

THE SAGO PALM: A POTENTIAL COMPETITOR TO ROOT CROPS

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SUMMARY

Cultivated sago palms in West Malaysia are estimated to produce 24 t/ha/year of dry starch from the harvesting of 130 palm trunks per hectare. Semi-wild palms on peat soils in Sarawak probably produce about half of this (60 trunks per hectare). Such yields from an unimproved crop suggests that the sago palm deserves more attention than it has received in the past. Speculations are made by comparison with the recorded growth of oil palms, suggesting that the production of 270 tons of de-barked pith equivalent to 54 tons of dry starch per hectre might be possible to obtain through research and its application.

RESUME

On estime que les sagoutiers cultivés en Malaisie Occidentale produiront 24 tonnes d'amidon sec par an à partir de la récolte de 130 troncs de sagoutiers à l'hectare. Les sagoutiers semi-sauvages cultivés en sols organiques au Sarawak pourraient en produire la moitié (60 troncs à l'hectare). De tels rendements obtenus de plante non améliorée indiquent que le sagoutier mérite plus d'attention que par le passé. Considérant la croissance connue des palmiers à huile, on pense qu'il n'est pas impossible d'obtenir, grâce à la recherche et à ses applications, une production de 270 tonnes de cervelle de la plante.

RESUMEN

Se estima que las palmas sagú, cultivadas en Malasia Occidental producen 24 t/ha/año de almidón deshidratado como producto de la cosecha de 130 troncos de palma por hectarea. Las palmas semi-silvestres de Sarawak, producen cerca de la mitad de esa cantidad (60 troncos por hectarea). Tales rendimientos, a partir de un cultivo no mejorado, sugieren que la palma sagú requiere mas atención que la que se la ha dado en el pasado. Se especula por comparación con el crecimiento registrado de palmas de aceite, sugiriéndose que mediante investigación y aplicación de la misma, sería posible obtener 270 ton, de medula, descortezada, equivalente a 54 ton. de almidón deshidratado por hectarea.

INTRODUCTION

Sago is the starch which the sago palm accumulates in its trunk. The pith of a sago trunk has the composition as given in Table 1, the dry matter composition closely resembles that of cassava roots and sago can be used for the same purposes, i.e. for human food, for preparation of industrial starches and also as an animal feed.

Rasped and dried sago pith has been used for a long time as a feed for pigs and poultry and refuse from sago starch factories is used as a feed for pigs and cattle. It is likely that rasped, dried and pelletized sago pith will be completely acceptable for the animal feed industry.

BOTANY AND CULTIVATION OF THE SAGO PALM

The palm genus *Metroxylon* consists of some six species. The name is derived from Greek, *metra* meaning pith and *xylon* meaning xylem. The genus is indigenous in the lowlands of a southeast Asia and Melanesia. It occurs between 10°N and S up to a height of 700 m. Most species are found on and around New Guinea which probably is the gene centre. The economically most important species are *M. sago* Rottbol and *M. rumphii* (Wild.) Martius. The latter name was given in hour of Rumphius (1755) who, in his 'Amboinsch Kryd-boek' gave the first description of the palm accompanied by a drawing. The main difference between the two species is that *M. sago* has no thorns, whereas in *M. rumphii* the leaf sheath and petiole are covered by sharp thorns up to 8 cm long. Barrau¹ considers that the two taxa should be conspecific as they appear to cross readily. This was proven in our department: the offspring of two unthorned palms in the Singapore Botanical Gardens also gave a few thorned palms.

Under natural conditions the palm occurs in fresh water swamps in the tropical rain first zone. Isolated palms occur outside this natural habitat and appear to do well, provided they are tended properly. Probably

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