

Contents

Chapter 1

- The Functional Approach to Agricultural Landscape Analysis 1
Lech Ryszkowski

Chapter 2

- Development of Agriculture and Its Impact on Landscape Functions 9
Lech Ryszkowski and Janusz Jankowiak

Chapter 3

- Mitigation of Radiation and Heat Balance Structure by Plant Cover Structure.... 29
Janusz Olejnik, Andrzej Kędziora, and Frank Eulenstein

Chapter 4

- Water Balance in Agricultural Landscape and Options for Its Management
by Change in Plant Cover Structure of Landscape 57
Andrzej Kędziora, Janusz Olejnik, and Frank Eulenstein

Chapter 5

- Control of Diffuse Pollution by Mid-Field Shelterbelts and Meadow Strips..... 111
**Lech Ryszkowski, Lech Szajdak, Alina Bartoszewicz,
and Irena Życzyńska-Bałoniak**

Chapter 6

- Implementation of Riparian Buffer Systems for Landscape Management 145
Richard Lowrance and Susan R. Crow

Chapter 7

- Dissolved Organic Substances in Water Bodies of Agricultural Landscapes 159
Barbara Szpakowska

Chapter 8

- Influence of Landscape Mosaic Structures on Diversity of Wild Plant
and Animal Communities in Agricultural Landscapes of Poland 185
**Lech Ryszkowski, Jerzy Karg, Krzysztof Kujawa, Hanna Gołdyn,
and Ewa Arczyńska-Chudy**

Chapter 9

- Field Boundary Habitats for Wildlife, Crop, and Environmental Protection..... 219
**Jon Marshall, Jacques Baudry, Françoise Burel, Wouter Joenje,
Bärbel Gerowitt, Maurizio Paoletti, George Thomas, David Kleijn,
Didier Le Coeur, and Camilla Moonen**

Chapter 10	
Changes in Landscape Diversity Patterns in the Province of Wielkopolska, Poland, Influenced by Agriculture.....	249
Andrzej Mizgajski	
Chapter 11	
The Impact of Agriculture on the Environment of the Northern Parisian Basin.....	263
Stanislas Wicherek	
Chapter 12	
Models Assessing the Impact of Land-Use Change in Rural Areas on Development of Environmental Threats and Their Use for Agricultural Politics	277
Armin Werner and Peter Zander	
Chapter 13	
Ecological Guidelines for the Management of Afforestations in Rural Areas ...	299
Stanisław Bałazy	
Chapter 14	
Land Units and the Biodiversity of Forest Islets: From Satellite Images to Ground Analysis.....	317
Marc Galochet, Vincent Godard, and Micheline Hotyat	
Chapter 15	
Agrolandscape Ecology in the 21st Century	331
Gary W. Barrett and Laura E. Skelton	
Chapter 16	
Agriculture and Landscape Ecology	341
Lech Ryszkowski	
Index	349