

# CSRA CONSERVATION TILLAGE DEMONSTRATION FARM: DEVELOPMENT AND OPERATION

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*REFERENCE:* J.E. Hook (ed.) *Proceedings of the 22<sup>nd</sup> Annual Southern Conservation Tillage Conference for Sustainable Agriculture*, Tifton, GA. 6-8 July 1999. Georgia Agriculture Experiment Station Special Publication 95. Athens, GA.

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## DEVELOPMENT

In 1996 representatives of the Burke County Extension Service, NutraSweet Company and Monsanto Ag Chemicals met to discuss the possibility of the development of a local farm to demonstrate conservation tillage and new technology developments. NutraSweet is Augusta company within Monsanto that has a Burke County land application program of their nitrogen-based by-product. NutraSweet owned a farm in the county consisting of 350 acres of row crop land, 120 acres of coastal Bermuda grass hay and 170 acres in other uses. Commitments were obtained by interested parties to plan and set up the project.

## ORGANIZATION AND MANAGEMENT

A board of directors was established to provide operation objectives and set goals for the farm. Representatives from the sponsors and cooperators as well as local farmers were chosen for the board. Crop objectives, conservation tillage goals and overall direction and operations are set by the board. Actual demonstrations and plot layouts and production decisions are made by the County Agent, board and farm manager. The initial development began in the fall of 1996, a farm manager was hired, minimal equipment bought or borrowed and cover crops and small grains established on 350 acres.

## FINANCING/OPERATION

The farm was established from donated funds and support from Monsanto, NutraSweet and a land application company, BioGrow (the contractor for the NutraSweet by-product). Expansion in 1997 came with John Deere as a sponsor of equipment needs. NutraSweet provides the use of the farm and, along with Monsanto and BioGrow, more than \$70,000 in annual operating funds. We solicited \$80,000 in products and services for the annual operation in addition. In fall of 1998 we received more than \$200,000 in grant funds from NutraSweet to irrigate 200 acres of the farm. Valley Irrigation and a local dealer

supplemented the funds to provide new technology in irrigation equipment to maximize the efficiency of water use and delivery. Netafim Corporation cooperated in a subsurface drip irrigation project on the farm to irrigate 10.5 acres with drip tape. An Extension Engineer is cooperating on both projects to develop better irrigation efficiency data for Georgia farmers.

Operation direction, recommendations and crop production information are provided by the Burke County Extension Service. The farm is a supporter of the East Central Georgia Conservation Tillage Alliance and cosponsored the 1999 Annual Meeting of the Georgia Conservation Tillage Alliance. Crop proceeds are returned to the operation of the farm and improvements. Additional income is used to fund scholarships for students pursuing a career in agriculture or related fields. No cooperators in the project receive profits from the farm and its operation..

As a result of farm success, collaborative efforts have brought other agencies into farm activities including Burke County Extension Service, Natural Resources Conservation Service, Brier Creek Soil and Water District, Central Savannah River Area Rural Community and Development Council, USDA Agricultural Research Service, Georgia Department of Natural Resources and other supporting agencies. They provide the cooperation for operation and special activities of the farm. Researchers from The University of Georgia are involved in demonstration plots on the farm. The farm is a Monsanto Center of Excellence farm representing Georgia and the Southeast.

Long term sampling is ongoing for organic matter and nutrient levels to provide farmers with information of the effects of conservation tillage on improving coastal plain soils. USDA researchers with Agricultural Research Service in Watkinsville, GA and Florence, SC are cooperating on measures of soil properties on conservation versus conventional sites.

Tall Timber Research Institute in Tallahassee, FL is cooperating on a quail habitat study on the farm as related to conservation tillage and the effect on feeding and chick survival.

We are in the process of developing a newsletter to be sent several times a year on farm activities, demonstration results and economics. The candidate has developed a Web page for conservation tillage which will be maintained

as a resource on conservation tillage and CSRA farm activities. Both activities are supported by funds from NutraSweet Corporation.

The farm plan consists of local crops in rotation with comparison strips of conservation tillage and conventional tillage. Crops include corn, cotton, peanuts, soybeans, wheat, rye and other speciality crops on a trial basis. While most of the fields are in strip tillage, there are some areas with no-till or conventional planting to provide comparison information on yield, economics, organic matter and weed control.

New technology is highlighted on the farm with

transgenic crops, new varieties, new production practices, sub-surface drip irrigation. The relationship with Monsanto has provided access too much of the new varietal technology to demonstrate to farmers before it is commercially available.

The farm is open to the public daily and visitors are encouraged. An annual field day is held the third Thursday of July each year and special tours can be arranged. Farmer involvement is a central focus of the farm. The overall purpose is as a farm scale demonstration site to develop and share conservation tillage information.