. Here we find the same work wants doing, namely, cleaning up, draining and mulching. Grape vines should be laid down and covered; a few pegs crossed will hold the canes, and the soil can be dug upon them like pitting potatoes. All this, of course, to a great many readers is a very old story, but there are still many who are anxious to know what to do so as to carefully protect their plants, and many who do know require to have their minds jogged about their work; so much for an apology for repeating old stories. Raspberries should be bent over and their tips just covered with soil; this will be found an ample and sure protection, and can be applied to plants having pithy stems, as blackberries, roses, grapes, &c. Why it does protect them we can hardly say; we think, however, the reason is that near the earth's surface the air becomes denser, that the reflection of light causes the temperature to be a few degrees warmer than say three feet from the surface, or that the inequalities of the soil and intervening objects prevent freezing currents of air from destroying the buds. Another advantage is that the snow becoming lodged amongst the branches gives good protection.

Market gardeners find pine brush a capital thing for covering strawberry beds and border plants, also for covering winter spinach. Beds of herbaceous plants, and all kinds of bulbs require plenty of long stable manure spread over them. With a little protection, many choice evergreens may be grown by us, now thought to be too tender. For this purpose rye straw or corn stalks answer admirably. Place the straw erect on the ground, evenly around the tree or plant; this tie securely; then put on another layer overlapping the bottom layer a few inches; this again secure, and so on till the plant is covered; around the base pile the soil up neatly in mound form and pat smoothly with back of spade. Roses want cutting back hard, say within a foot of last year's growth, and cover with litter. Boxwood edgings should also be covered up with dry litter. Fallen leaves, mixed with straw, to hold them, make the most natural protection. Bulbs of all kinds should be covered 3 to 4 inches deep with straw manure. What is the best way to keep apples, is a question often asked. The first essential is to have them carefully assorted, and pack away in clean barrels and head up; place in dry cellar and keep cool and dark. Have a thermometer so as to regulate the temperature, which must be kept even and at about 34° Fahrenheit, almost freezing is the proper point. Avoid all draughts. If these few simple rules are carried out, apples will keep till spring, plump and fresh. Another method is to pack in barrels and pit out in field. Lay the barrels evenly together, place sound boards to keep soil from discoloring the barrels, and cover all with earth about 18 inches deep.

A TONIC FOR FLOWERS.

Ladies who have house plants should save the soot from the stovepipes and chimneys at the semi-annual house cleanings, as it is a most excellent fertilizer. Tie a pound or two of soot in a cloth, put it in a tub of water, let it soak until the water becomes dark colored, then apply the water as a tonic to the plants once or twice a week.

TUBEROSES

when taken up in the fall should be well dried and laid away on shelves in a warm place for winter. The young bulbs or offsets, both of tuberose and gladiolus bulbs, should be removed either in the fall or before planting in the spring. If old bulbs are planted with the young ones attached the result is a mass of leaves and no flowers. Tuberoses will not endure cold or moisture, either in the ground or when stored, the result of exposure being the decay of the embryo flower-stem within the bulb. Bulbs in which this change has taken place will produce abundance of leaves but no flowers.—[Mich. Farmer.]

Neglected Fruits.

A correspondent of the Gardeners' Chronicle writes: Among the most neglected of our most useful and hardy fruits may be mentioned the gooseberries and currants in their several varieties. Neglected, because they are allowed to occupy the same spot of ground for years, until the soil is actually worn out and the crops deteriorate in consequence. Now is a good time to give such matters consideration. It is not necessary to destroy the bushes if they are at all worth keeping, but it will infuse new life into them to have them transplanted into fresh soil. Such operations have to be anticipated if there is to be anything like system in a garden, because changes affect the arrangements for crops other than those immediately concerned. The main supplies of bush fruits should be, as far as practicable, in rows of clumps, where a net can be made to render good service against the attacks of birds. Bush fruits will undoubtedly be more in request in the future than they have been of late years, and attention should be given the selection of varieties which will yield a succession of fruit over the largest possible period.

The Vegetable and Fruit Garden.

The first requisite is, have the soil in proper condition. If not naturally dry, orchards and gardens should be drained. Trees and vegetables cannot thrive in a soil where the roots are chilled with stagnant water. Wet ground always holds the frost, and this will kill the fruit buds, just as it does your early vegetables. Drained ground is always in a better condition than undrained. The soil for vegetables and for fruit trees must be fertile. Many farmers fail to raise fruit and vegetables because they do not make the ground rich enough.

Many varieties of fruit trees, vines and plants require a large amount of mulching and manuring to obtain the best results.

The grape-vine requires a very fertile soil. The land for a vineyard requires good deep cultivation and fertilization, and after planting, when in bearing, it should have frequent applications of manure.

Currants and gooseberries require annual cultivation and manure, and in the summer, mulching. Raspberries also require regular applications of manure. The strawberry requires a top-dressing of well-rotted manure. Without manuring, as well as close attention, we need not expect fruit or vegetables.

CELERY IN WINTER.

There are various ways of saving celery through the winter. It may be put in long, shallow, narrow pits as cabbage are often kept. It would be better, if pitting, to cover the tops and the sides of the pits with litter. A good way to save celery is the following:—Dig them out of the row where they grow with a good ball of earth attached to each; place them standing on the cellar floor some rows in breadth, cover the sides with light, dry earth. In short, let them stand as they grew in the garden, but three or four, or half a dozen abreast. Let the green tops be without covering. You can easily take them up as needed, fresh and crisp, as from the garden bed.

Asparagus beds require a mulch of from four to six inches of good stable manure. This, retaining somewhat of the heat, will cause the plants to start earlier in the spring. A top-dressing of salt is of much benefit, as the asparagus is a marine plant.

In 1850 there were 25 florists in New York. To-day there are 500, not to mention the street stalls, and it is estimated that their sales reach \$4,000,000 worth a year. About 1840, if a wealthy citizen gave a dinner party, one large bouquet on the center of the table was considered quite enough, and on such a holiday as New Year's the hostess was satisfied with a couple of nosegays on her mantelpiece. For the New Year's celebration of 1840 the great florists of the day sold \$200 worth of flowers, and the sales of the whole city did not amount to \$1000. It is estimated that \$60,000 worth were used last New Year's Day, and Mrs. Paron Stevens alone had blossoms to the amount of \$3000 in her reception and dining-rooms.

M. Fautrat, a French naturalist, has obtained some valuable results by a four years' investigation into the relation between forests and rainfall. He finds that it rains more abundantly over forests than over open ground, especially when trees are in leaf; that the moisture of the air over forests is greater than that over open ground; that the leaves intercept from one-third to one-half of the rainfall; and that the shelter of the trees so restrain evaporation that the earth is moistened four times as much as on open ground. Pine and resinous woods he finds to be pretty powerful in attracting rainfall, and the water collected in a year above the pines was nearly two inches greater than that measured on surrounding open ground.