

A CHANGE OF SUBSISTENCE STAPLE IN PREHISTORIC NEW GUINEA

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SUMMARY

Replacement of taro by sweet potato which began from 300–500 years ago is continuing. Sweet potato is less demanding both for site and for labour and is able to support population expansion more readily. Taro continues to be the preferred crop and has religious and cultural associations not shared by sweet potato. Factors relating to the change of crop are described.

RESUME

Le remplacement du tarot par la patate douce qui commença il y a 300–500 ans est toujours en cours. La patate douce est moins exigeante quant au terrain et aux travaux qu'elle impose et peut suivre l'évolution de l'accroissement de la population.

Le taro continue d'être préféré et reste lié aux traditions religieuses et culturelles, ce qui n'est pas le cas avec la patate douce. Les facteurs liés au changement de cette plante ont été exposés.

RESUMEN

El reemplazo de la malanga** por el camote***, iniciado hace unos 300–500 años, continúa. El camote es menos exigente en cuanto al sitio en que se cultiva y en cuanto a fuerza de trabajo y es capaz de soportar la expansión de la población más fácilmente. La malanga continúa siendo el cultivo preferido y tiene asociaciones religiosas y culturales no compartidas por el camote. Se describen los factores relacionados con el cambio de cultivo.

INTRODUCTION

Even a casual observer of subsistence agriculture in the highlands of New Guinea becomes aware of the importance of the sweet potato (*Ipomoea batatas* (L.) Lam.) as a food plant. The literature attests the preponderant importance of this crop. Barrau, writing of lands above 1500 m, refers to the sweet potato as ". . . the staple subsistence crop of mountain dwellers in New Guinea". Brookfield⁴ also noted the highlanders' heavy dependence on the sweet potato as a characteristic distinguishing these people from other closely settled populations at similar elevations elsewhere in the tropics. Pospisil writes¹⁷ that more than 90 percent of the area of gardens among the Kapauku of Irian Jaya was planted to sweet potatoes. Hundreds of miles to the east in Papua New Guinea among the Chimbu group that Hipsley and Kirk⁹ studied in 1962 or the Fore families observed by Reid and Gajdusek¹⁸ in 1957, sweet potatoes contributed at a minimum 70 percent of the people's total intake of calories.

Not only is the sweet potato the dominant crop over much of the central range of New Guinea, but it is grown under a variety of specialized local techniques, including the making of small mounds, the composting of large mounds, the making of grid-iron-ditched plots on dry land, the fertilization of swamp-garden plots with ditch spoil, quasi-terracing, the tillage of grassland soil, and the use of untilled forest soil under a system of long-fallow slash-and-burn cultivation.

However, even though the sweet potato is the commonest crop, the major source of calories, and is planted in regionally specialized ways, this crop has been considered only to have been introduced into montane New Guinea within the past 300–500 years^{13,23}. Before the sweet potato's introduction, it is assumed that ancient Asian crops, particularly taro (*Colocasia esculenta* (L.) Schott), provided the major source of food to montane New Guineans^{5,6}.

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** Nota del Traductor: *Colocasia* es conocida como Malanga en diversos países de habla hispana como Cuba y México. Especies de *Xanthosoma* son a veces mencionadas como Malanga. *Colocasia* se conoce como Taro en Hawaii.

***Nota del Traductor: el camote (sweet potato) es conocido en diversos países de habla hispana como batata dulce, batata o boniato.