

# SOME INDIGENOUS CROPPING SYSTEMS OF EASTERN NIGERIA

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## SUMMARY

In Eastern Nigeria, except in the dry zone, root crops are very important in all rotations and provide the basic staples. Whereas much early work on rotations was concerned with the fallow period and the way in which this restored fertility, little was done on the nutrition of the crops in the economic part of the rotation. A traditional rotational cropping system comprises a two-years arable phase followed by one or more years of natural bush fallow. In this part of Nigeria, in the rain forest zone, tuberous root crops dominate the cropping systems. For several reasons, the traditional arable rotation has been challenged and numerous variants have been developed and are in use in different agricultural zones.

## RESUME

A l'Est du Nigéria, sauf en saison sèche les plantes à racine sont très importantes dans toutes les rotations et fournissent les denrées de basse.

Alors qu'un nombre important des premiers travaux consacrés aux rotations s'étaient consacrés à la période de jachère et comment celle-ci restaure la fertilité, peu de choses étaient faites sur la nutrition des plantes dans l'aspect économique de la rotation. Un système traditionnel de culture à rotation comporte un premier stade arable de deux ans suivi d'une ou de plusieurs années de jachère naturelle. Dans cette région du Nigeria, dans la zone forestière pluvieuse, les plantes à racine tubéreuse dominent les systèmes de culture. Pour plusieurs raisons, la rotation arable traditionnelle est en voie de régression et diverses variantes ont vu le jour et sont pratiquées dans les différentes zones agricoles.

## RESUMEN

En Nigeria Oriental, excepto en la zona seca, los cultivos con raíces comestibles son muy importantes en todas las rotaciones y proveen los artículos básicos de consumo. En tanto que una gran parte de los primeros trabajos sobre rotaciones se refirió al período de descanso de la tierra y a como éste restaura la fertilidad del suelo, muy poco se hizo sobre nutrición de cultivos y el papel económico de la rotación. Una rotación tradicional de cultivos abarca una fase de dos años de uso, seguido por uno o más años de descanso. En esta parte de Nigeria, en la zona de bosque lluvioso, los cultivos con raíces tuberosas dominan como sistema de cultivo. Por diferentes razones, la rotación tradicional ha sido cuestionada y se han desarrollado numerosas variantes que están en uso en diferentes zonas agrícolas.

## INTRODUCTION

The agricultural situation in South Eastern Nigeria is one of very heavy population and offers a challenging opportunity to study the problems encountered by the subsistence farmer in such regions of the humid tropics. As one moves from the more sparsely populated to the more densely populated parts of the Eastern Region of Nigeria, one witnesses a transition from the so-called 'shifting cultivation' to a more settled cropping system, employing bush fallow to maintain or regenerate soil fertility. Travelling along the major highways during the early part of the growing season, which extends from March to June, one observes also different soil management practices and an amazing combination of crops in mixed cultivation, with dominance of root crops, notably cassava, yams and cocoyams, in that order of importance.

Several writers have described the system of farming in South Eastern Nigeria, a good deal of which lies within what is generally known as the 'oil palm belt.' Vine<sup>15</sup> and Sly<sup>11</sup> briefly described the system, but recently, Obi and Tuley<sup>8</sup> gave a more detailed account of the different types of farms, as well as the structure and merits of the bush fallow. Early experiments in the maintenance of soil fertility were also described.

In the past, considerable attention has been devoted in Nigeria to the study of the fallow phase of arable crop rotations with a view to better understanding its role, and as a basis for devising an alternative based on green manures or planted fallows which could be as efficient as, or better than natural bush in maintaining soil fertility. A good account of earlier work is given in the Third West African Conference papers<sup>12</sup>. More recently, Vine<sup>15</sup>, Nye and Hutton<sup>9</sup>, Nye<sup>10</sup>, Kowal and Tinker<sup>6</sup>, Tinker and Ziboh<sup>13</sup> and Tinker<sup>14</sup> continued the work but with special reference to oil palm production. Unfortunately, much less

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