

1. Record Nr.	UNINA9910780319503321
Titolo	Integrated plant nutrient management in Sub-Saharan Africa [[electronic resource]] : from concept to practice // edited by B. Vanlauwe ... [et al.]
Pubbl/distr/stampa	Wallingford, Oxon, UK ; ; New York, NY, USA, : CABI Pub. in association with the International Institute of Tropical Agriculture, c2002
ISBN	1-280-82971-0 9786610829712 0-85199-885-2
Descrizione fisica	1 online resource (366 p.)
Altri autori (Persone)	VanlauweB (Bernard)
Disciplina	631.4/2/0967
Soggetti	Soil fertility - Africa, Sub-Saharan Fertilizers - Africa, Sub-Saharan Crops - Nutrition - Africa, Sub-Saharan Plant nutrients - Africa, Sub-Saharan
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contributors; Preface; Introduction; 1 Forty Years of Soil Fertility Work in Sub-Saharan Africa; 2 Soil Fertility Replenishment Takes Off in East and Southern Africa; 3 A Systems Approach to Target Balanced Nutrient Management in Soils of Sub-Saharan Africa; 4 In for a Penny, in for a Pound: Strategic Site-selection as a Key Element for On-farm Research that Aims to Trigger Sustainable Agricultural Intensification in West Africa; 5 Agricultural Transformation and Fertilizer Use in the Cerealbased Systems of the Northern Guinea Savannah, Nigeria 6 Partial Macronutrient Balances of Mucuna/Maize Rotations in the Forest Savannah Transitional Zone of Ghana 7 Process Research and Soil Fertility in Africa: Who Cares?; 8 Fertilizer Equivalency Values of Organic Materials of Differing Quality; 9 Plant N Uptake from Plant and Animal Organic Residues, Measured Using the Soil Pre-labelling ¹⁵ N Isotope Dilution Approach; 10 Contribution of Organic Residues to Soil Phosphorus Availability in the Highlands of Western Kenya; 11 Resource Acquisition of Mixed Species Fallows - Competition or

Complementarity?

12 Targeting Management of Organic Resources and Mineral Fertilizers: Can we Match Scientists' Fantasies with Farmers' Realities? 13 Direct Interactions between N Fertilizer and Organic Matter: Evidence from Trials with ¹⁵N-labelled Fertilizer; 14 On-farm Evaluation of the Contribution of Sole and Mixed Applications of Organic Matter and Urea to Maize Grain Production in the Savannah; 15 Yield Trends, Soil Nitrogen and Organic Matter Content During 20 Years of Continuous Maize Cultivation

16 Meeting the Phosphorus Needs of the Soils and Crops of West Africa: the Role of Indigenous Phosphate Rocks 17 Options for Increasing P Availability from Low Reactive Phosphate Rock; 18 Phosphorus Uptake from Sparingly Available Soil-P by Cowpea (*Vigna unguiculata*) Genotypes; 19 Improving Phosphate Rock Solubility and Uptake and Yields of Lowland Rice Grown on an Acidic Soil Amended with Legume Green Manure; 20 Decision Making on Integrated Nutrient Management through the Eyes of the Scientist, the Land-user and the Policy Maker

21 Legumes: When and Where an Option? (No Panacea for Poor Tropical West African Soils and Expensive Fertilizers) 22 Options for Soil Organic Carbon Maintenance under Intensive Cropping in the West African Savannah; 23 On-farm Research and Operational Strategies in Soil Fertility Management; 24 Recommendations; Index

Sommario/riassunto

Soil degradation and nutrient depletion have become serious threats to agricultural productivity in Africa. Soils cannot supply the quantities of nutrients required and yield levels decline rapidly once cropping commences. This book addresses these issues.