

side and no steps taken to prevent it, the grass soon takes possession of the ground and the trees die. To avoid this, the best plan is to plough a clean furrow-face as deeply as possible next the grass, throwing the soil into the plantations, and to avoid planting the trees too close to the edge. This custom of planting close to the edge of the grass is far too common. In no case should the trees be closer to the edge of the plantation site than five or six feet. This is very important, and it will be far better even to crowd the rows a little in the interior of the plantation, and allow the full outside space.

SWEET GRASS.

Sweet grass is much more difficult to get rid of than blue-joint after it gets into the plantation, and, where present in patches over two or three yards square, it will be far better to defer planting till more work has been done on the land. Patches of this size can be easily handled with a fork. Sweet grass is usually found in low-lying damp places, and is very often met with in the northern and moister parts of the provinces. Even in preparing the land when there are no trees to interfere with field cultivation it is difficult to get rid of, and Mr. Mackay, Superintendent of the Experimental Farm at Indian Head, recommends (in 'Farm Weeds,' page 27, 2nd edition, 1909): 'The first ploughing should be done when the ground is dry and the weather hot; early in August gives the best results. Plough deep and leave the ground rough for a few days, then harrow; repeat the ploughing in another week if the weather is warm and dry. Ploughing when the ground is wet only spreads the weeds.'

Where sweet grass has obtained the mastery in plantations, destroying it by ploughing is impossible, but good results have been obtained by smothering it with loose straw. Care, however, must be taken to have this done at the right time, i.e., in the beginning of June or when the grass is in the flush of its growth. If done early in the spring or in late summer or fall, the covering seems only to encourage it. A light layer is of no use; it must be about 18 inches thick, and straw, not manure, should be used.

DISTANCES BETWEEN TREES.

One phase of farm forestry that is not well understood by the average farmer throughout the west is the distances the trees should be apart. When informed that four feet each way is the spacing which is usually most desirable, many farmers protest, and cite cases they have known where the trees were planted six feet, eight feet and even a rod apart with excellent results. This may no doubt be true enough in countries of copious rainfall, but in dealing with the conditions peculiar to the prairie provinces the closer planting is by far the best.

The success of all growth in the west depends on the supply of moisture in the soil, and the man whose farming operations circle around its conservation is the man who gets good crops. It is also an axiom that will be admitted by all, that the less extra work the farmer has the better. He has usually enough to do without adding extras, and the more quickly his trees get beyond the necessity for cultivation the better it will suit him. When trees are young they grow bushy, and the closer they are planted together the quicker the branches meet and shade the ground for themselves, and the sooner the farmer's task of cultivating to conserve the moisture is over. Close planting is, therefore, really a labour-saver in establishing the plantation, besides affording a better stand of trees per acre, and, by-and-by, trees of better quality.

PRUNING.

No pruning is necessary in a plantation. As we have just seen, the branches close to the ground are required to shade the soil; if they are removed it is really a restoration of the bare soil condition that takes place, and the trees are back again to the