



United States Department of Agriculture  
Natural Resources Conservation Service

# Plant Materials Program Project

## *Miscanthus Vegetative Barriers for Soil Conservation*

Grassed waterways (NRCS 412 Standard) are a recommended conservation practice for healing ephemeral gully erosion. Waterways convey concentrated-flow water, reduce gully erosion, prevent flooding, and limit sediment and/or nutrient loss to surface water. Vegetative barriers, a conservation practice that takes LESS LAND OUT OF PRODUCTION can be a viable alternative to grassed waterways. A designed narrow vegetative barrier (NRCS 601 Standard) of *Miscanthus sinensis* has prevented about 95 tons of soil loss over five years. Technology used for establishing the *Miscanthus* vegetative barrier sod strips under greenhouse conditions and installed in the field was developed by the Rose Lake Plant Materials Program.

### Vegetative Barriers

Permanent strips of stiff, dense, vegetation along the general contour of slopes or across concentrated flow areas designed to:

- Reduce sheet and rill erosion
- Reduce ephemeral gully erosion
- Manage water flow
- Stabilize slopes
- Trap sediment

### Advantages

***Miscanthus sinensis* accession was NOT INVASIVE at evaluation sites**

- did not produce viable seed in 15 years of testing
- did not escape from original plantings

***Miscanthus* vegetative barriers performed conservation functions**

- managed water flow, stabilized slopes, and trapped sediment
- removed very little land from production
- eased farming through concentrated flow areas
- emerged through sediment and resumed growth from buried nodes
- remained intact and erect year round
- provided immediate functionality when installed as sod strips

***Miscanthus* is long-lived**

- 15 years in field planting at Rose Lake Plant Materials Center



*Stadia boards showing 1-ft soil deposition upslope from barrier*

## Ohio Field Locations Needed!

The Plant Materials Program is looking for field planting locations to demonstrate and evaluate this soil saving technology that keeps more land in production. The Program needs your help to:

- Identify field planting sites
- Provide assistance in planning and installation
- Provide assistance in monitoring and evaluation

The Plant Materials Program has plant material available for this project. The Plant Materials Specialist can provide guidance and training in planning the installation.