

the cuttings were transferred at intervals of a few days through a series of solutions of Tidman's sea salt, each solution being 0.1 per cent stronger than the last. The general result of this attempt to educate the willow to halophytic life was that all the cuttings survived the progressive shifts up to 1 per cent Tidman, whilst very few lived in 1.3 per cent, and none in 1.5 per cent.

Still, these results are sufficiently encouraging to deserve repetition with other species of willow; for undoubtedly it would be of great utility if a willow could be found to plant on the banks of tidal creeks.

At the top of an estuary the water at high tide rarely, if ever, reaches a high degree of salinity, and in such positions we are disposed to think willows might safely be planted; and even if the experiment turned out a failure not much harm would have been done.

As regards the caving of river banks in cases outside the influence of the sea, the following recommendations¹ are of value:—

“The willow is admirably adapted to holding alluvial soil in place. It is far more serviceable for this purpose than walls of masonry, and the facility with which it reproduces itself by seed, suckers, sprouts, and cuttings, both natural and artificial, makes its use very simple and inexpensive.

“The great difficulty with planting any sort of tree on perpendicular banks is that the caving of the soil is so rapid that the planted tree has no opportunity to get a start before it is undermined and precipitated into the river. An excellent scheme is as follows: Green willow poles, 18 to 20 feet long, are taken in spring and laid on the ground near the bank 2 feet apart, with their butts (ends pointed) directed towards the river. Woven fence wire is then stretched along over the poles and stapled fast to each one. Sections of wire about 100 feet long can be handled to best advantage. After the wire has been securely fastened to the poles, they are all pushed over the bank together, so that the pointed butts of the poles will fall and sink into the soft mud at the water's edge. As the bank caves off

¹ Taken from U.S. Department of Agriculture, Bureau of Forestry, Circular No. 27, by G. Pinchot.