Establishment and Effectiveness of Sod Strips for Soil Conservation

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ABSTRACT

Vegetative barriers are among the conservation practices that can address soil erosion in concentrated water flow areas. Criteria and considerations for planning and establishing a vegetative barrier in a field are described in NRCS Conservation Practice Standard 601 – Vegetative Barrier. This practice uses narrow strips of vegetation planted across a concentrated flow area to trap sediment, stabilize slopes, manage water flow, and reduce soil erosion. This practice has been effective in reducing soil erosion and stabilizing slopes in concentrated flow areas.

The Rose Lake Plant Materials Center has developed a novel method for growing vegetative barriers in vegetative sod strips in the greenhouse that can be installed in the field as plant and soil conditions allow. Advantages of vegetative sod strips include more immediate effectiveness as a vegetative barrier compared to establishment from seed, known plant density at time of establishment, and immediate visibility upon installation (for weed management). Technology used for growing sod strips in a greenhouse and installing them at field site as well as measured effect on soil conservation is presented.

Approximately 100 ton of soil over five years was deposited upslope from 325 linear feet of *Miscanthus sinensis* sod strips in a southwest Michigan corn/soybean production field. These field study results and the technology developed by the Plant Materials Center for growing and installing the sod strips show promise for delivering conservation, today and tomorrow.

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