

Major Banana Cultivars in Pacific Atoll Countries

by Brian Watson*

Two of the four states of the Federated States of Micronesia (FSM), plus the Marshall Islands, Kiribati, Tuvalu and Cook Island, were visited in October/November 1990 as part of a

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consultancy on the introduction of fruit and nut trees to these atoll countries (Figure 1). While there, the major banana cultivars present were identified and classified (Table 1). The most popular varieties in the region are Bluggoe, Saba, Mysore, Blue Java, Rokua Mairana, Silk and Cavendish.

The banana crop is extremely important on most atolls although production is usually best on locations

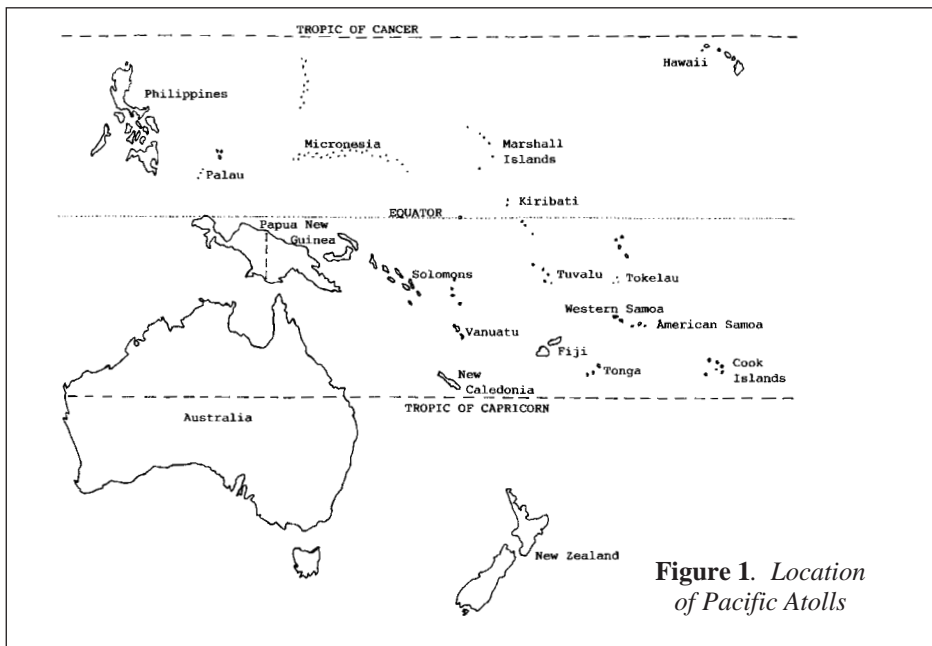


Figure 1. Location of Pacific Atolls

Figure 2. Rokua Mairana (ABBB) is a Kalapua-like cooking banana highly resistant to black Sigatoka

Figure 3. Saba (ABB/BBB) is highly resistant to black Sigatoka



Table 1: Major Banana Cultivars in Atoll Countries of Micronesia and Central Pacific

Genome	Stover & Simmonds Classification	Yap & Atolls (FSM)	Pohnpei & Atolls (FSM)	Majuro I. (Marshall Is.)	Tarawa I. (Kiribati)	Funafuti I. (Tuvalu)	Tokelau	Northern Cook Islands
AA	Sucrier n.a.	Suga Lakatan	- Lakatan	- Lakatan	- -	- -	- -	- -
AAA	Dwarf Cavendish Williams Giant Cavendish Robusta/Valery Red	P - - Taiwan -	P Utin Wai Tunwai Taiwan -	Chinese - - Brown	- - P -	Fuamaulolo Williams - Fuamaulunga Brown	- - - -	- ? Local Cavendish - -
AAB	Mysore Silk Pome Maia Maoli/Popoulu	Florida Taneyboch - American	Utin Fiji Utin Menihla - -	Fiji/Jilubuki Manila/Apple - Ailingken/Joruwat	Tabonibai/Teoraora - P -	Inisi/Misiluki - - -	Misiluki - - -	- Miti Ruki P ?
ABB	Bluggoe Ney Mannan (Blue Java) Saba (BBB?)	Awatwat/Pithothaw ? Gumoy	Inaiso ? Utin Ruk	- Jok McKenzie	- Te Umum/Kuburoburo -	- Kefu -	- Nefu -	- - -
ABBB	n.a.	-	-	-	-	Pata	Pata	Rokua Mairana/Tarua
Australimusa	Fe'i	-	Karat	-	-	-	-	-

n.a.; = non applicable

P = Present but local name not clarified

? = Signifies?

with well distributed rainfall throughout the year and annual totals exceeding 2,500 mm. The crop requires good management in terms of provision of organic matter in trenches prior to planting and subsequent mulching in order to remain productive for three to four years.

In the past 20 years, the influence of an invasion of black leaf streak disease (*Mycosphaerella fijiensis*) appears to have indirectly changed the spectrum of bananas cultivated on the atolls. In FSM - where there is a very extensive gene pool on the high islands of Yap, Chuuk, Pohnpei and Kosrae - susceptible cultivars have been replaced by highly resistant ones such as Saba (cooking) and Mysore (dessert). Only a few susceptible cultivars, such as Silk, have continued to be managed despite the reduction in bunch size. Saba is now spread across the Western Pacific to the Marshall Islands.

In the Tokelau and northern Cook Islands, Rokua Mairana (Kalapua-like) and Bluggoe have replaced other susceptible cooking types. Rokua Mairana was possibly taken from Papua New Guinea originally. Tuvalu and western Kiribati appear free of black leaf streak as yet and relative numbers of cultivars are small. Mysore has now been spread into all atoll countries except for the northern Cook Islands group.

Asia/Pacific

3rd INIBAP / ASPNET Regional Advisory Committee (RAC) Meeting

The meeting was held on 6-10 September 1993 at the South China Agricultural University (SCAU), Guangzhou, China. SCAU prepared a program which provided an opportunity for RAC members to interact with banana research workers from Guangdong, Guangxi, Fujian, Yunnan and Hainan provinces, students, farmers and extension officers. During the meeting, a national banana and plantain R & D network was inaugurated under the leadership of SCAU.

ASPNET RAC members present were:

Australia - Mr B. Cull, Regional Manager, Agricultural Production, QDPI,

China - Dr L. Lifeng, Director, Tropical and Subtropical Fruit Research Laboratory, SCAU,

India - Dr K.L. Chadha, Deputy Director General, ICAR,

Indonesia - Dr Subijanto, Research Coordinator, CRIH, AARD,

Malaysia - Ms S.H. Jamaluddin, Research Officer, Fruits Research Division, MARDI,

Philippines - Mr N. Roperos, Director, Bureau of Plant Industry,

Taiwan - Dr S.C. Hwang, Director, TBRI

Thailand - Mr Det Wattanachaiyingcharoen, Horticulturist, Horticultural Research Institute,

INIBAP - Dr R.V. Valmayor, Regional Coordinator and RAC Secretary.

The keynote lecture of the RAC meeting was given by Dr Liang Lifeng (SCAU) on Current Banana Research and Development in China. Dr Lifeng was elected Chairman of INIBAP/ASPNET RAC for 1993-94.

Dr Ramon Valmayor presented an update on the second year of operations. This included reports on the analysis of isolates of *Fusarium oxysporum* f.sp. *cubense* from southeast Asia by QDPI in Australia, the establishment of a duplicate collection of Asian and Pacific banana cultivars from INIBAP's Transit Center at TBRI in Taiwan for safety reasons and a banana disease survey in Malaysia by MARDI/INIBAP. The decision by the CGIAR to place INIBAP under IBPGR governance was also relayed to RAC members who expressed concern and recommended that INIBAP's mandate on banana and plantain improvement and interchange be safeguarded.

Dr David Jones gave a talk on IMTP Phase II proposals for the Asia/Pacific region.

The report from Indonesia announced a five year banana program that would include germplasm collecting missions in Java, Sumatra, Sulawesi, Kalimantan and the Moluccas, evaluation trials on disease resistance by the University of Jogjakarta and drought tolerance studies by the University of Malang. This infusion of funds into the banana research was the result of the stimulus given by the 1st INIBAP/ASPNET RAC meeting which was held in Indonesia in 1991.

The Thai Member announced that banana research in Thailand was to be increased substantially in the near future. Work proposed includes studies on cultivar improvement and germplasm conservation, cultural practices and technologies, disease and pest management and postharvest/processing



Photo : INIBAP/ASPNET RAC members and Chinese researchers