

or ten minutes. The emulsion, if perfect, forms a cream, which thickens on cooling, and adheres without oiliness to the surface of the glass. This should be diluted before using with 9 times the quantity of water, making in all about 30 gallons of wash. This makes an excellent application for the limbs and branches of apple trees, proving effective on such insects as the scale bark louse, etc. The best time to do this is early in June.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Shade Trees.

BY J. D. NICOL, CATARAQUI, ONT.

The number and distribution of trees and shrubs about a country residence or suburban villa form an unerring indication of the taste of the owners or inhabitants. The many different varieties with their peculiar foliage and their infinite diversities of form, attract the eye and command the admiration of every right-thinking, intelligent person. There is, perhaps, nothing in nature more conducive to the love of home than the trees which form so important a part of the landscape with which the family were familiar in their youth.

The love of trees, however, is not a universal sentiment, otherwise many country homes that are now treeless, bleak and barren-looking, would be sheltered, shaded and beautified.

My object in writing just now is more particularly with a view of trying to correct some mistakes that are made in regard to the arrangement of shade trees, and the care of them after they are planted. Having been taught in my youth how to plant and prune trees, I hope to be able to offer a few suggestions which may perchance be of use to some of your readers.

One mistake we very frequently see made is, in planting trees too thickly, or rather in allowing them to remain too thick as they increase in size. Where shade and shelter is immediately desired, it is always advisable to plant thickly, for it is a well-known principle in forestry, that trees, when very young, do best when grown closely together; but allowing them to grow closely until they completely or even partially destroy one another, is such a great mistake that one can hardly believe it is often committed; yet it is no uncommon thing to see a thicket of shapeless, sickly scrubs, occupying a space sufficient only for one fully developed, well-formed tree. Now in order to derive full benefit from shade trees, those intended to be permanent should be planted first at distances apart 30 or forty feet, according to the requirements of the different kinds; then such as are desired for temporary shelter and shade may be planted in between, to be thinned out as soon as they begin to crowd one another, or to in any way injure the growth of the principal trees; thus securing better and more beautiful shade from a few healthy well-formed trees than from a thicket of half-dead, ill-shaped ones. Trees are beautiful only when they are well-developed and in healthy condition.

Planting too close to the dwelling house is another common error, seldom realized until too late. Shade in hot summer weather is essential to the enjoyment of fresh air out doors; but shading the house so as to exclude the purifying influence of the sun, is a mistake the evil effects of which many seem to be unaware of. Trees grow imperceptibly when we are sleeping as well as when we are awake, and almost before we are aware the branches of the closely planted trees are over-hanging the house, injuring the health of the inhabitants. One becomes fond of a tree he has planted and seen growing for years, and is re-

luctant to lay the axe at its root, and even if he makes up his mind that the sacrifice is necessary and wise, he is apt to be prevented by the sentimental pleadings and tears of the women of the household, though they may be growing pale and weaker day by day, and though their children may be growing up puny and white, like potato sprouts in a cellar, all on account of the trees, they refuse to have removed. This affection for trees, especially those planted around the home, is very creditable, and should be encouraged to a reasonable extent; but the unreasonable gratification of it is working harm in many instances. If people would be strong, healthy and happy, they musn't live always in the shade. In some cities there are streets which the sun of the longest days of July never penetrate, and houses with bed-rooms and living rooms into which the sun never shines, and we know by the wan and sickly look of the inmates, they are not destined for long life; yet they will persist in pining away in the shade rather than avail themselves of the benefits of the glorious unlight and pure air which their creator gives free to strengthen and invigorate.

Street trees are generally grown far too closely together, consequently very few graceful specimens of any kind of tree is to be seen in cities. Elms of thrifty growth form heads of from 30 to 50 feet in diameter; maples and lindens from 30 to 40 feet, but they are often seen growing to large size less than 15 feet apart, consequently never in good shape, and nearly always declining early. If street trees were planted 15 feet apart and every alternate one removed as soon as they begin to crowd, the remaining ones would become ornamental and live to a far greater age.

In connection with this subject there never was a more stupid mistake made than in allowing trees to grow up with two heads. This was more particularly noticeable in the ice-storm that in January last prevailed in eastern Ontario, where many trees were split to their base, resulting from the great weight of ice which formed on the tops.

Common sense demands that deciduous trees be neatly trimmed, and one would suppose good taste would suggest proper form. Yet we very frequently see them growing in this objectionable shape with one great crotch, forming not only an ugly-looking tree, but one that is liable to be split with the weight of its own foliage, or by strong winds or by ice-storms, and is but short-lived under any circumstances, as compared with a properly-formed tree with but one head. If when lifting young trees out of the forest more care was taken to select only stocky trees that did not need beheading, there would be less likelihood of having these objectionable crotches. They hardly ever occur except on trees that have been cut back, and never on properly-grown nursery trees. In any case they could be prevented by judicious pruning while the trees are young.

Fast-growing, soft-wood trees are short-lived. The yellow willow may be made to serve a good purpose as a temporary wind-break, but never as a shade tree; for no sooner has it attained any considerable size than it begins to die, and dead branches are continually dropping off, keeping all ground round about untidy. Being easily propagated, they have been freely planted throughout Ontario. Nothing so much mars the beauty of any landscape. No tree is so utterly devoid of beauty or of so little value. It is unfortunate for Canada that ever it was introduced.

The balsam poplar (a native of Canada) is a very fast-growing tree, handsome while young, but its beauty is of short duration. In mixed plantations it

invariably takes the lead, and sometimes before the owner is aware it has injured the growth of many more valuable trees. It should never be planted in city parks along with good trees, unless with the understanding that it is to be removed before it crowds the oak, the elm, the maple and the birch, that would otherwise endure and improve in symmetry for many generations. The evil effects of this tree as well as of the silver poplar and the aspen, to be seen in some city parks and other ornamental grounds, is really deplorable.

No doubt the first French settlers in Lower Canada introduced the Lombardy poplar with the traditional notion of its beauty in its native land, where, along with the horse chestnut (the most beautiful of all trees), it lasts for ages without signs of decay. There it is a thing of beauty; but in Canada, by its rapid growth it quickly attains a great height, and then lingers long in a continual state of decay. It is not well adapted for either shade or shelter; its timber is of very little value, and planting it when good trees can be obtained at a small cost, indicates a woful lack of good judgment.

I am often asked the question, which is the best shade tree? It is impossible to say which of all our native trees would, under all circumstances, be the best. It would be a pity if any one kind should have a general preference. If I had only space for half a dozen shade trees I would try to have them all different. But this matter would lead to a lengthened discussion.

There is, however, one more error, which the inexperienced planter is sometimes led into; that is, giving preference to some kinds of European trees—for instance, the elm. Not any of the European varieties are at all to be compared in gracefulness of habit with our own native white elm. Neither is the European linden (basswood) to be compared in this respect with the American linden. The European white birch is preferable to any of our native kinds, and the larch is a more graceful tree than our tamarac, but our native black walnut is much to be preferred to the English variety, because it is hardier. Our native maples will of course always occupy a prominent position. The ash-leaved maple, a very hardy tree and a vigorous grower, makes an excellent shade, but to enumerate is beyond the scope of this article.

Tree Planting—The Forestry Report.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR—The spring is opening so finely this year, that everyone, apparently, will have an excellent chance to get his spring work done in good season. There will, however, no doubt, be more or less wet days, and what I am about to suggest is that one or two of these, if not too rainy, might well be spent in tree-planting. In the fast coming scarcity of good timber in Ontario, any farm with a good plantation of ash, elm, cherry, hickory, or other useful woods, will before long be worth a great deal more than those which possess nothing but cleared acres. It should be remarked here that good timbers cannot easily be grown except in closely planted groves. Isolated trees throw out too many branches for this purpose. There is little difficulty in most parts of the country in obtaining a few thousand young trees, which, by the way, should be always taken from the outside of the woods, where they have had a good deal of sunlight.

The Forestry Report for the year, containing much of interest to those who care for trees, is now being distributed, and will be sent to all who forward their address to me, while the edition lasts. It is a pamphlet, issued by the Ontario Government, in the interests of tree-preservation, and is sent free. There is no charge for the book and none for postage.

This spring, it is to be hoped, will see a large number of forest trees planted. Last year many farmers in the older districts planted largely, generally, however, in the form of long lines of trees, twenty or