HR-155 Soil Erosion Control for Secondary Roads

Key Words: Erosion control, Roadsides, Soil stabilization, Vegetation

ABSTRACT

Stabilization of erosion on roadsides after construction is an essential part of highway building. Vegetation is usually the most economical and satisfactory stabilizing material. A period of not less than 6 weeks and as much as a year, however, may elapse between the time construction is completed and the time a live vegetative cover can be established. This period before the successful establishment of a living vegetative cover is a period of high erosion risk and of risk of severe damage to the environment.

Iowa has an active roadside stabilization program along the interstate and primary road systems. Many studies have been conducted along these highways to investigate methods for soil erosion control before revegetation and to find the best seed mixtures and fertilizer rates. Roadside stabilization along secondary roads, however, is a recent development brought about, in part, by stronger Federal restrictions. Roadside stabilization along secondary roads presents special problems. These roads have smaller right-of-ways and, as a result, steeper backslopes than do primary roads. Because of this, many practices, such as straw mulching, used to control erosion along the primary roads cannot be used on these steeper backslopes. Therefore, a research project was started to study these special problems along the county road system. Another objective of this study was to investigate various commercial soil stabilizers, as replacements for straw mulch, to control soil erosion before revegetation.