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USE OF A LEVEL SPREADER TO ENHANCE INTERFLOW AND DELAY TIME TO PEAK IN A FORESTED FILTER ZONE

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ABSTRACT
The effectiveness of a modified level spreader to enhance interflow and delay time to peak was analyzed in a 0.2 ha. forested filter zone (FFZ). The level spreader was constructed on the contour to disperse storm flow uniformly across the upper edge of the FFZ. H-flumes were installed at the upper and lower edges of the FFZ. Stage height in the flume was measured with a float-driven potentiometer monitored by a data logger. The irrigated runoff was alternatively dispersed and concentrated under three soil moisture conditions - saturated, field capacity, and dry. Hydrograph analyses were performed to estimate interflow and time to peak. Dispersed flow considerably increased interflow and delayed time to peak at the lower flume even under saturated soil moisture conditions. The effectiveness of the dispersed flow increased as soil moisture content in the FFZ decreased.

Reference: Rajbhandari, N.B. ; Use of a Level Spreader to Enhance Interflow and Delay Time to Peak in a Forested Filter Zone, Journal of Environmental Hydrology, Vol. 7, Paper 13, September 1999.

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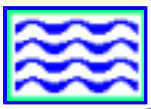 Return to HydroWeb Homepage