

TABLE OF CONTENTS

Climatic factors	1
Soil	29
Classification	29
Structure and Composition	35
Acidity and Crop Response	43
Salinity and Crop Response	53
Organic Matter, Crop Residues, and N ₂ Fixation	67
Animal Manures and Sewage Sludge	81
Plant Nutrient Uptake	87
Commercial Fertilizers	98
Plants	109
Names and Distribution	109
Seeds and Seed Certification	124
Seeding Rates	171
Environment	176
Water Stress and Irrigation	178
Productivity	198
Roots	219
Tillage and Rotations	223
Pest and Other Losses	231
Losses in Plants	231
Losses in Animals	266
Horticultural Crops	273
Storage	273
Selected Nutrients	280
Oilseeds — Composition and Feeding	285
Cereal Grains	295
Composition and Feeding	295
General	295
Wheat	306
Triticale	309
Oats and Wild-Rice	314
Sorghum	318
Corn	323
Physical Properties and Drying	331
Seed Conditioning	341
Forage	353
Hay Grades	353
Harvesting, Composition, and Feeding	355
Dehydrated Forage	365
Leaf Protein	369
Roughages	371
Silage Crops — Composition and Feeding	373
Sugar Crops and Tobacco — Composition	385
Animals	389
General	389
Reproduction	389
Feeding	393
Environment	402

Production and Feeding	409
Cattle	409
Beef Cattle	409
Dairy Cattle	411
Swine	418
Sheep	422
Poultry	423
Horses	427
Environmental Control of Livestock	431
Meat, Milk, and Eggs — Grades and Composition	433
Comparative Productivity	453
Conversion Factors	455
Common Statistical Terms	461
Statistical Tables	463
Glossary	473
Index	487