

Table of Contents

Foreword

J. Paul Mueller and M. G. Wagger.....

ii

Conservation Tillage and Environmental Quality

Using Winter Cover Crops to Recycle Nitrogen and Reduce Leaching J. J. Meisinger, P. R. Shipley, and A. M. Decker	3
Herbicide Mobility During Initial Infiltration Events D. E. Radcliffe, S. C. Chiang, and J. A. Tindall	7
Pesticide Concerns in Conservation Tillages W. W. Witt	10

Elements for Sustainable Farming

What Conservation Compliance Means to Farmers Maurice G. Cook.....	15
The Role of Integrated Pest Management in Sustainable Agricultural Systems H. Michael Linker	19
Conservation Tillage and Soil Tilth: A Sustainable Combination D. L. Karlen	22
Waste Management Alternatives J. P. Zublena	26
Role of Conservation Tillage in Sustainable Agriculture W. L. Hargrove	28

Pest Management in Conservation Tillage Systems

Integrating Conservation-Tillage and Crop Rotation for Management of Soybean Cyst Nematode S. R. Koenning, D. P. Schmitt, and B. S. Sipes.....	35
Early Planting Reduces Fall Armyworm Problems in No-Till Tropical Corn I. D. Teare, D. L. Wright, and R. K. Sprenkel.....	38
Weed Management Strategies for Conservation Tillage in the 1990's A. Douglas Worsham	42
Evidence for Weed Suppression Due to Intercepted Paraquat on a Rye (<i>Secale cereale</i>) Straw Mulch (Abstract) T. Wiepke and A. D. Worsham	48
Evaluation of Rye Varieties for Weed Suppression in No-Till Corn (Abstract) J. A. Hinen and A. D. Worsham	49

Energy and Equipment Considerations

Energy and Conservation for the 1990s W. W. Frye.....	53
Tillage Requirements for Corn as Influenced by Equipment Traffic on a Compactable Coastal Plain Soil D. W. Reeves, J. A. Doppers, and J. B. Powell.....	58
Georgia Rent-a-Drill Program "No-Till Saves Oil and Soil" (Abstract) J. M. Hayes.....	62

Conservation Tillage Production Systems

Long Term Wheat and Soybean Response to an Intercropping System N. W. Buehring, D. B. Reginelli, and M. A. Blaine.....	65
Performance of Corn, Wheat, and Cotton in a Two-Year Rotation on a Norfolk Loamy Sand Soil After 10 Years of Conservation or Conventional Tillage P. G. Hunt, T. A. Matheny, D. L. Karlen, and S. H. Roach.....	69
Conservation Tillage Interseeding of Soybeans into Standing Wheat A. Khalilian, C. E. Hood, J. H. Palmer, T. Whitwell, and S. U. Wallace.....	72
No-Till and Reduced Tillage Production of Grain Sorghum under Dryland Conditions J. E. Matocha.....	77
Planting Tropical Corn in Minimum Tillage Systems D. L. Wright, D. P. Lilly, and I. D. Teare.....	81
Tillage Effects on Infiltration and Crop Yields (Abstract) G. C. Naderman and M. G. Wagger.....	84

Winter Annual Cover Crops

Strip-Till Management of Crimson Clover for a Self-Reseeding, Year-Round Ground Cover in Piedmont, North Carolina Corn Production C. R. Crozier and L. D. King.....	87
Influence of Cover Crop, Perennial Sod, and Crop Rotation on Soybean Growth and Yield J. H. Edwards, D. L. Thurlow, J. L. Holliman, and M. D. Pegues.....	90
Choosing a Legume Cover Crop for No-Till Corn G. D. Hoyt.....	94
Residual Effects of Cover Crops and Fertilizer N in a No-Tillage Corn System Kyaw Yee and Jac. J. Varco	98
Effects of Legume Cover Crops and Tillage on Grain Sorghum Yield D. B. Reginelli, N. W. Buehring, W. F. Jones, and J. J. Varco.....	101
Managing Winter Annual Legumes as Nitrogen Sources for Corn on Sandy Coastal Plain Soils J. R. Anderson, Jr., N. L. Hubbard, F. D. Shaw, and F. W. Smith.....	104