Practical Thoughts on Windbreaks.

D. N. LONG, IN POPULAR GARDENING.

At no other season can the value of a windbreak be so appreciated as in the winter. Its very presence gives to a home a look of coziness and comfort, while if it be rightly located on the windy side, it serves a most economical purpose as well, in the saving of fuel and health, and of teed for live stock.

Not only with the present low price of that best of screen trees, the Norway Spruce, should all farm buildings be well protected by belts of these, but it would prove a paying investment to provide lines of such to the windward of each field or lot. Here they would serve the several purposes of protecting the crops in the winter by preventing the snow from drifting off and also from the drying winds and storms of summer. A spruce wind-break would make an excellent line fence that would last a life-time, and would often save over-winter crops from heaving, by by keeping the snow on it.

On the garden and fruit farm, especially, a good spruce wind-break on the north and west sides would serve as the best kind of a protection, and indeed would promote earliness even more than the much coveted slope to the south-east. A wind-break 18 to 20 feet high is not only a very effectual wind-break, speaking in direct terms, but better than all this it leaves the snow nearly on the level and evenly spread over the surface, instead of in drifts, thus securing a winter mulch in snowy sections.

EFFECT ON THE WIND.—The degree to which a well-grown evergreen belt will break the force of the wind is most remarkable. Even when a storm is raging and the wind has acquired a speed of 40 miles an hour, scarcely the least current will be felt to the leeward of such a living barrier. That much of the complaint against tender, short-lived and unprofitable fruit trees, bushes and plants, due to the unprotected condition of fruit plants is now well understood by our wisest horticulturists. Another point in favor of protected orchards is this: Much of the best fruit that grows necessarily becomes windfalls, where there is no adequate protection from winds, because the largest and finest specimens are usually the first to fall before the force of the wind.

For the early vegetable garden a wind-break is of inestimable value. By its presence the severe cold storms and bare ground of winter, the cold raw winds of March, the drying wind and severe storms of midsummer, and the cold November blast, could all be avoided. Aside from the consideration that early vegetables could be grown to be much earlier, and it may be said that damage by wind to the glass of the hot-beds and cold frames would also be avoided.

STARTING WINDBREAKS.—Is the most universal absence of such a valuable adjunct to the fruit farm and garden to be laid to high cost? This cannot be, for the price of evergreens and especially of thrifty young nursery scedlings is by the quantity really ridiculously low. If such are procured and brought along on the premises the cost really needs hardly to be considered.

The one fact that more than any other may account for much of this seeming neglect, no doubt, is the poor success that so often attends the transplanting of medium and large evergreens especially. The fact is not to be disregarded that as compared with deciduous trees,

evergreens as a class are very susceptible to injury from improper handling between digging and transplanting. But on the other hand, by right methods, there are no easier trees to have grow. The great and only secret is, keep the roots always moist and protected from air and sun; exposure to a drying wind or sunshine for even but ten or fifteen minutes is almost certain death. It is for just this reason that the average sized nursery evergreen that is shipped succeeds so poorly. And it is the one strong reason why, if this kind of stock cannot be obtained from a nursery close at hand, it should by all means be procured in small sizes, such as can easily be handled and packed, to be kept moist and then be grown on the place until large enough for permanent planting. Indeed, the smallest sized seedlings with less top than root and with no stiff side branches can be so readily and compact'y done up that they can even be received with safety by mail. It need net be said that the cost of such is very insignificant.

DISTANCE TO PLANT.—For the purpose of a wind-break alone, Norway spruce can be planted from 2 to 6 feet apart, according to the means to be expended and the haste for shelter. In time 6 feet apart will make a complete shelter, especially for orchards. If also wanted to turn stock, the trees should not be planted farther than 3 or 4 feet, and then by attaching a couple of barbed wires to them when 6 or 8 feet high a good fence, as well as wind break, will result.

While some other evergreens besides the Norway spruce make good wind-breaks, this variety being perfectly hardy and making rapid growth on almost any kind of soil, and is not easily injured by trimming, is pre-eminently the best for general purposes. The American Arborvitæ makes a good hedge, lut is more liable to be broken by snow while young. It is also of slower growth, and requires to be set closer, and loses its bright green color in the winter season.

In writing of this subject the editor of the Country Gentleman says:-Now that the season for transplanting trees is approaching, it may be well for owners of farms in regions liable to be swept by hard winds, to examine into the advantages of providing shelter for their fields in the form of belts of timber trees. This protection would be of great use where land has been reduced in value and its crops by stripping it entirely of the original forests. By setting the right kind of trees, valuable timber will be afforded in twenty years; and by planting the belts two or three rods wide, one-ha'f of the width may be cut at alternate periods and thus always have a belt growing. We have seen several striking instances where such shelter has proved of great benefit by increasing the growth of crops, and by preventing their destruction from the sweep of storms. They are also a benefit to the animals which graze such farms, and they would often add greatly to the picturesque appearance of the country.

The exports of potatoes from Canada during the last fiscal year were in round numbers 1,500,-000 bushels, of which 1,276,000 bushels went to the United States at an average cost of forty to fifty cents per bushel. Prince Edward Island furnished more than fifty per cent. of the quantity, and the balance came from the other maritime provinces.

Burning Strawberry Beds in the Spring.

The most thrifty bed I saw was where a spark from a passing train fired the mulch and burned it off in spring-there was not a sign of rust, not a leaf perforated by insects, and the plants stood nearly a foot high, with dark glossy foliage and every sign of vigor. The eye could easily trace to a foot where the fire ran. Many growers practice and recommend burning over the beds at the close of the picking season, and as there are so many insect enemies to contend with, and probably fungi, there is little doubt but it is an excellent plan. I believe, however, that burning in spring would be better, and the only objection to it is that the berries are left without mulch or must be mulched again, but mu'ch can easily be supplied to a family bed. The advantage of spring burning is that it disposes of the enemies of the crop before they have any chance to do any damage. I recommend that each grower try burning a spot this spring and carefully note the

Grape Grafting.

As regular as the season comes round I am asked to describe the mode. By the time this gets before our readers some who are in a hurry may have already done the work. After many years of experience, doing the work at all times, from the time the frost was out of the ground, until the vines have made shoots a foot long, with varied success, I have come to the conclusion that the best time is when the vines have started to grow, the grafts being kept in a cool shady place so that they were a little behind the stock in starting. To keep them entirely dormant in an ice-house, as some recommend, is wrong. I have had the buds on the grafts swollen ready to burst when inserted that started to grow in a week after. Clear the ground away from the root three or four inches deep, saw off at a smooth place at the bottom. If no smooth place can be found, saw into the stump instead of splitting, as usual. A thick, wide-set saw I prefer to the knife, even in a straight stump. Shave your graft to fit the cut with a shoulder, tie if the stock is less than an inch in diameter, then fill in the earth carefully, press firmly, but do not move graft. Hill up to the upper bud, stick a peg one inch from each graft on one side, always on the same, so you can tell exactly where the graft is. Then cover the eye over with a handful of sawdust; throw a little mulch on and leave it until the grafts begin to grow. I use two-eyed grafts, unless the wood is long-jointed and thick, when one eye will answer. When the grafts begin to grow the suckers must be kept off. As soon as the graft begins to grow it must be tied up to a stake to keep the wind from blowing it down. In this way I nearly always get fruit a little sooner than when I buy a small vine. Have now strong vines of Empire State that were set in spring of 1886; bore fruit last year, while three vines planted the year before that cost me six dollars, have not borne a bunch of fruit yet, and not much show of doing it the coming season. I cannot see the policy of digging worthless vines up and planting others in their place. Graft them with something better.

GRAFTING WAX.—How to make this is often asked, and while there are many receipts given, the one that I like best after forty years of experience is made as follows:—Use 1 pint linseed oil, 4 lbs. resin, 1 lb. beeswax. Melt all over a slow