## A Shelter Belt of Trees for Every Prairie Farm

How to Make Tree Planting Successful under Conditions of Limited Moisture—How to keep down Grass—Some Common Difficulties and their Solution.

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T SHOULD not be difficult for us to understand how necessary it is for us to have belts of trees to shelter our homes and playgrounds on the Prairie.

This Prairie is very bare, and high winds often sweep over it making it very unpleasant sometimes for the people living threre.

Trees are the means nature has provided for breaking up these winds, and as fast as she can, nature is covering the Prairie with trees. Further North and East, this tree covering is quite general, the whole country being almost entirely under trees, and as you would expect, the winds there are neither so high or so frequent as we find them out in the open.

This natural tree covering has spread very rapidly onto the Prairie in the last ten or twelve years and thousands of little bluffs of native popular are now to be found in many districts where formerly there were none. The reason is not far to seek for the people who have come to live there during these years have kept the fires down which used to run all over the country nearly every year, burning the grass and the little bluffs just about as soon as they had got well started.

We do not know how far this natural tree covering would spread, but so far as we have seen, there does not seem to be any reason to doubt that if human population moved out the whole Prairie would in time become almost entirely covered, the same as in the North, if the fires were kept from burning as they used to do before the settlers came in.

This natural tree-covering would possibly take hundreds of years to accomplish but as the trees would interfere with our farming, it will never of course be allowed to be completed.

At the same time it is good to know that trees will grow naturally if they are



Another successful tree planter under prairie conditions is Mr. John W. Lucas, of Cayley, Alberta. The photograph shows a wood lot of 2,000 trees planted four feet apart. This is a big asset that adds value every year with practically no human labour, now that the trees have established themselves and killed out the grass.



Saskatchewan has made excellent progress in the beautifying of school grounds with trees and shrubs. There are subtle education influences in a beautiful tree-enclosed playground which no pile of text books can rival.

given a chance, when we are thinking of planting trees. We know we need not fail if we go about the business the right way.

One very encouraging thing the last few years have taught us is that, even if we did not have rainfall enough for grain crops during these years, we had enough for trees. If we had not, then all the trees on the Prairie would have died, both those grown by nature and those planted by man. But we know they have not, and there are thousands of trees living today that have withstood the dry years: No doubt some of you will remember having seen many planted trees which have died during the dry years, but there is always another reason somewhere. They died not because enough moisture in the shape of snow or rain did not fall. That was not the reason. Enough rain fell, but the reason the trees died was because the most of the rainfall was lost before the trees could use it.

## How to Save the Moisture.

And this brings us to the most important part of our subject and the real secret of success in tree planting on the Prairie, the conservation or saving of enough of the moisture that falls every year so that the trees will be able to keep on growing.

We must remember too that Western Canada is not the only place in the world where this moisture saving is important, for many other countries have the same problem and yet they grow large forests there. The mention of the conservation or saving of moisture immediately suggests the question, "how do we lose it?, and the answer is very simple and easy to understand for it is lost almost entirely through the action of the sun and the wind. Everybody has seen wet clothes hung out on the lines, and you have all seen how quickly the sun will take up the moisture and dry the clothes.

Some of you no doubt have also noticed that the drying takes place much quicker on a breezy day, showing that the wind has a great deal to do with drying up the moisture. If this is true in the drying of clothes, it is also true in the drying of the Prairie soil and in our tree planting it should be very natural to conclude that if we could keep the sun and the wind away from the soil in which the trees are growing, there would be a far better chance for them to have enough moisture to enable them to live.

We find this is quite true, so true indeed, that the whole success of tree growing depends on it. Those of you who have



Another view of Mr. Lucas' shelter belt at Cayley.