

# Beautifying Canadian Roadways

Planting of Shade Trees and Their Maintenance Until Established, has Been Found to Cost About \$2.25 each.

By HENRY J. MOORE, Forester, Ontario Department of Public Highways.

**W**HEN this article appears in print, shade-tree planting operations in southern Ontario may be practically completed for the spring. At more northerly points, however, it may still be possible to carry on the work, therefore the information contained herein may be of value.

Shade-trees which are indigenous (Native) to the particular locality where the planting is to be done should be employed. To introduce to purely country districts exotics or foreign trees would impart to our roadways an untypical appearance. If the roads are to be typically Canadian, native trees should be planted. Exotic trees may of course be properly planted at the approaches to municipalities and therein.

## Trees for Various Soils

The Ontario bush lands afford a wealth of material for planting. The following trees are excellent for roadside planting and many others may be obtained therefrom. Perhaps, however, nursery grown trees may be preferred. That rests entirely with the would-be planter. The question as to whether the trees are hardy in his particular locality is one which also concerns the planter, as the choice must be left to him.

Good Sandy Loams.—Sugar Maple, Black Walnut, Pin Oak, White Ash, Red Oak.

Good Medium Loams.—White Ash, White Elm, Sugar Maple, Black Locust, Black Walnut, Butternut, Soft or Silver Maple, White Oak, Native Plane, Oriental Plane, Native Basswood, Norway Maple, Red Oak.

Good Clay Loams.—Soft or Silver Maple, White Elm, White Ash.

Low Lying Wet Soils.—Soft Maple, Pin Oak, Native Basswood, White Elm, Native Plane.

Swampy Conditions.—Native Willows and Native Poplars. Pin Oak if condition is not too bad.

## Digging The Trees

If bush trees are to be planted carefully select saplings (seedlings) not growth which arises from old tree stumps. Saplings which stand out some distance from their neighbours will be best. Trees, eight to ten feet high will be a very convenient

and satisfactory size. Remove the branches of these to a height of about six feet to facilitate digging, then dig a trench around the trees at a distance of at least eighteen inches from the trunk, deep enough and wide enough to allow of the soil being excavated from beneath the root system so that practically all the root fibres may be obtained with all the soil possible thereon. The ball of roots and earth should be two and one half feet to three feet wide. Remember that you will fail in your tree planting operations if you chop off the fibrous roots. After digging carefully transport the trees to the holes which are ready to receive them, and do not expose the roots to the drying influence of sun or wind except during the actual work of planting.

## Pruning the Trees

The crowns of the trees to be planted must be reduced by proper pruning to compensate for the loss of roots for even with careful lifting some will be lost. It will not harm a young tree to reduce its crown by one half, cutting the branches back to another branch or to a bud. The main stem or leader may also be shortened. The aim should be to leave the tree of conical form, leaving twigs or small branches protruding from the outside of the cone, the bottom of which should be somewhat rounded. Where pruning is not effected the large leaf surfaces will draw upon the moisture in the tree, and as the roots cannot adequately replace it, the tree may die.

## Digging and Planting

The holes to receive the trees should be prepared before the trees are dug. Make these at least three feet wide and fifteen inches deep, throwing the surface soil on one side and the sub-soil on the other. Fork the bottom of the hole to facilitate and place therein a layer of fertile surface soil, sufficient to elevate the root system to the same relative elevation as it existed in the bush. In other words so that the roots will not be much, if any, deeper in the soil than they previously existed. An inch or so of soil over the roots will not harm, but to set the roots of a

young tree six or seven inches deeper than nature intended will certainly court disaster. The roots of a tree respire (breathe) therefore be careful you do not smother the roots and kill the tree.

It requires two persons to plant a tree satisfactorily, one to hold it in position and the other to fill in the soil. In all cases where the soil does not naturally adhere to the roots of the tree to be planted the roots must be spread out so that they radiate from the trunk. All broken ones should be removed by a sharp instrument making the cut from the underside and preferably at a point where two roots branches join. Having set the tree at the forementioned elevation and spread out the roots, fill in the fertile soil between and above them and tramp the area very firmly. Water the soil to make it settle around the roots and to refresh the tree, after which as soon as the soil is dry enough to cultivate make the surface concave (saucer-shaped) so as to retain all the water which will fall as rain.

Planting of trees should be discontinued as soon as the buds show the first sign of bursting, therefore the end of April normally may be regarded as the last possible date on which to plant deciduous shade trees in Southern Ontario, varying perhaps to two weeks or so later as far north as Ottawa and Parry Sound. From mid-October until the advent of frost is also a good time to plant hardy trees, but somehow or other enthusiasm seems to wane in the Fall, although this is perhaps the most advantageous time to undertake the work.

## Staking the Trees

Trees should be staked. The objects are to hold them securely in position so that contact between their growing fibrous roots and the fine particles of soil will not be broken, and that they may remain upright and uniform in the rows. A stake six feet long, two inches by two inches square, or if round of two inches diameter, will suffice. This should be driven into the soil about three inches away from the trunk of the tree and to a depth of perhaps eighteen inches, and be set upright.