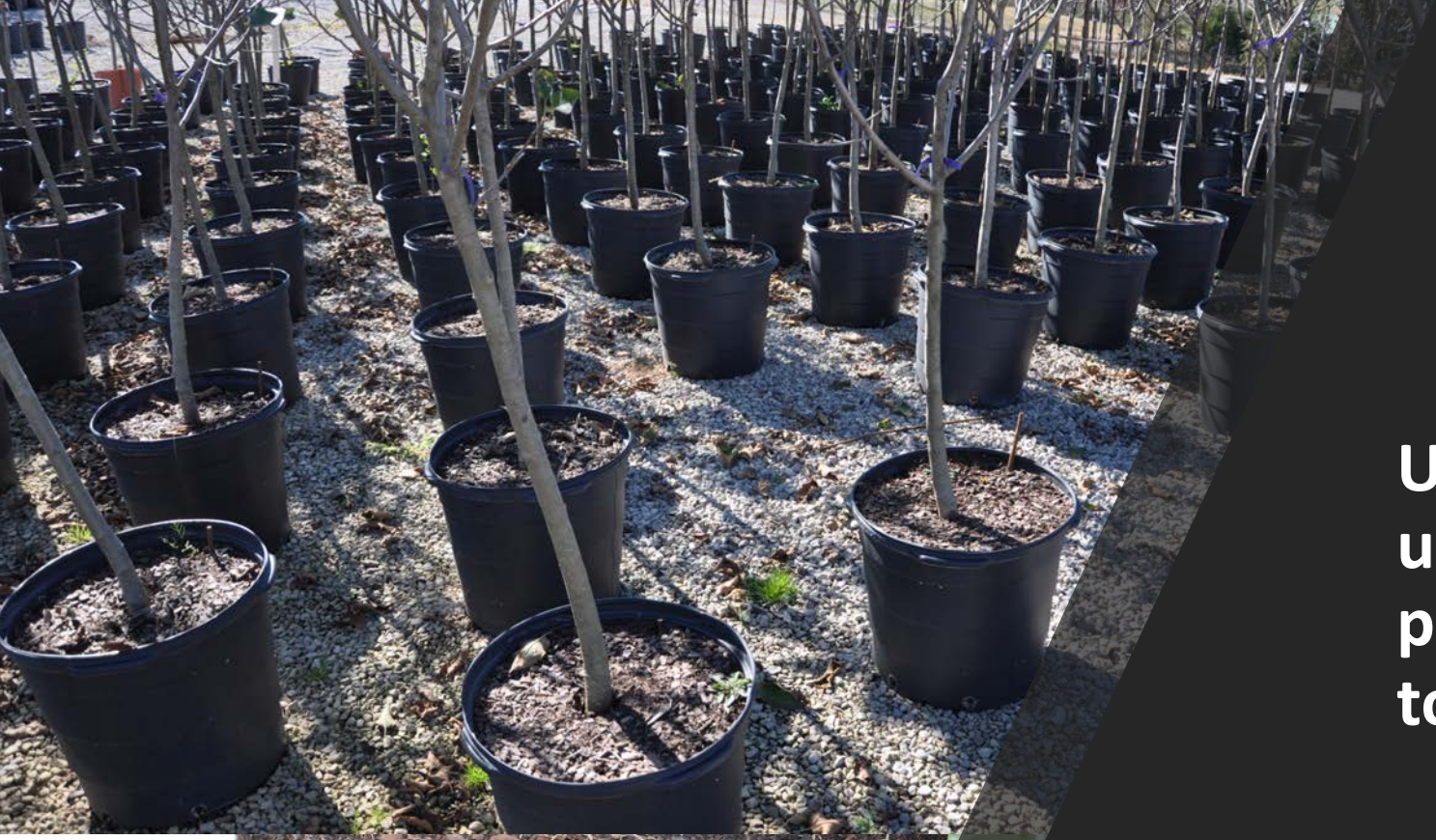
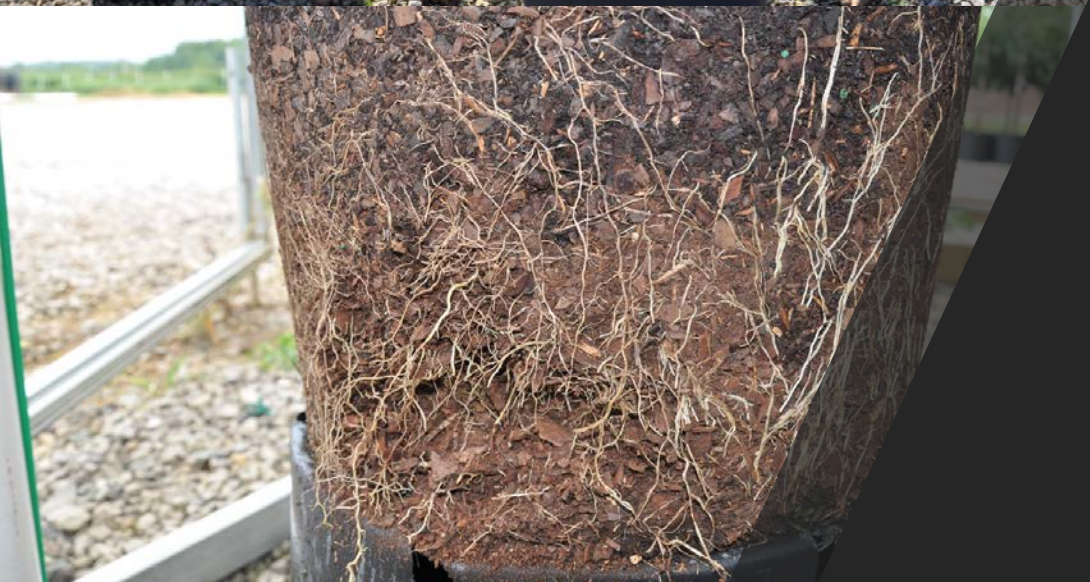
Tennessee State University College of Agriculture

USDA NRCS U.S. Department of Agriculture Natural Resources Conservation Service

Promoting Best Management Practices (BMPs) in the Nursery Production Systems for the Mid-South United States by Providing Planning & Technical Assistance

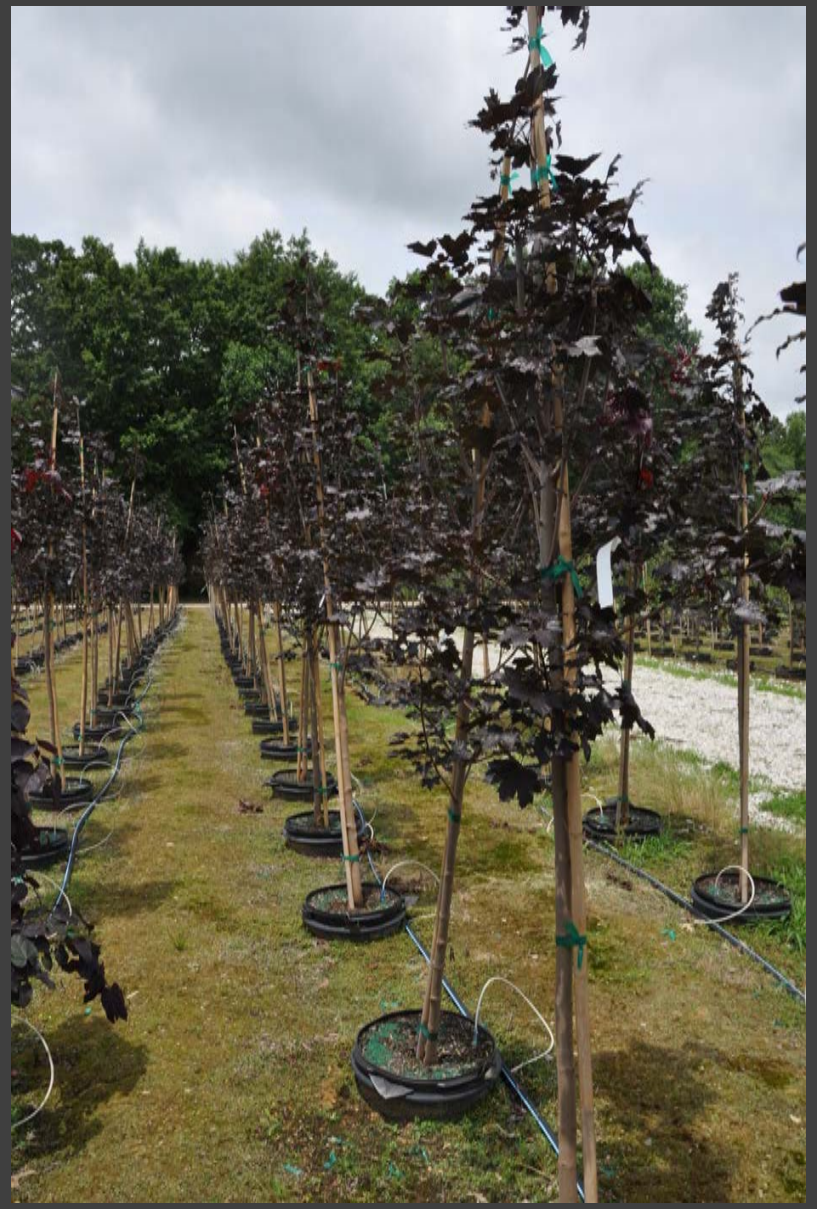




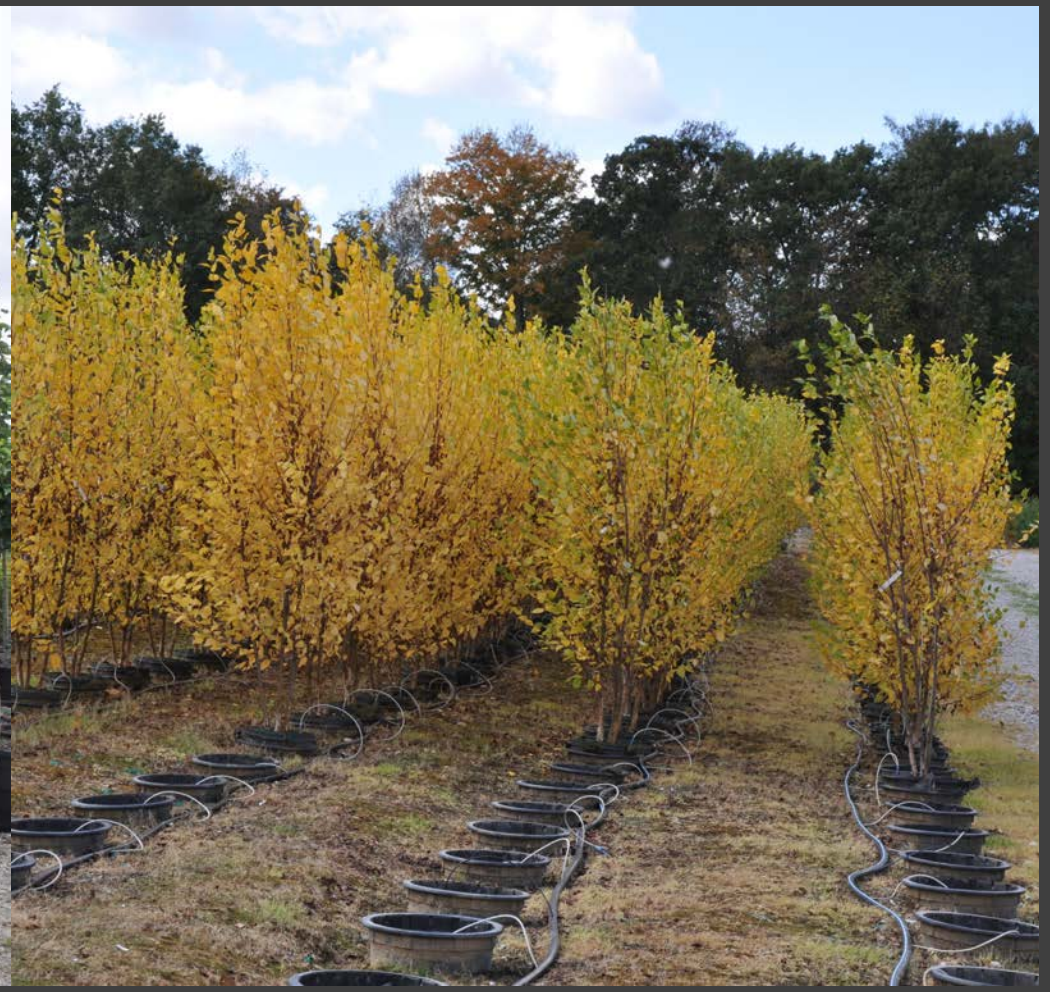
Unique plant production system using soilless substrate to grow plants in containers compared to growing field crops in soil.

Growing nursery plants in containers

Pot-in-Pot Production System

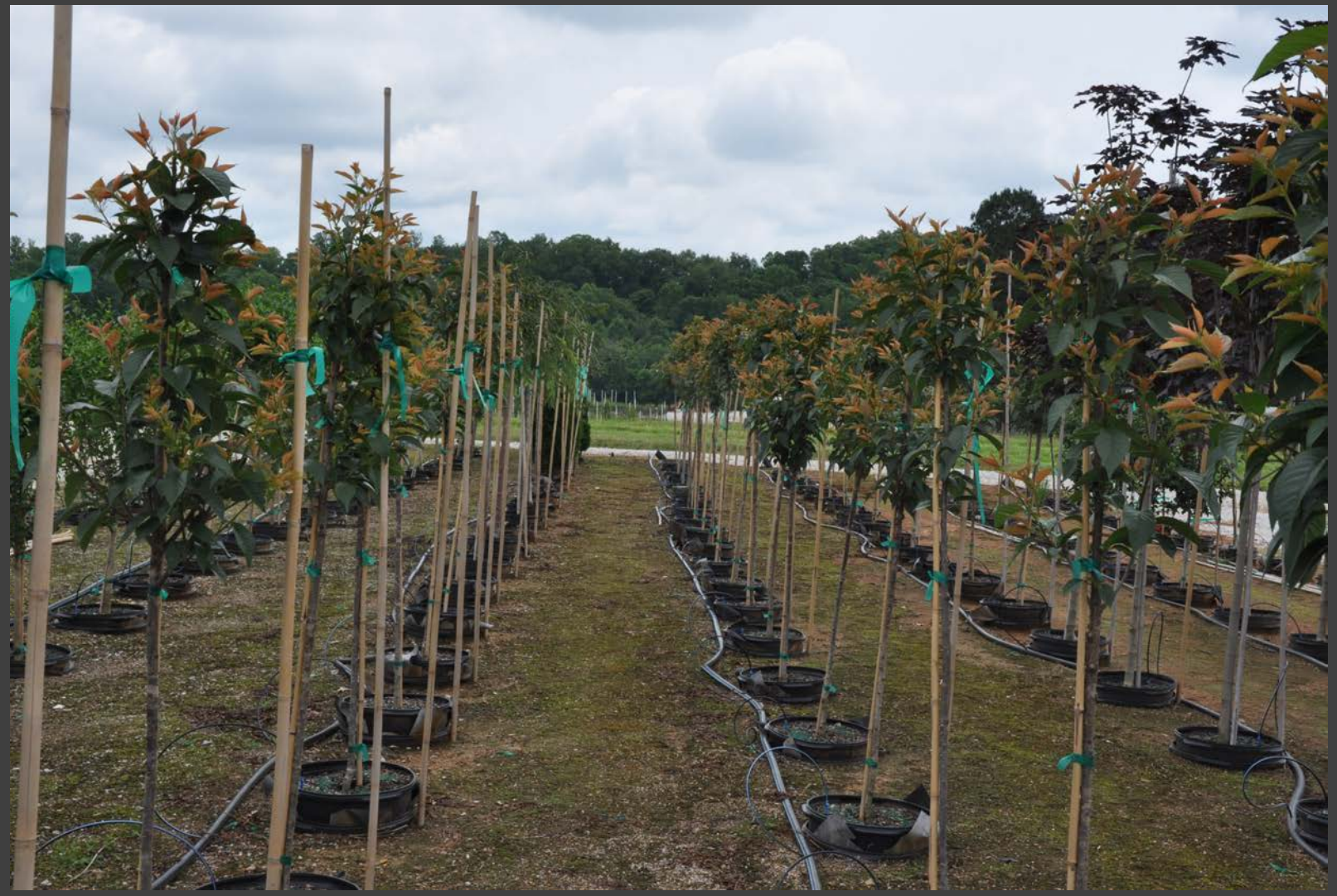


Greenhouse/Nursery operations and management are classified - intensive agricultural systems



Use a combination of expensive resources such as:

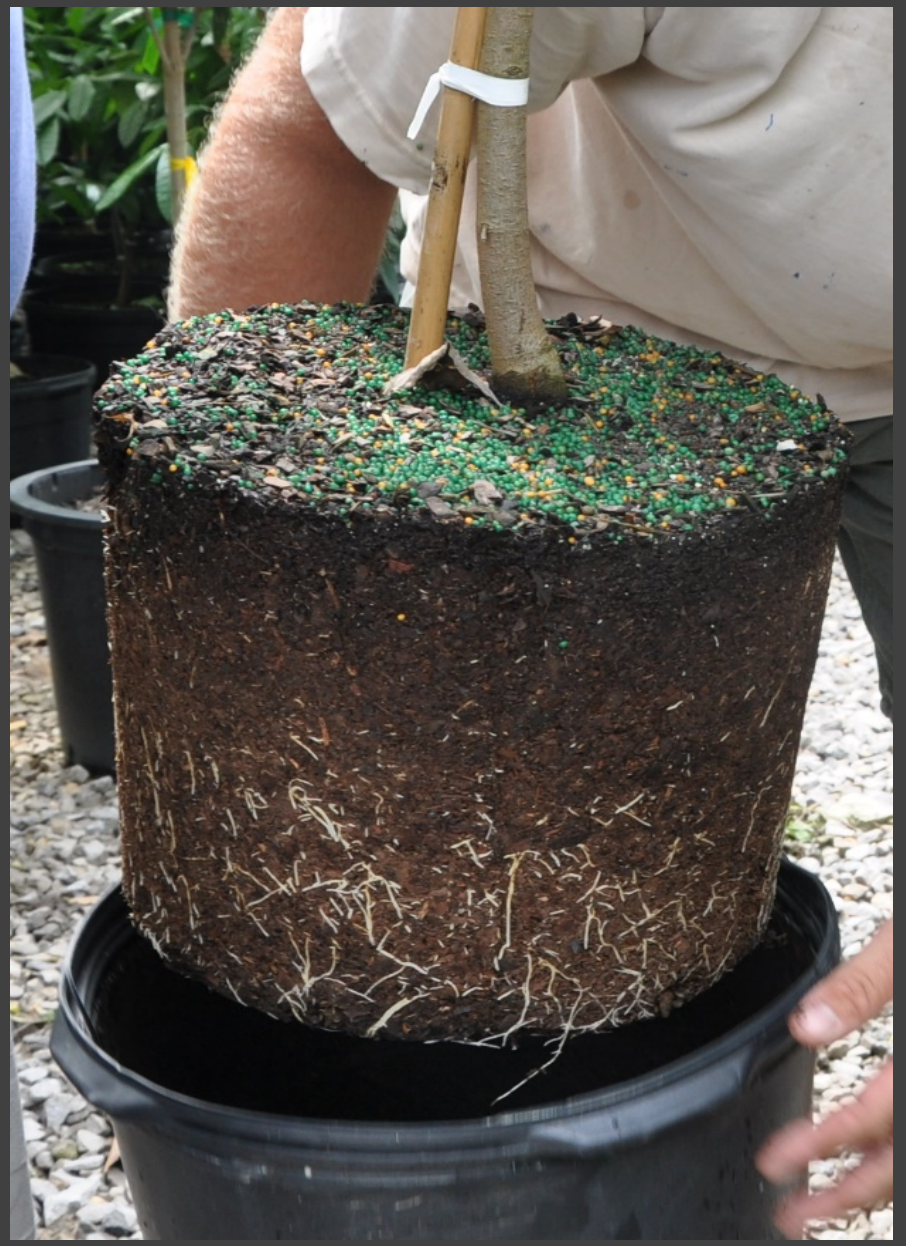
1. labor
2. water
3. nutrients to produce plants in large numbers on small acreages.

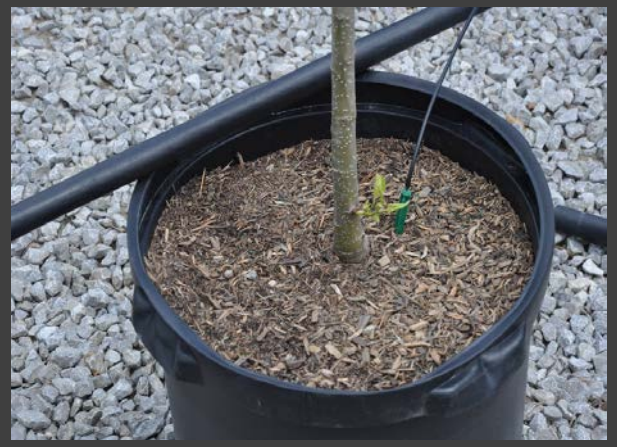


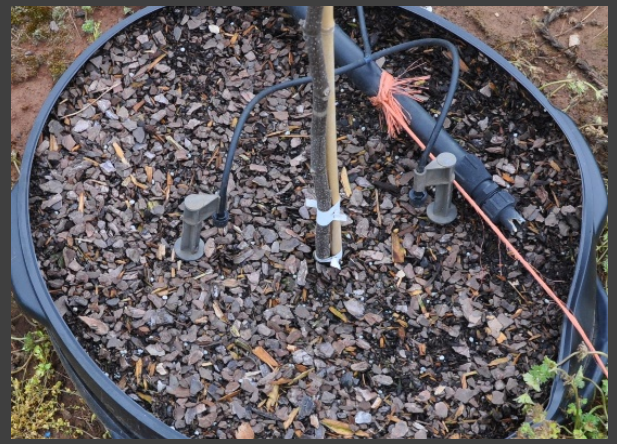
Need for minimizing: contaminant runoff, harvesting and recycling rainwater and runoff water, recuperating disturbed soil areas, and adopting 4R nutrient stewardship of the right source, rate, timing and method of application.

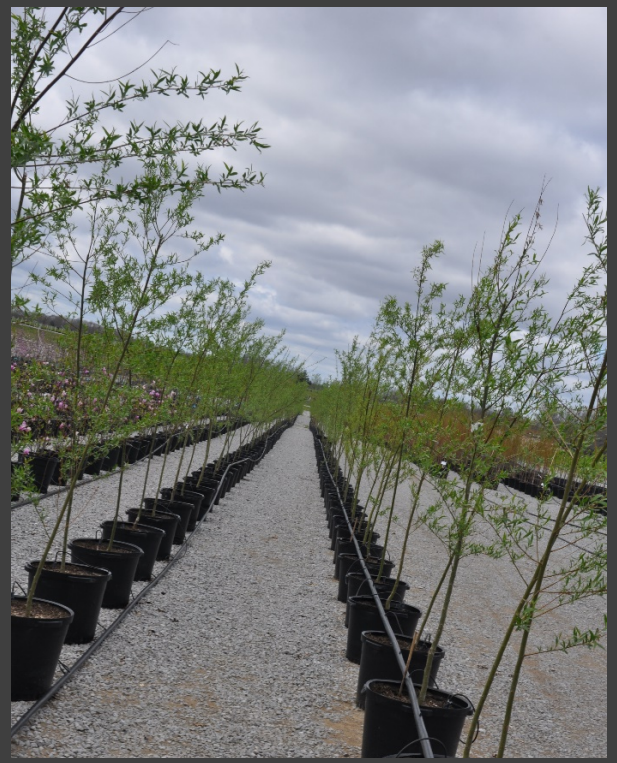
What are the Production inputs

- Irrigation, nutrients and pesticides require precise and properly timed applications in quantities that result in maximum benefits and minimum resources risk.





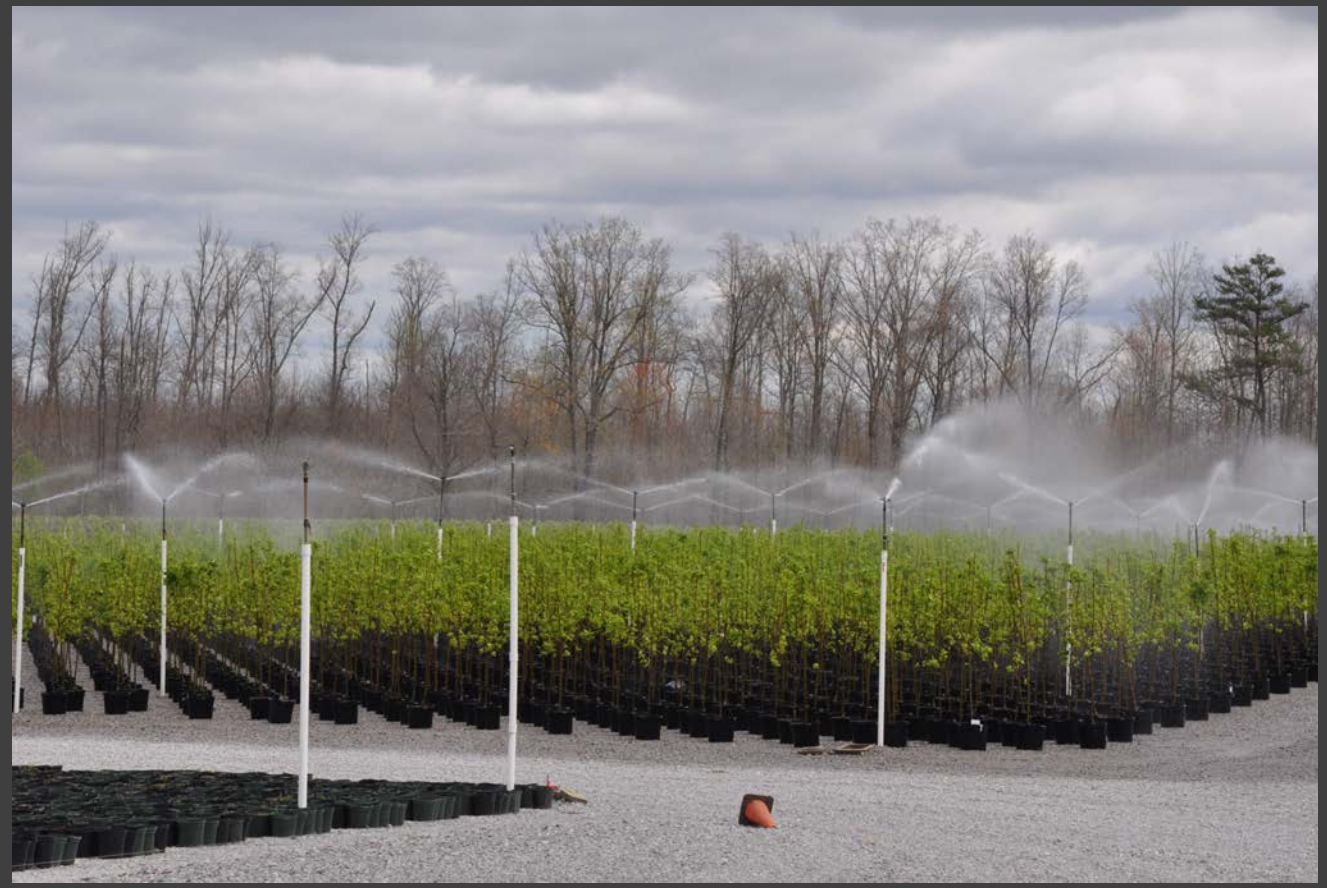




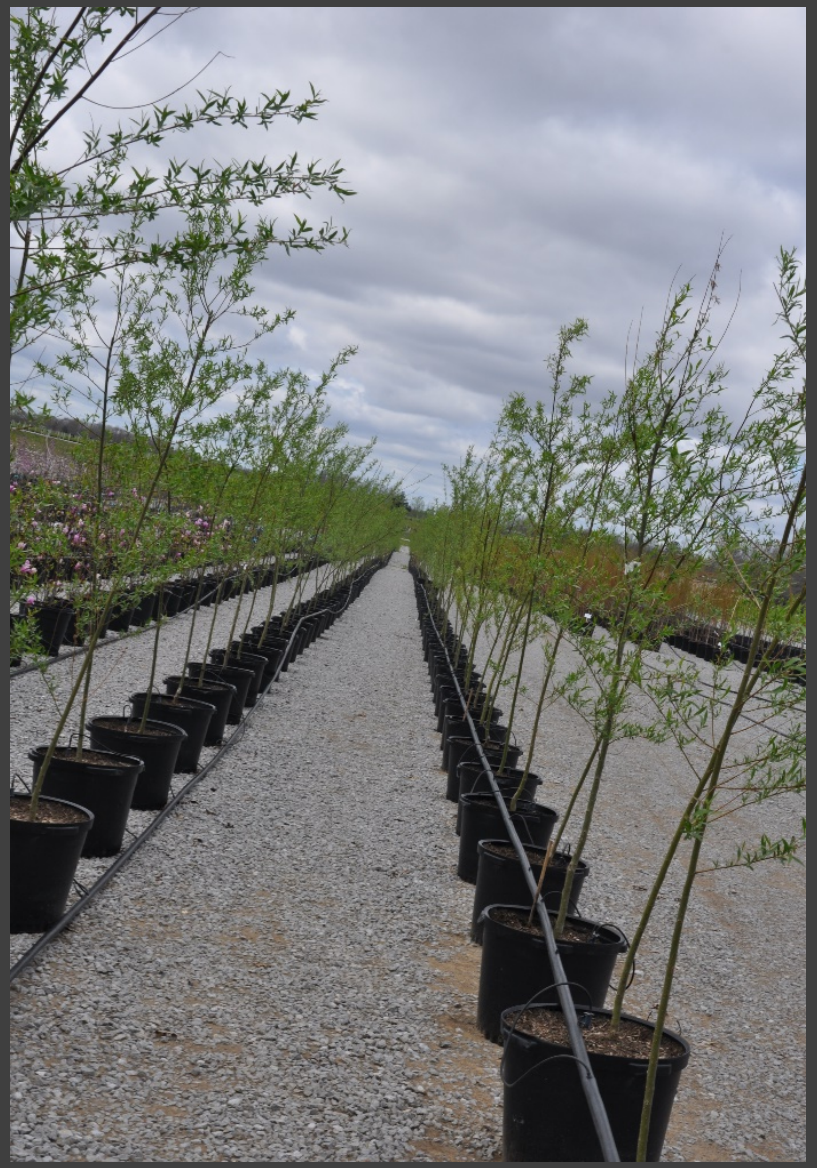
MICROIRRIGATION SYSTEM: FREQUENT SUPPLY OF SMALL QUANTITIES OF WATER/FERTILIZER

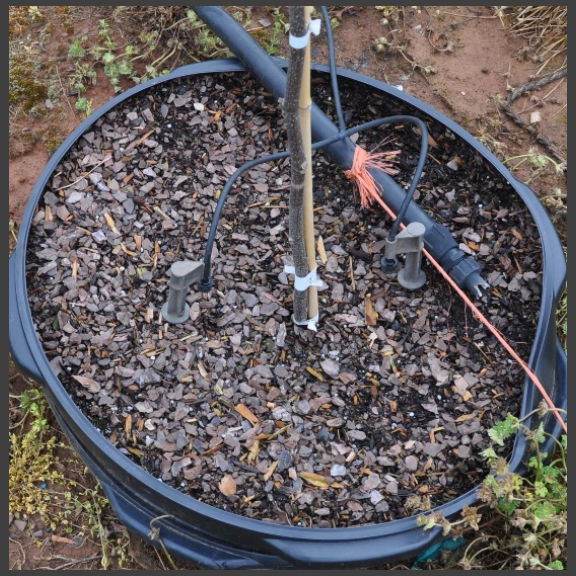
- **Uniform delivery of adequate amount of water efficiently for optimum plant growth development**

SPRINKLER SYSTEM: DISTRIBUTION SYSTEM THAT APPLIES WATER BY MEANS OF NOZZLES OPERATED UNDER PRESSURE.



- **meeting crop water demands**
- **crop cooling, frost protection, or bloom delay**
- **application of chemicals, nutrients, and/or waste water**



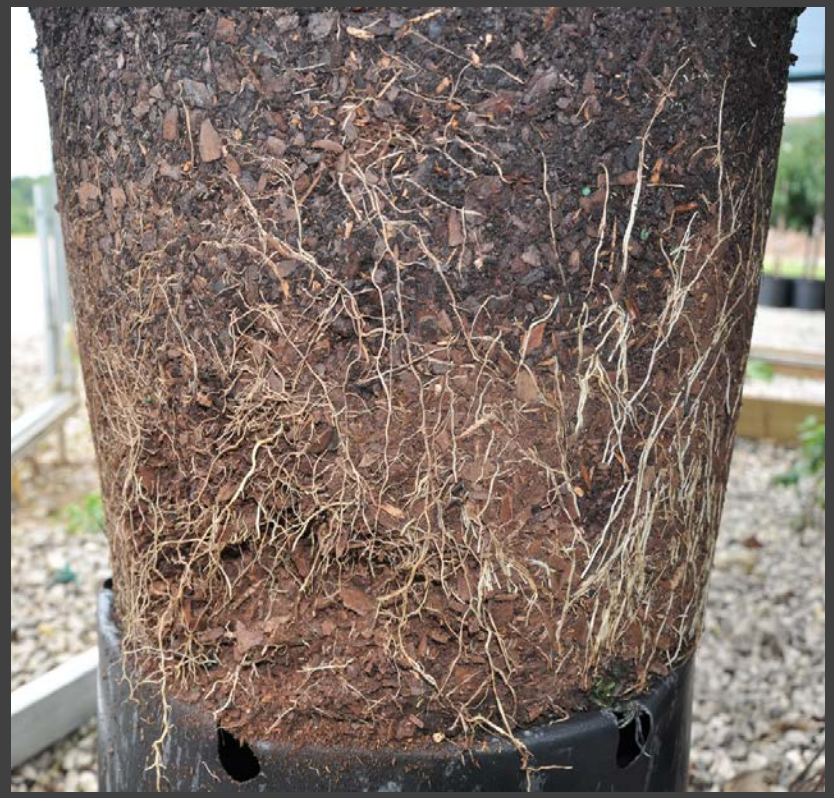


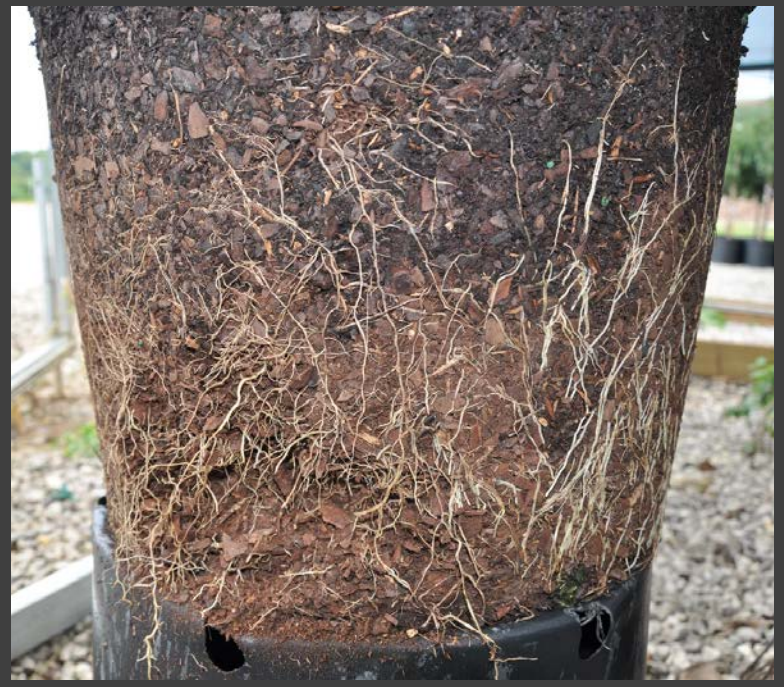
MICROIRRIGATION SYSTEM: FREQUENT SUPPLY OF SMALL QUANTITIES OF WATER/FERTILIZER

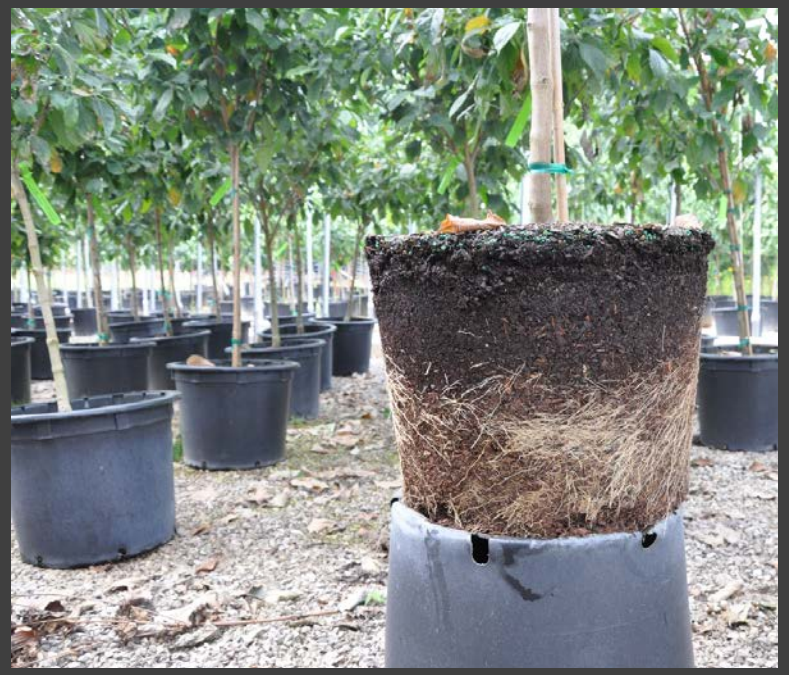
1. **Uniform delivery of adequate amount of water efficiently for optimum plant growth development**

Nutrient and water management Challenges

Uniform delivery of adequate amount of water efficiently for optimum plant growth development



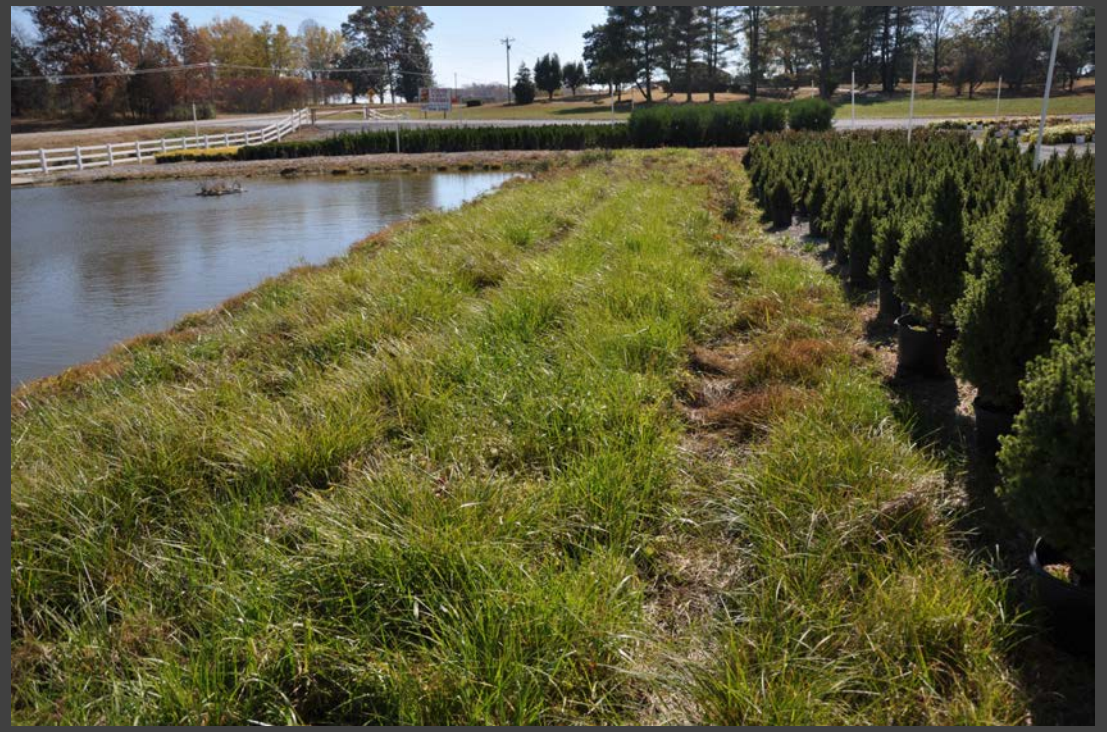




Nutrient and water management challenges

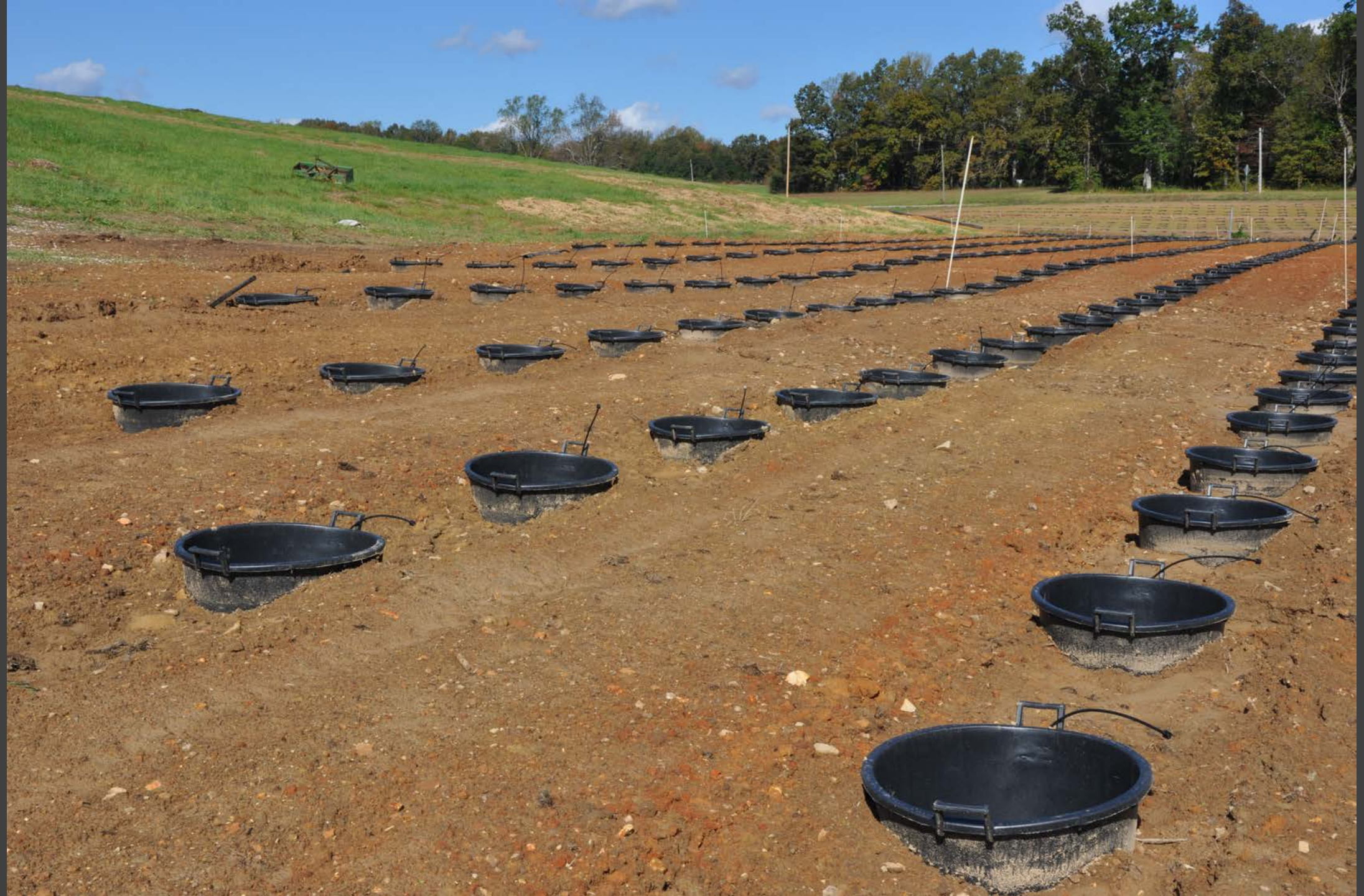
Proposed Conservation Practices

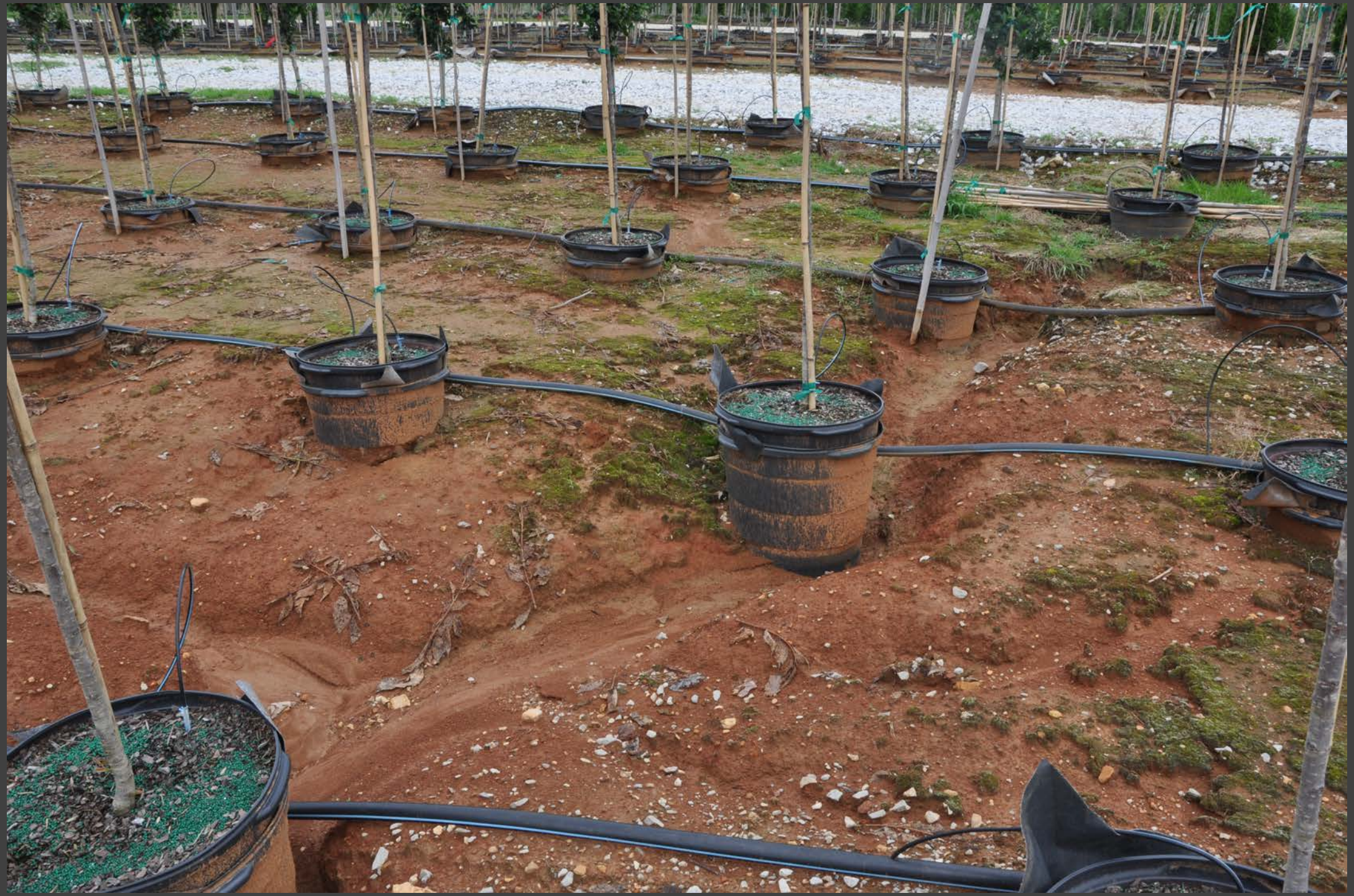
- conserve and protect the natural resources from adverse environmental impacts in the container plant nursery industry
- enhancing the current Southern Nursery Industry “Guide for BMPs”
- offering reviews to NRCS Conservation Practice Standards that specifically address the resources concerns of the industry

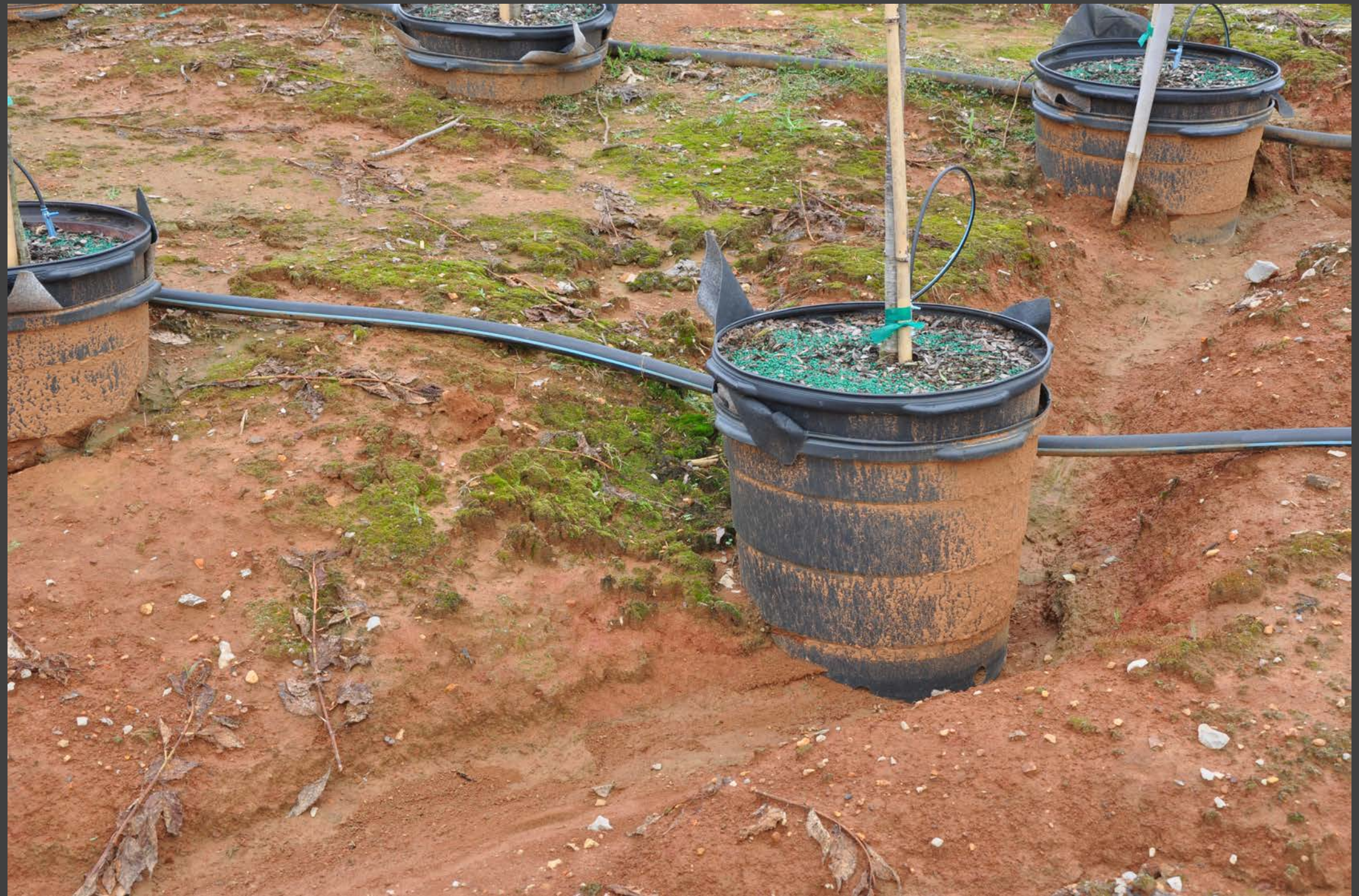


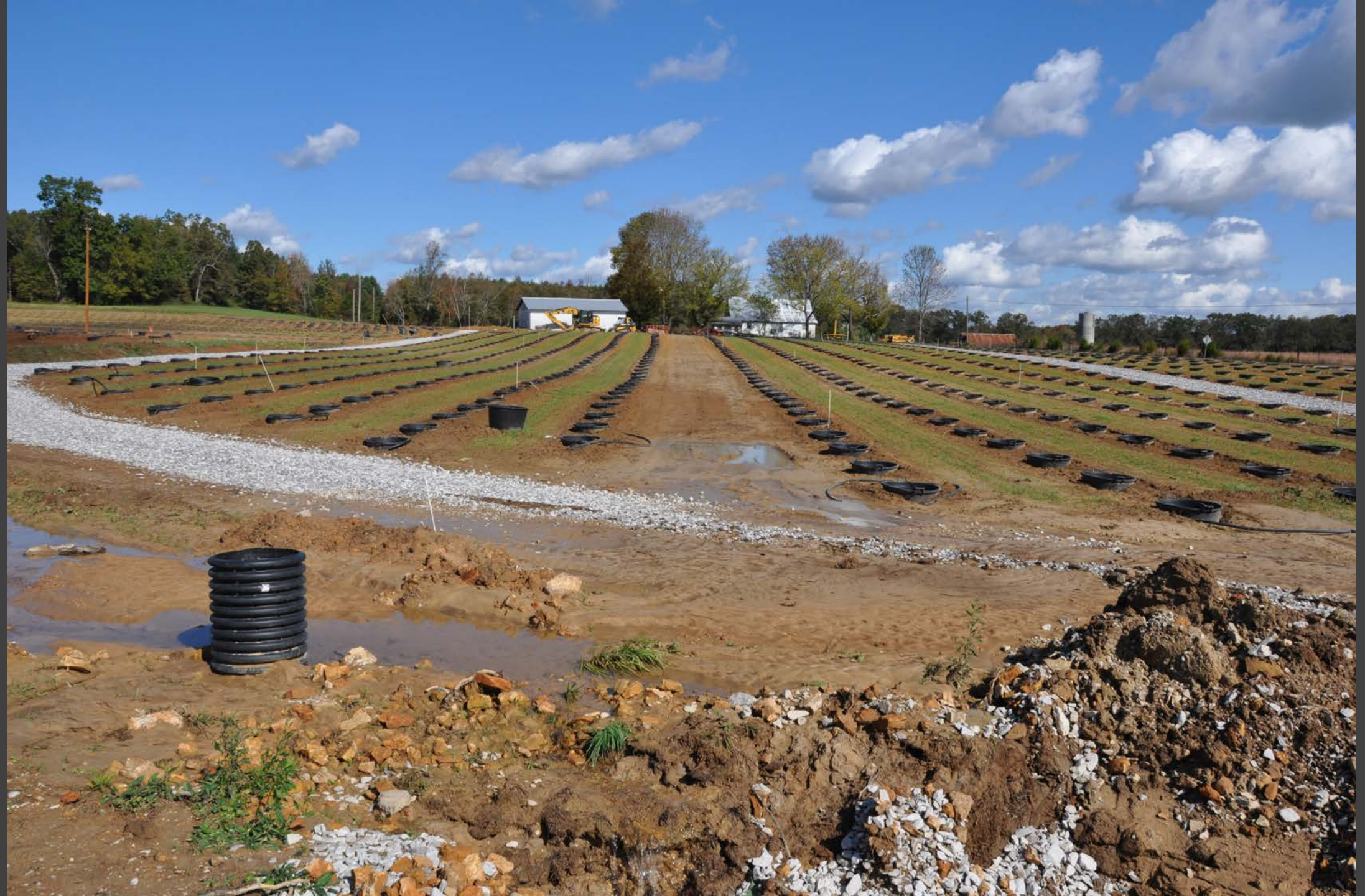
FILTER STRIP/ VEGETATIVE BARRIER TO MINIMIZE RUN-OFF

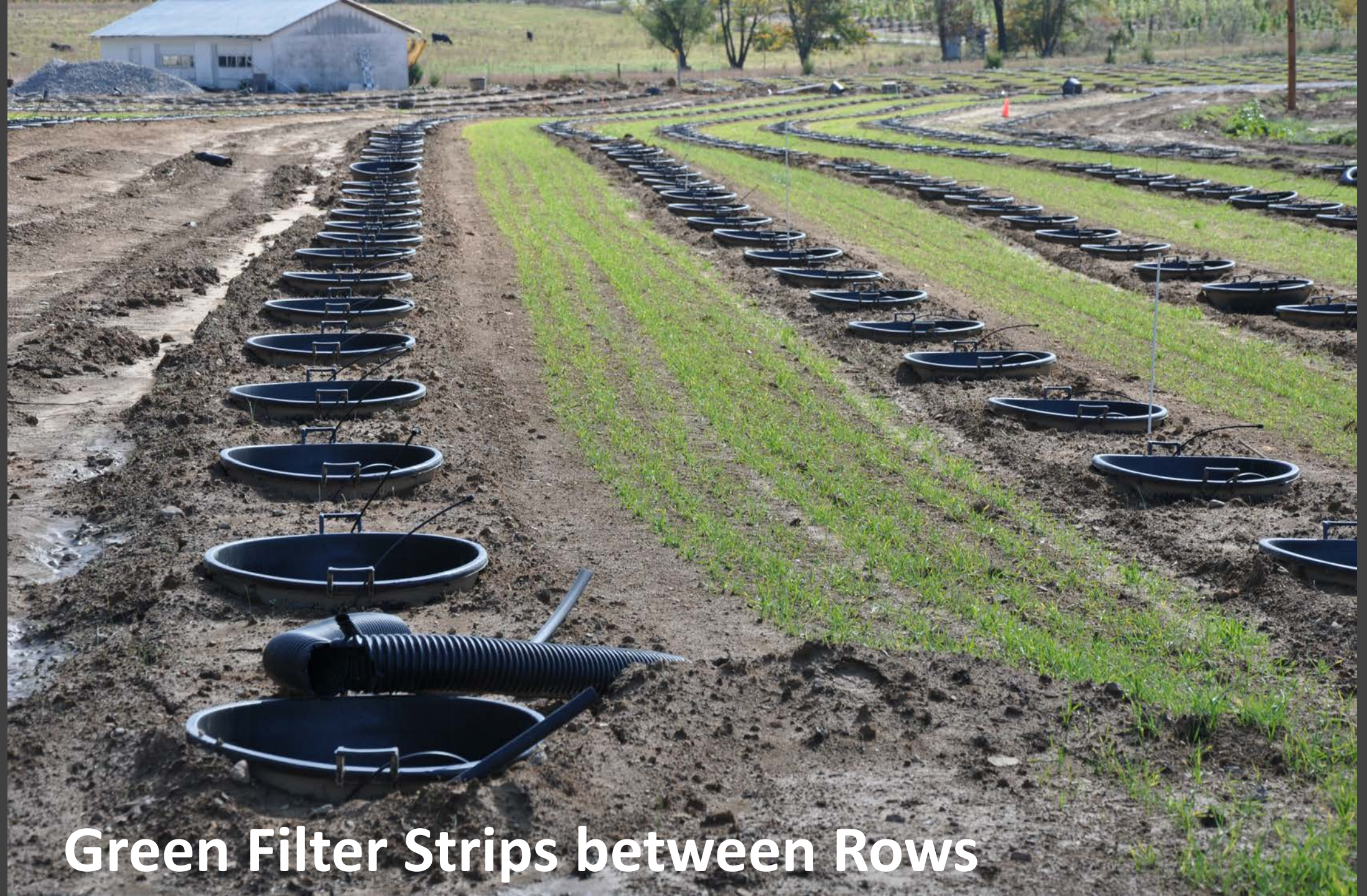
- **TO PREVENT NUTRIENT & SOIL RUNOFF**
- **TO REDUCE SUSPENDED MATERIALS IN SURFACE WATER**



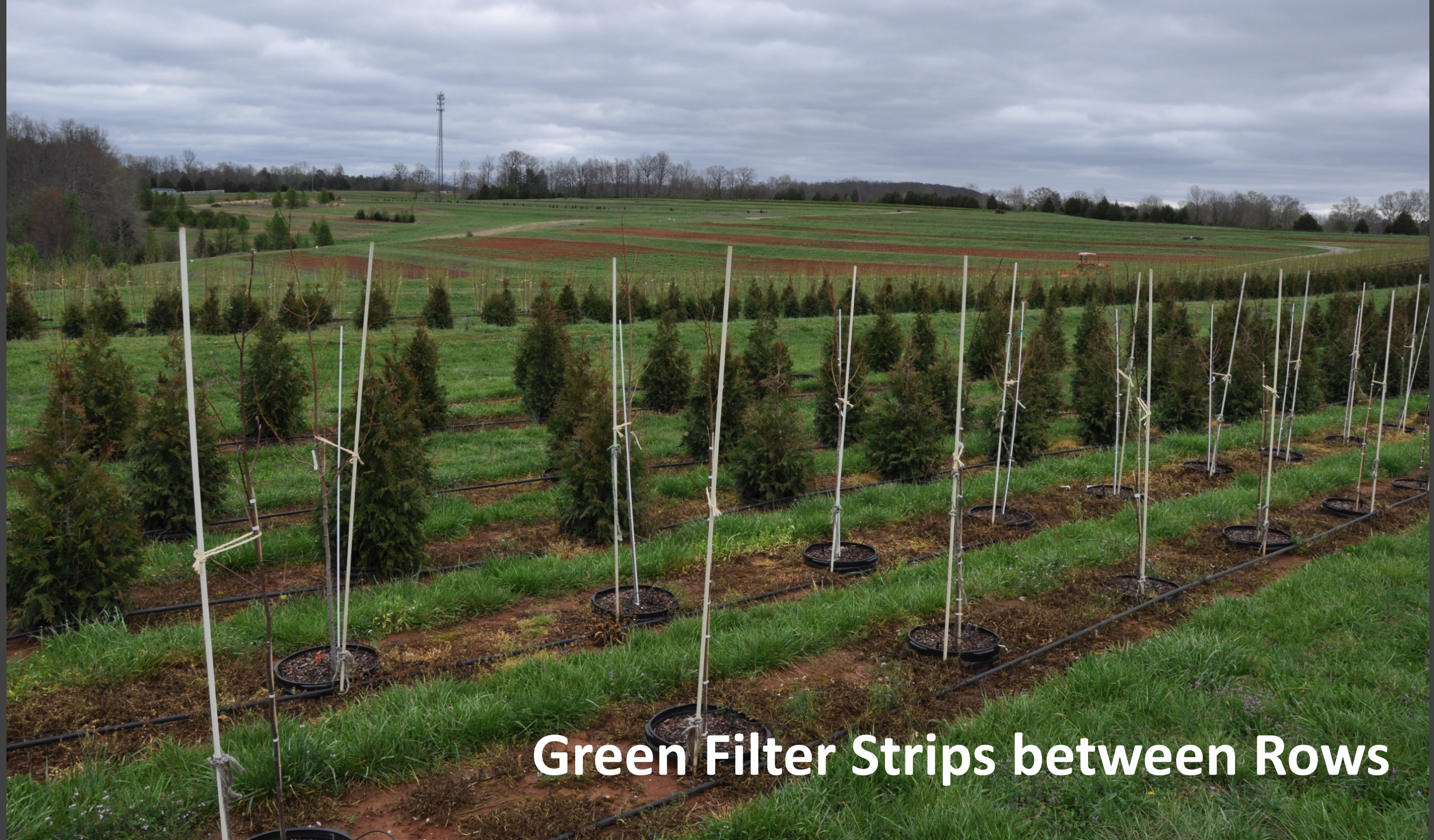








Green Filter Strips between Rows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