Features

134 Editorial: Why a special issue?  
By Max Schnepf

136 Viewpoint: Why conservation tillage?  
By Peter C. Myers

140 What is conservation tillage?  
By Jerry V. Mannering and Charles R. Fenster

144 Conservation tillage for erosion control  
By W. C. Moldenhauer, G. W. Langdale, Wilbur Frye,  
D. K. McCool, R. L. Papendick, D. E. Smika,  
and D. William Fryrear

149 Conservation tillage for erosion control  
By John E. Morrison, Jr., and Thomas J. Gerik

152 Soil suitability for conservation tillage  
By Harold R. Cosper

156 Conservation tillage use  
By Lee A. Christensen and Richard S. Magleby

158 Sharing conservation tillage information  
By James E. Lake

160 Progress in no-till  
By Arnold D. King

162 Obstacles to adoption of conservation tillage  
By Peter J. Nowak

166 Land tenure and adoption of conservation tillage  
By Linda K. Lee

169 Selling conservation tillage  
By G. W. Martin and J. T. Touchton

182 Conservation tillage systems: A research perspective  
By John E. Morrison, Jr., and Thomas J. Gerik

186 Water quality consequences of conservation tillage  
By J. L. Baker and J. M. Lafflen

194 Weed control: A panel discussion  
By Maureen K. Hinkle

201 Insect and slug pests in forage legume seedlings  
By R. A. Byers, R. L. Mangan, and W. C. Templeton, Jr.

207 Energy implications of conservation tillage  
By William Lockeretz

212 Conservation tillage impacts on wildlife  
By Randy D. Rodgers and James B. Wooley

214 Legumes as a cover crop and source of nitrogen  
By J. F. Power, R. F. Follett, and G. E. Carlson

217 Conservation tillage in small grain production  
By John D. Walker

221 Conservation tillage for forage Brassicas  
By Gerald A. Jung, Willis L. McClellan, Robert A. Byers,  
Robert E. Kocher, Lynn D. Hoffman, and Harold J. Donley

231 Wide beds with conservation tillage  
By Allen F. Wiese and Paul W. Unger

239 Irrigation + dryland farming + limited tillage: A profitable combination  
By John A. Knapp

240 Conservation tillage in small grain production  
By Robert E. McDole and Stephen A. Reinertsen

244 STEEP, an interagency, multidisciplinary approach to soil conservation  
By Robert E. McDole and Stephen A. Reinertsen

246 Fertilizer placement: A primer  
By Larry Murphy
Research reports

281 Factors affecting farmers' adoption of conservation tillage
Gordon L. Bultena and Eric O. Hoiberg

284 Conservation tillage in an Iowa county
Betty L. Wells, Timothy O. Borich, and Jack D. Frus

287 Impact of tenure status on economic incentives for conservation tillage
Herbert R. Hinman, Steve G. Mohasci, and Douglas L. Young

291 Economics of conservation tillage in Iowa
Robert W. Jolly, William M. Edwards, and Donald C. Erbach

294 Economics of conservation tillage systems for winter wheat production in Oklahoma
Francis M. Epplin, Thomas F. Tice, Steven J. Handke, Thomas F. Peper, and Eugene G. Krenzer, Jr.

301 Influence of conservation tillage on soil properties
R. L. Blevins, M. S. Smith, G. W. Thomas, and W. W. Frye

305 Conservation tillage for long-term amelioration of plow pan soils

307 Soil compaction constraints on conservation tillage in the northern Corn Belt
W. B. Voorhees and M. J. Lindstrom

312 Residue management and cultural practices for a semiarid region
J. D. Bilbro and D. W. Fryrear

315 Long-term annual runoff and soil loss from conventional and conservation tillage of corn
Robert E. Burwell and Larry A. Kramer

Departments

270 In the news

250 Fertilizer placement for cereal root access
By Betty Klepper, Paul E. Rasmussen, and Ron W. Rickman

253 Conservation tillage in Ontario
By J. W. Ketcheson and D. P. Stonehouse

255 Changing farmer attitudes: An Ontario experience
By Jane Sadler Richards

258 Farmer experience with conservation tillage

267 Conservation tillage: Where to from here?
By Jerry C. Ritchie and Ronald F. Follett

Cover
Chisel plowing small grain stubble. Photo and cover design courtesy of Deere & Company.