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Sommario/riassunto

Intended as guide for designing the fertilization system in oil palm plantations, this book explains in clear language how to define fertilizer recommendations for each plantation, considering the specific characteristics of each site. The authors present the principles for interpreting the results of plant tissue analysis, mainly leaflets, taking into account the influence of factors specific to each plantation (age, plant material, climate, soil). They detail how to experimentally determine site-specific reference levels of mineral elements and sampling rules for monitoring the nutritional status of the plantation. Priority is given to the most specific facies (soil, plant material) of the planted areas rather than to an average representation of the plots. This guide explains how to create fertilization schedules to achieve optimal leaf contents from experimentation, and to compare these data with information from geographic information systems. This decision support system is designed to be valid in all situations. In addition to the economic optimization of fertilization, environmental concerns are considered: soil health and absorption efficiency must be integrated into the fertilization strategy by optimizing cultivation practices for fertilizer application and organic matter management. This guide is illustrated by numerous examples from trials in various soil, climate and plant material conditions in Africa and Latin America.