

SESSION 5**NUTRIENT DYNAMICS AND CYCLING PROCESSES, ASSESSMENT OF
NUTRIENT DEMAND, FERTILIZER APPLICATION IN AGROFOR-
ESTRY SYSTEMS***Introduction*

- Principles of fertilization in agroforestry systems
E. WELTE, GERMANY 465

Contributions

- Effects of an extensive agrosilvocultural land use system on nitrogen dynamics
and plant growth
D. RAUCH and H. BOHNE, GERMANY 471
- Results of long-term K and Mg fertilizer experiments in afforestation
E. UEBEL and D. HEINSDORF, GERMANY 479
- Calculating the input of organic matter to soil in three wooded sites
K. COLEMAN, N. J. BRADBURY and D. S. JENKINSON, U.K. 491
- Estimation of regional nitrogen leaching in the North-East German area for dif-
ferent land use scenarios using a regionalized simulation model
K. C. KERSEBAUM, W. MIRSCHEL and K.-O. WENKEL, GERMANY. 501
- Biomass production with *Miscanthus sinensis* "Giganteus" - first results con-
cerning yield, water use and nitrate leaching
U. B. DRESSLER and H. HERZOG, GERMANY 515
- Effects of calcium sulphate on salt tolerance, root development and nitrogen
fixation by *Leucaena leucocephala*
H. H. HELAL and M. RAGAB, GERMANY and EGYPT 517
- Release and plant availability of nitrogen-15 from *Leucaena leucocephala*
H. M. HELAL, M. RAGAB and M. A. ABDEL MONEM, GERMANY and
EGYPT. 523
- The potential of nuclear techniques in agroforestry research
M. W. QUIST, THE NETHERLANDS. 529

SUPPLEMENT SESSION**EXPERIENCE IN AGROFORESTRY IN TROPICAL AND SUBTROPICAL
REGIONS - 4 COMPARATIVE STUDIES**

- Potentials and limitations of agroforestry for changing land-use in the tropics
(Experiences from Central America)
R. G. MUSCHLER and A. BONNEMANN, COSTA RICA 547