

Southern Agriculture BMPs

In Southern agricultural landscapes, a conducive climate, accessible groundwater, nutrient-rich alluvial sediments, and abundant, but variable rainfall allow a suite of row-crops to be cultivated (corn, soybeans, rice, cotton). These variables factor in when creating conservation practices to aid in resource stewardship of agricultural landscapes.

CONTROLLED SURFACE DRAINAGE is the central tenet of conservation practices

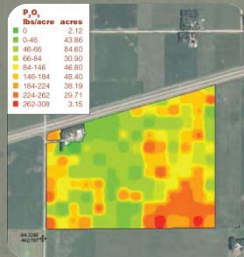
Reasons for controlled surface drainage:

SURFACE DRAINAGE = poor drainage of subsoils, and capping of soils during intense rain (there are no tile drains in southern landscapes)

SEDIMENT LOSS = no underlying bedrock geology, and fine particles results in the highest sediment loss rates in the United States

NATURALLY HIGH PHOSPHORUS = alluvial sediments are naturally high in phosphorus as is the groundwater

Mississippi solutions for nutrient reductions:



Input management



Edge-of-field



Water Capture



Drainage Ditch

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Keys to Nutrient Management in Southern Landscapes

Water Management

- Structural practices that increase water residence
- Water conservation

BMPs

- Structural practices that retain and slow the transport of sediment
- Effectiveness for nutrient concentration/load reductions
- Creating scaled management of BMPs

Scaled Management of Controlled Surface Drainage

Stovall Farm Example

→ Pads and slotted pipes

● Low grade weirs

On farm storage

Tailwater recovery system

