

Proceedings of the 1993 Southern Conservation Tillage Conference for Sustainable Agriculture

Monroe, Louisiana
June 15-17, 1993

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Special recognition and thanks are extended to the Tennessee Valley Authority
for the continued support and publication of these proceedings.

Approved for publication by the Director of the Louisiana Agricultural
Experiment Station as Manuscript Number 93-86-7122.

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ACKNOWLEDGMENTS

The planning committee for the 1993 SCTCSA gratefully acknowledges the special assistance of Dr. William H. Brown, Dr. R. Larry Rogers, Mr. Jack Lord, and Mrs. Sheila Shirley in making plans for the conference. The committee and, especially, the editor also recognize Mrs. Darlene Regan and Mrs. Kim Guidry for the hard work and effort devoted to the assembly of these proceedings.

FOREWORD

Interest in conservation tillage in Louisiana dates back nearly 30 years. In 1964, LSU Agricultural Center researchers experimented with planting cotton into hairy vetch with a mulch tillage planter. Paraquat was applied to kill the vetch and other vegetation. They produced 2,613 pounds with conventional tillage. They repeated the trial again in 1965 with similar results.

But, in the 1960s, fuel and fertilizer were cheap, most tractors lacked the horsepower to pull a mulch tillage planter, and cultivation was essential for control of many weeds, especially johnsongrass. Although these early efforts proved successful, interest in this system did not catch on.

Rising production costs, more powerful tractors, improved herbicide technology, and public concern over soil and water conservation have led to increased interests in conservation tillage. In 1991, Louisiana farmers were practicing conservation tillage on more than 600,000 acres of the state's **3.5** million planted acres of cropland.

Conservation tillage has a wide variety of applications across Louisiana. Intensive residue management is the primary means of controlling erosion and meeting conservation compliance standards on nearly 250,000 acres of highly erodible cropland in the state. Delta row crop farmers employ conservation tillage for soil management and timely planting on their clayey alluvial soils. On the prairies of southwestern Louisiana, rice farmers are using conservation tillage to improve surface water quality.

Growth of conservation tillage in the South has been evolutionary, rather than revolutionary. In 1991, conservation tillage was used on 15 percent of the planted acreage in the Delta states, as compared with 28 percent nationwide. While this is 13 percent below the national average, 31 percent of the Delta states cropland is planted to cotton and rice. Conservation tillage technology has only recently begun to evolve for these two important crops.

The 1993 conference theme, "The Evolution of Conservation Tillage Systems," will focus on the continuing evolution of conservation tillage systems for the Southern Region, which are achieving soil and water conservation goals. We at the Louisiana Agricultural Experiment Station, the Louisiana Cooperative Extension Service, and the USDA • Soil Conservation Service appreciate the opportunity to host the 1993 conference and to further the development of conservation tillage to sustain crop production systems. "Bienvenue en Louisiane, L' etat des bayous."

Richard C. Aycock