THE EFFECTIVENESS OF TRACKSIDE WATER SPRAYS ON LEAF AFFECTED TRACK AT BEARSTED BANK – 1979

This report considers the effectiveness of trackside water sprays in improving wheel/rail adhesion.

Trackside water sprays were developed as a method of maintaining rails free of leaf contamination in the autumn period. Steady rainfall and the passage of normal traffic had been observed to give rise to clean rails at normally heavily contaminated sites. As a result, a suggestion to simulate rainfall from a trackside installation was made. Trials have therefore been carried out with trackside sprays in 1977 at Bekesbourne and in 1978 at Bearsted bank. On each occasion the sprays maintained visually clean rails but very few adhesion measurements were possible. In 1979, measurements of adhesion were made by the Tribometer train while carrying out a test programme on Southern Region, which included the evaluation of the effect of water cannon trains on similarly affected track.

Strong evidence was obtained in these tests to show that trackside water sprays are an effective means of maintaining leaf free rails and higher levels of adhesion than prevail on untreated damp rails. The trackside sprays maintained adhesion levels above a minimum of 0.11 which, although not high, is sufficient to satisfy the normal demands of traffic at this location, judged by the experience of operations on rails cleared by steady rain.

BR Research Report Ref: TM-TRIB-43AEAT Abstract Date:
Report Author(s): RK Taylor 17/06/2002
Date of Publication: April 1980