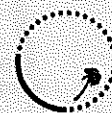


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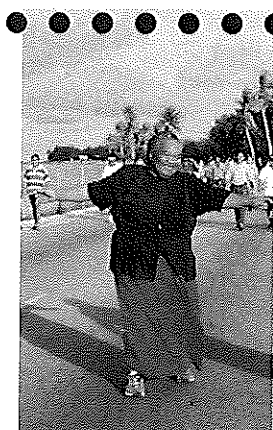
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P I N

PACIFIC ISLANDS NUTRITION

Editorial
SEPTEMBER

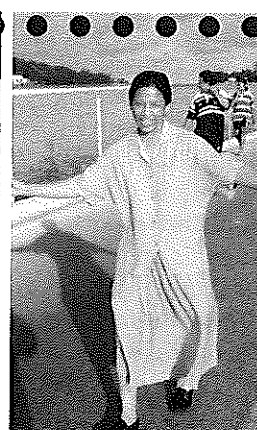
NAURU'S FIRST WALK FOR LIFE



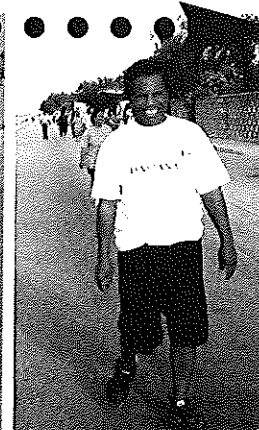
Healthy Islands
Coordinator
Ruby Dediya



President and
Minister of Health
Rene Harris



Paediatrician
Dr Moon Shrestha



Director of Public
Health services
Dr Godfrey Waldabu

Late in the afternoon of Friday 18 June, Nauru's first national 'walk for life' took place. The walk, around the perimeter of Nauru International Airport, was organised by the Health Promotion Council at the request of the President and Minister for Health, Rene Harris. This is an indication of how serious the President is about changing the health situation in Nauru.

The recently established Healthy Islands Council, co-ordinated by well-known Nauruan identity, Ruby Dediya, intends to change Nauru's health record and is working hard to develop programmes to control and reduce non-communicable diseases. Nauruans are not renowned for their walking; most prefer to drive around. The hot Nauruan days and dry climate do not

encourage outdoor activities amongst the general public.

Despite these difficulties, Ruby intends the Walk to become a regular feature of the Healthy Islands Council Health Awareness Programme. Other activities are also planned, especially in schools. Recent talks between the Nauru Director of Health and SPC may result in future collaborative and support programmes for the year 2000.

Nauru has some of the world's highest rates of non-communicable diseases, especially diabetes, hypertension and obesity. Nauruans represent one of the most obese populations in the Pacific with a mean BMI well above 30 kg/m², and a low life expectancy figure of 55 for males and 64 for females.



■ Fiji
Environmental
audit pilot
project



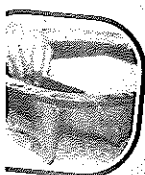
Karat,
the vitamin-A
rich banana of
Pohnpei



■ Tonga-SPC
collaboration



YAMS: a
guide to
varieties



■ a study of
effects of
Kava



Director-
General visits

■ SPC regional
nutritionists'
workshop Pacific
partners in nutrition
conference



How successful was the first 'walk for life'?

The President and Minister of Health led by example and turned up in the correct walking attire as did many senior government staff. It was

encouraging to know that over 200 people of all ages turned up. SPC's Nutrition Epidemiologist and Nutrition Information and Training Officer were there and took part in the walk.

CONGRATULATIONS AND
KEEP UP THE WALK!

KIRIBATI NATIONAL NUTRITION POLICY

Policy Thrusts

1. The Government will accord high priority to improve the country's food and nutrition situation and promote better health and nutritional well-being of the population especially the groups at risk.
2. The Government will provide the necessary political and economic backing required to deal with the food and nutrition issues facing the nation.
3. The Government further endorses the goals set out in this policy and plan document and urges governmental and non-governmental agencies to direct their effort and resources towards achieving these goals.
4. The Government also adopts and endorses the programmes and projects mentioned under this Plan of Action and directs concerned Ministries and other agencies to include them into their respective sectoral plans and programmes.
5. The Government will take necessary steps to formally establish the National Food and Nutrition Committee and empower it to advise, co-ordinate and evaluate the implementation of the food and nutrition policy and plan.

Goal

For the population of Kiribati to attain good nutritional status in order to contribute to the country's socio-economic development and improve their quality of life.

OBJECTIVES

By the end of the Plan period:

1. Reduce the incidence of undernutrition among children by 50%;
2. Virtually eliminate clinical vitamin-A deficiency;
3. Reduce the incidence of iron-deficiency anaemia among pregnant women and children;
4. Decrease the prevalence of obesity and the incidence of NCD among adults;
5. Increase self-sufficiency in food and improve household food security; and
6. Improve environmental sanitation and increase access to safe water supply.

STRATEGIES

1. Promote a multisectoral coordinated approach in dealing with nutrition issues;
2. Decrease dependency on imported food and improve self-sufficiency with respect to staple and traditional food;
3. Improve household food security and ensure adequate supply of leafy greens;
4. Ensure proper nutrition in infants, preschool and school children;
5. Prevent and reduce micronutrient deficiencies particularly in vitamin A and iron among mothers and children;
6. Prevent the increase in diet-related non-communicable diseases; and
7. Promote a healthy blend of traditional and modern practices.

Reproduced from the National Nutrition Policy and Plan of Action, Kiribati, 1999.

ENVIRONMENTAL AUDIT PILOT PROJECT: FIJI

At last September's SPC-sponsored Nutritionists' Workshop, it was recommended that a new and different approach is needed to address the serious problem of obesity in the South Pacific. The modest impact that education, behavioural and pharmacological approaches have made in the past makes this an important priority.

Environmental audits, ANGELO, (ANalysis Grid for Environments Linked to Obesity) is a system-based, environmental intervention. It involves members of the community identifying and prioritising settings which promote obesity. This allows for better targeted intervention activities in the community. Part of the strategy involves members of the community initiating their own activities to reduce obesity.

Two countries, Fiji and Palau, were selected to trial the approach because of their well established and strong National Nutrition Centres which have the necessary institutional support systems in place.

The Fiji Nutrition Centre is running well ahead with piloting the Obesity Environmental Audit. The Centre has formed a special Obesity Environmental Audit Committee with a multi-sectoral membership, chaired by the Director of Primary and Preventive Health Services, Dr A. Boladuadua.

Several meetings have been convened by the Centre since the beginning of this year. Makoi community was identified as the first site and a Project officer was appointed. A two-day workshop was conducted from May 11-12 with representatives of the community and public health officers that serve the area. Among other things, workshop participants were able to identify a set of environ-



Participants and guests at opening

mental influences relevant for Makoi that need to be modified as part of an intervention strategy to prevent obesity.

Three of the environmental influences identified for projects by the participants were:

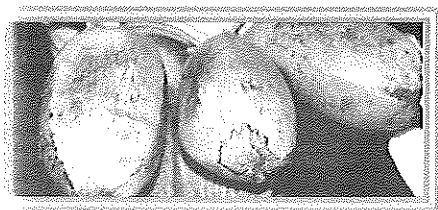
- i) foods fried in oil and cheap fatty meats;
- ii) food gardens; and
- iii) processed food.

Participants were also able to develop an action plan for each priority area. The plan typically identified what needs to be done, the target group, and how the plan would be put into practice.

We eagerly await the outcome of this pilot project!



Dr Boladuadua, after opening workshop



KARAT, THE VITAMIN-A RICH BANANA OF Pohnpei, FSM

Common varieties of bananas have lower amounts of provitamin A, but the *karat* of Pohnpei is a special banana. It was well-known in Pohnpei in the past as the traditional weaning food for infants. One researcher documented that "the one consistent positive food belief (in Pohnpei) is that *papaya* and *karat* bananas...are foods for infants". (Demory 1976).

Discussions on revival of the *karat* were initiated in 1998 by Dr Eliaser Johnson, Pohnpei Health Department's Vitamin-A Campaign Coordinator.

The *karat* banana, *Musa troglodytarum*, is roundish in shape and has a reddish-colored skin when ripe. Unfortunately, the *karat* banana has become rare on the island of Pohnpei due to neglect. It is a little more difficult to grow than other varieties, requiring a fertile soil. The plant also seems sensitive to drought and strong sunlight. Because it is not exported, the variety was neglected while more attention was given to other banana varieties with potential export value.

Karat has High Provitamin-A Values

In December 1998, ripe *karat* samples were analyzed at the Cancer Research Center, Hawaii. The results confirmed that *karat* is definitely rich in Vitamin A in the form of provitamin A carotinoids. The analysis results showed *karat* to contain 111 Retinol Equivalents (RE) for 100 gram. Another sample of *karat* was sent to Covance Laboratories, Madison, Wisconsin, USA. The result of the analysis of the sample



Karat banana

The average recommended daily vitamin-A intakes are as follows:

Children, 1-6 years	400 RE
Adult Men	500 RE
Adult Women	600 RE
Pregnancy	600 RE

The values given above give some ideas of the amount to be eaten daily to provide the body's need for vitamin A.

Health Implications

Vitamin-A Deficiency (VAD) was identified in Pohnpei in 1994 in the Pohnpei Child Health Survey. That population-based, random survey, covering all six municipalities of Pohnpei Island and the five outer islands of the state, examined 361 children 24-47 months of age. Severe VAD (serum Vitamin A concentrations of 0-9 ug/dl) were found in 7% of the children, and moderate VAD (10-19 ug/dl) 44%, giving a total of 51% with severe/moderate VAD (Auerbach 1994).

The 1987/88 National Nutrition Survey of FSM did not assess for VAD, but noted that there could be deficiencies in the diet, due to extremely low consumption of fruits and vegetables.

VAD is known for causing problems with the eyes/vision, including night blindness, total blindness, and increased mortality due to infection. A biannual Vitamin-A capsule distribution program was started in Pohnpei September 1998 (Hawley 1998), to address the VAD problem.

was 160 RE/100 gram. Another Pohnpeian banana, the *mangat*, was also found to contain a relatively high provitamin-A value, 96 RE/100 gram. A comparison of provitamin-A values of the three types, *karat*, *mangat*, and the common banana are shown below. Provitamin values of three other types of fruit, ripe *papaya*, ripe mango, and pandanus fruit are given to show the relative value as food sources.

	RE/100 gm (about 1/2 cup)
Karat banana	111; 160
Mangat banana	96
Common bananas	8
Ripe papaya	118-150
Ripe mango	267-400
Pandanus fruit	119

Interventions for Promotion

The UNICEF-assisted Family Food Production and Nutrition (FFPN) project, based at the Pohnpei Department of Health, and the Department of Education, initiated a Vitamin-A-rich foods promotion competition in the schools early this year. *Karat/papaya* growing, poster drawing, and essay-writing are the different activity categories, which target school children in Classes 5, 6, and 8. Ms Satomi Akaida and Ms Yuko Yawabara, of the Japanese Voluntary Services/FFPN, and Mr Perden Samson, Department of Education, have been carrying out this project, in conjunction with Ms Lois Englberger, UNICEF/FSM Health. A Vitamin-A Awareness Survey is an important part of the activity, and to this date, over 500 students have been surveyed about their knowledge of Vitamin A and practices in growing and eating Vitamin A rich foods.

Karat growing forms the major focus of intervention. Obtaining planting material has not been easy, as the *karat* has become quite rare. Suckers are purchased from families who still

have the plant and are willing to share, at \$1 per sucker. These suckers are then distributed and records kept of those receiving them for evaluation purposes. Schools are very interested in the activity and have started planting. Plans have been made for awarding schools and students at the end of the year for participation and special achievements. The outer islands are also being visited and are involved.

Similar varieties of the *karat* banana also grow in other parts of FSM, and a similar promotion project has been planned for Chuuk starting August 1999, to be coordinated by Ms Snowdon, UNICEF Health and Nutrition Advisor.

Funding support has been provided both by the Secretariat of the Pacific Community (SPC) and by Task Force Sight and Life, based in Basel, Switzerland.

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Submitted by Lois Englberger, UNICEF Health and Nutrition Advisor, and Jane Elymore, FSM National Program Manager for Food and Nutrition, June 1999.

SAMOA

NATIONAL NUTRITION SURVEY

The National Nutrition Survey started in March 1999. The survey aims to find out:

1. The percentage of people in Samoa with anaemia (*loto vaivai*).
2. The percentage of preschool children who are malnourished and the reasons for the malnutrition.

Data collection for the survey should be finished by June and the

final report completed by the end of the year.

The Nutrition Survey is part of a combined Health Department Survey which is also investigating filariasis and providing health checks for people in the participating villages.

DIETARY GUIDELINES FOR SAMOA

- Eat fresh locally grown food
- Eat fresh fruit and vegetables
- Eat a variety of food everyday
- Eat sugar and sweet foods in moderation

- Drink fresh, clean water
- Eat fat and fatty foods in moderation
- Eat salt and salty food in moderation
- Keep a healthy body weight
- Feed babies with breastmilk
- Don't smoke; drink alcohol in moderation.

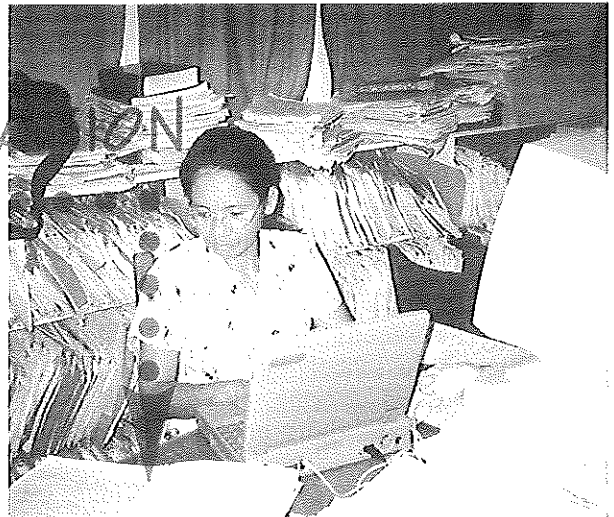
Reprinted from the Jan-Mar'99 Issue of Taumafa Tatau, Samoa's Nutrition Newsletter.

TONGA - SPC COLLABORATION

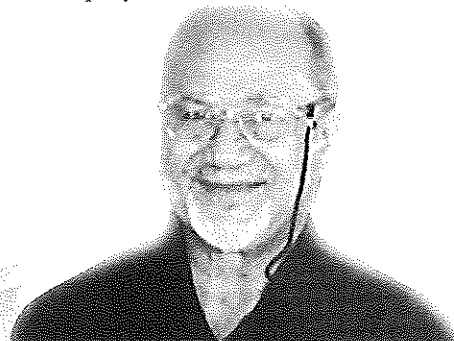
The Tonga National Food and Nutrition Committee (NFNC) is collaborating with SPC in two projects. The projects were recommended by the Tonga National Plan of Action in Nutrition. They are:

1. A food and nutrition monitoring system.

This includes monitoring information on infants and children, and providing information on the rates of breastfeeding and infant feeding. The latter is intended to provide data for Tonga's plan to make Vaiola a Baby-friendly Hospital as part of the Maternal and Child Health (MCH) project.



Entering antenatal data at Vaiola Hospital

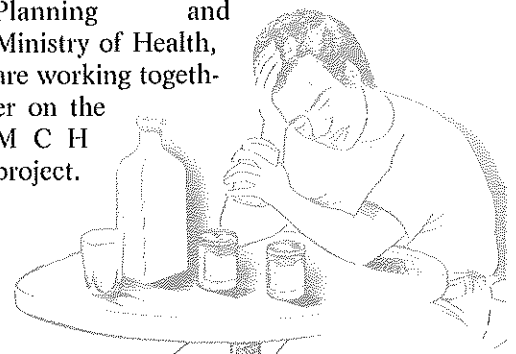


Director of Health, Dr Malalo

2. A study on tobacco and alcohol use.

This project aims to gather information on tobacco and alcohol use to support proposals by the Ministry of Health for legislation relating to those substances.

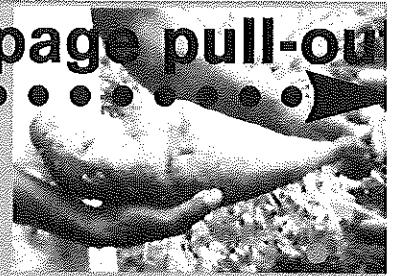
The Tonga NFNC is coordinating the projects, with SPC providing technical assistance. The Ministry of Health (Health Promotion) and the Ministry of Education are collaborating on the alcohol and tobacco surveys of secondary schoolchildren, while the Department of Central Planning and Ministry of Health, are working together on the MCH project.



Vaiola Hospital Records section



Central Planning Department Nutritionists, Lakataha Mario and Sulleiti Ofa'iliu



YAMS: A GUIDE TO 12 VARIETIES

Each month, *Tour de côte* focusses on a variety of yam selected from those best-known for their taste and culinary qualities. *Tour de côte* is a monthly magazine produced in Noumea by Pacifique Presse Communication. The magazine covers a wide range of subjects from culture, health, tourism, agriculture and others.

HI BOTH A SYMBOL OF A FOOD

Yam-growing plays an important part in the Kanak community. Everyone is eager to grow a plot of yams so as to be able to participate in the first yam and yam-sharing rituals. The harvesting of the first yams of the season is marked by a ceremony of offerings to the high chief, carried out in accordance with an invariable protocol which restates the role of each clan within the chiefly system. This is also an occasion for everyone to share and taste the first yams of the season which are often high-quality varieties. The yam is the basis of such events. They play an important role in marking the seasons, in fostering social cohesion, and as a food.

Yams are grown and marketed in the Territory of New Caledonia, mainly by East Coast farmers, who are working hard to develop commercial production of high-quality yams. The *Touaourou* is the first in a series of 12 varieties of yam to be documented in this publication.

THE TOUAOUROU

Camille Streiff is a loyal fan of the *Touaourou*. His farm is in Gondou at the bottom of the Houailou side of *Col des roussettes* (a pass on one of the cross-island roads). He is one of the

pioneers of commercial yam farming. He started at subsistence production level some 20 years ago but his output has gradually increased to 20,000 yams annually.

The *Touaourou* has always been one of his favourite varieties and has accounted for up to 5,000 plants. He explains his choice by the very profitable market for this yam—an excellent quality product always sought-after by connoisseurs, both for eating and for the seed market.

On his farm, he only plants small *Touaourou* seedlings, which are then trained onto poles. In this way, he obtains good-sized marketable tubers weighing from 1 to 1.5 kg, with each plant yielding 3 to 4 tubers amounting to a total weight of 4 to 5 kg.

As this variety is susceptible to moisture, he prefers to plant it on a slope to give the ridges good drainage.

Today, although he has turned most of his production over to more imposing varieties, mainly used for customary ceremonies, he has, nevertheless, kept some *Touaourou* plots to satisfy a market which has remained profitable, despite growing competition from East Coast producers.

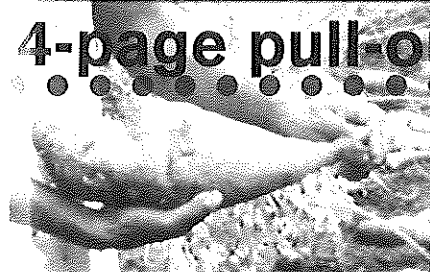
This yam's name, *touaourou*, is deceptive. Some may believe that the variety originated in Yaté, where there is a tribe of the same name. However, it is practically unknown in that part of New Caledonia. *Touaourou* is thought to have been introduced to the region from Mare. The variety was adopted by the Paici-Cemuhi and Yuaga areas, where it is found under the name of *boatji* in both Hienghene and Baco. In Mare, it is known as *erek*, and is still grown by practically all private farmers.

This yam is one of the valuable varieties, as it is well-liked, both for use in ceremonial exchanges and for its taste.

These advantages have not escaped the attention of producers on the East Coast, where one grower in two sells this yam on a regular basis.

LEARNING HOW TO RECOGNISE IT

In the field, the shoots are characteristic, with the young plant having wide brownish leaves on green stems with purple wings. On the adult plant, the leaves are shiny and have wavy edges. The wings of the stem are crinkled. At harvest, the tuber comes in different shapes and sizes



YAMS a guide to 12 varieties

depending on the variety, e.g. either cylindrical and long, 70cm to 1m, or shorter and thicker with a maximum length of 40 cm.

THE TOUAOUROU A PRODUCTIVE YAM FOR THOSE WHO KNOW HOW TO CARE FOR IT PROPERLY

The same variety of *Touaourou* can produce two impressive forms of tubers: very long or short and thick. With its eight-month growing cycle, the *Touaourou* is classified among the semi-early maturing varieties. If it is planted at the beginning of September, it will be ready for harvesting in May. It provides a good

marketing opportunity, since it is among the most sought-after varieties available on the market at that time of year.

Unfortunately, as with practically all other high-quality yam varieties, the *Touaourou* is very susceptible to anthracnose. To protect crops against this disease, the vines must be given a vigorous start by using good-sized seedlings weighing at least 200 g. Also, once the rainy season begins, the vines must be carefully monitored and treated at the first sign of the black spots characteristic of this disease.

Moreover, this variety must be staked

out on high poles. Using shorter poles or no poles at all can have an extremely negative effect on yields.

At harvest, if the crop has been properly managed, each plant can provide two to three very handsome tubers. They are unusual in that they are very well separated, i.e. they are not joined at the head like other varieties.

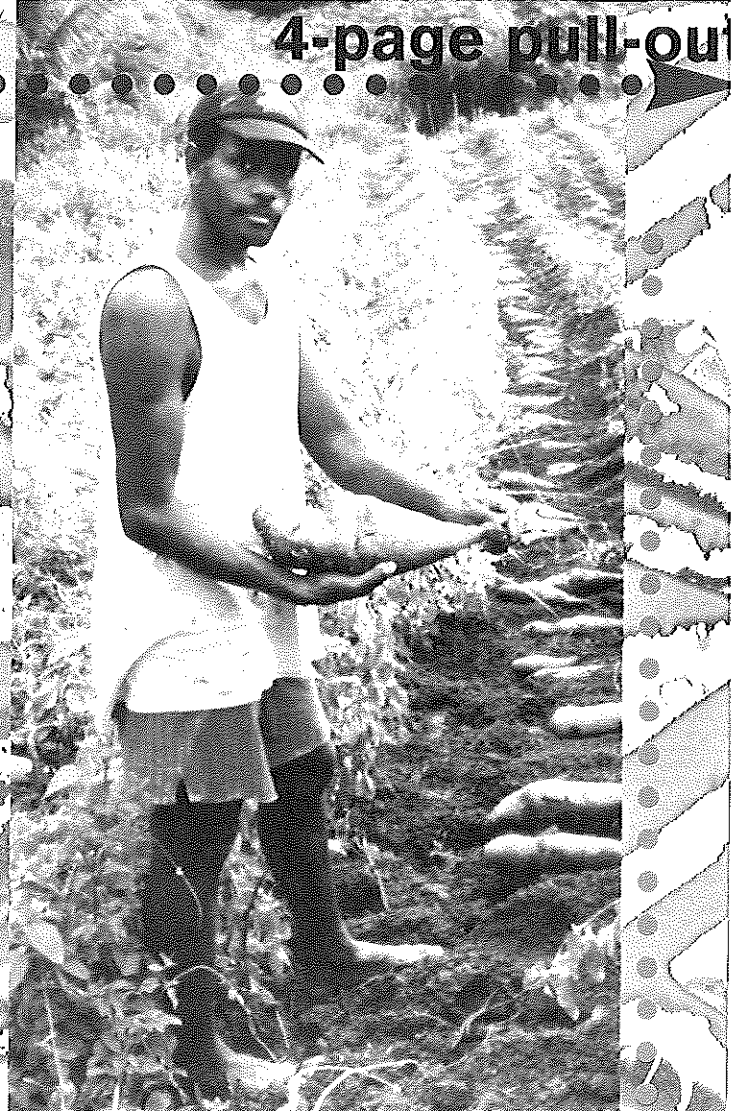
During planting, care must also be taken not to mix the two known types of *Touaourou*, i.e. the long and short varieties, in the same ridge. This is to simplify the harvest and make sure that the tubers are not damaged when they are dug up.

A pioneer of the commercial production of subsistence crops, Camille Streiff has always reserved a significant proportion of his land for the Touaourou variety.



YAMS

a guide to 12 varieties



They are, in fact, quite fragile and mechanised harvesting is strongly discouraged. Every effort should be made to carry out a careful, manual harvest, particularly for the longer variety, by digging widely and deeply to avoid damage. The *Touaourou* is known for its productivity and excellent taste.

CAMILLE STREIFF

CARVES OUT

A NEW NICHE:

BIG YAMS FOR CUSTOM- ARY EXCHANGES

Camille Streiff is an inventive and a skilled handyman who has set himself up in a special new market sector: production of yams for customary exchanges. He raises large-sized tubers from soil he has prepared using his own specially-made implements.

Total mechanisation

Yam-growing had no secrets for Camille, who had always grown yams on his land for his own personal use. About 10 years ago, he decided to

begin commercial production. This took place gradually and depended a lot on the time he had available. "I always preferred working by myself," explained Camille Streiff. "When you don't have any farm hands and you can't spend your entire day on the crops, you have to be resourceful and find solutions. These solutions obviously came from mechanising operations as much as possible."

That is why he began to collect tractors — new ones and old ones, which he rebuilt entirely by himself, often with home-made parts. He currently has seven functioning tractors and several others spread about his workshop, either waiting to be overhauled or being dismantled for parts. "When you don't have a lot of time, tractors are more practical. Each one is equipped with a different tool. That way you don't have to change them!"

"Made-in-Gondou" tools

But the real secret is not in the number of tractors. It is in the strange tools which are attached to the back of them. "When you want to mech-

anise yam farming, you can't find the right tools in a store. But mechanics and welding are my trade. So, for each operation, I tried to create just the right tool," confided Camille, who is rather proud of his inventions.

For example, the plough with two inverted disks which, in a single pass, makes small, perfectly-formed ridges; or the rotating disk, the result of a combination between a rotary cultivator and a bucket wheel, designed to raise ridges of almost a metre in height without any difficulty.

And, for harvest-time, the backhoe, of course.

The rather ingenious equipment he developed has helped him to increase his yearly production to as many as 20,000 plants from 20 different varieties per season.

Custom yams

As well as being a well-informed and efficient farmer, Camille Streiff also has a nose for business. For this reason, over the past two years,



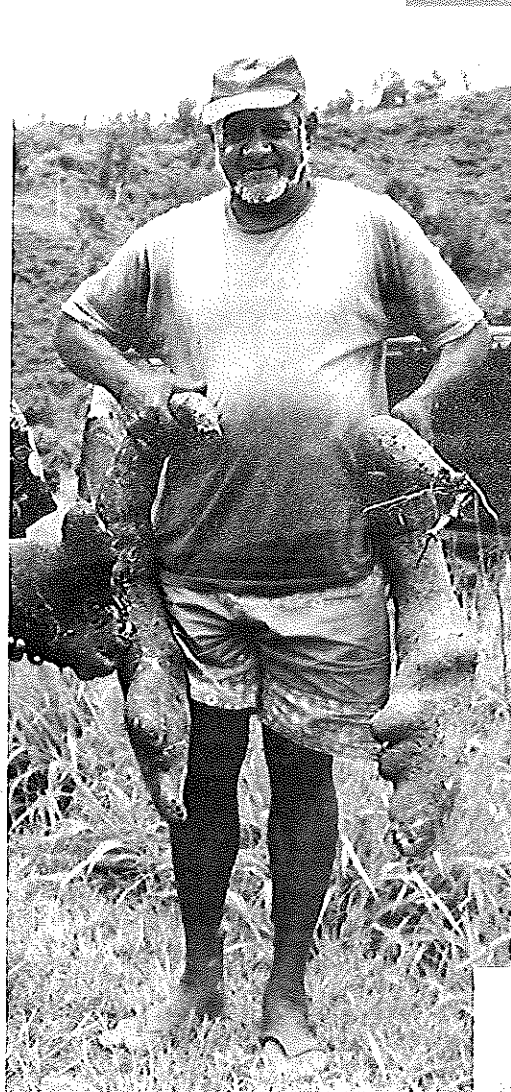
he has significantly reduced his commercial production for normal sales. He felt that, while they had been very profitable for a number of years, the crops have become less so today. This is due to a significant increase in supply on the marketplace from several large-scale producers on the East Coast. Also, the soil on the plots of his property which are best suited to intensive farming had begun to be impoverished. He decided to re-orient exploitation towards another sector, more unusual than this first one and also very profitable, as there is practically no competition. It still involves yams, but a very special type of yam, i.e. those intended for customary offerings, whose most appreciated quality is their unusually large size.

"Not everyone has the time, space or technical capacities needed to grow this kind of produce," explained Camille Streiff, "so I thought I would begin working in this market, which, in a very short time, has proven to be quite profitable. Today, people come from all over because they know that with me they will find yams fit for making a handsome offering."

This time the goal is no longer to limit the growth of the tubers in order to obtain marketable produce of 1 to 1.5 kg, but rather to grow the largest and fattest tubers possible. This crop is sought after for customary offerings, because arriving with a handsome one-metre-long yam always makes a good impression at marriages, birth and mourning ceremonies. This demonstrates respect and maintains status.

Resourcefulness in action

In terms of both varieties and planting methods, growing large-sized yams requires a very particular kind of work, especially to grow tubers



with just the right shape.

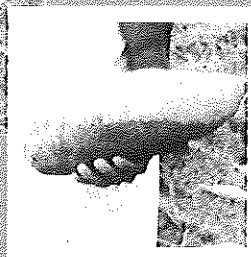
In Gondou, Camille Streiff has once again shown a great deal of ingenuity, by designing and fabricating tools adapted to a completely mechanised approach to this crop. He began with the most important phase, i.e. deep tilling.

"In order to grow tubers almost a metre and a half in length, you have to till very deeply – ploughing once is not enough. So I found a solution – the auger" – a large cork-screw which makes perfectly round holes up to 1.4 m in depth. But an auger which he redesigned and improved, as usual with the aim of saving time. Controlled by a system of cables from the tractor's steering wheel, the auger can be placed in any position,

YAMS a guide to 12 varieties

making it possible in a single pass to drill holes in honeycomb design at extremely regular distances. The soil taken out of each hole can then be easily tilled, loosened and cleared of stones before being put back. The holes, which are marked by stakes so he knows exactly where to plant, are then covered by an enormous ridge. "For big yams, you mustn't hesitate to raise ridges more than 70 cm high if you want them to grow big and straight. As the ridges also need to be very wide, this involves handling tonnes of dirt and that would be impossible to do on a large scale if I had not found a 'shortcut'," admitted Camille. His "shortcut" is another tool he made himself, an inclined disk with blades, towed along by the tractor, and which, as it turns, piles the already tilled soil into a ridge. Simple, but someone had to think of it.

Yams weighing over 20 kg

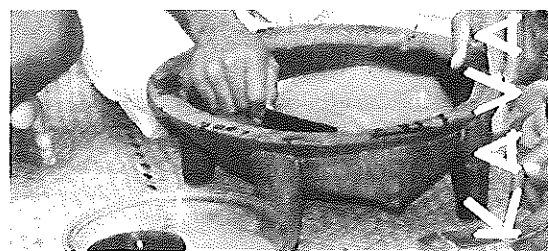


In Gondé, Camille has planted about 1500 custom yam plants from the *Poya*, *Bouilana*, *Kohori* and *chicken* (so-called because its flat base grows to take on the form of a

crest) yam varieties this year. Planted during the waning moon in September and October, they will be ready for harvest next August or September – A mechanised harvest, as might well be expected.

As with his last crop, he hopes to get tubers 70 cm to almost 1.5 m in length with weights of 5 kg to more than 20 kg; high-quality produce which will easily sell for 500 francs a kilo. "A good price for everyone," said Camille, who earns enough from his work to live properly while at the same offering a highly valued service to a constantly growing clientele.

SOCIAL AND BEHAVIOURAL ISSUES RELATED TO KAVA CONSUMPTION.



A study of kava drinking in Fiji

Background

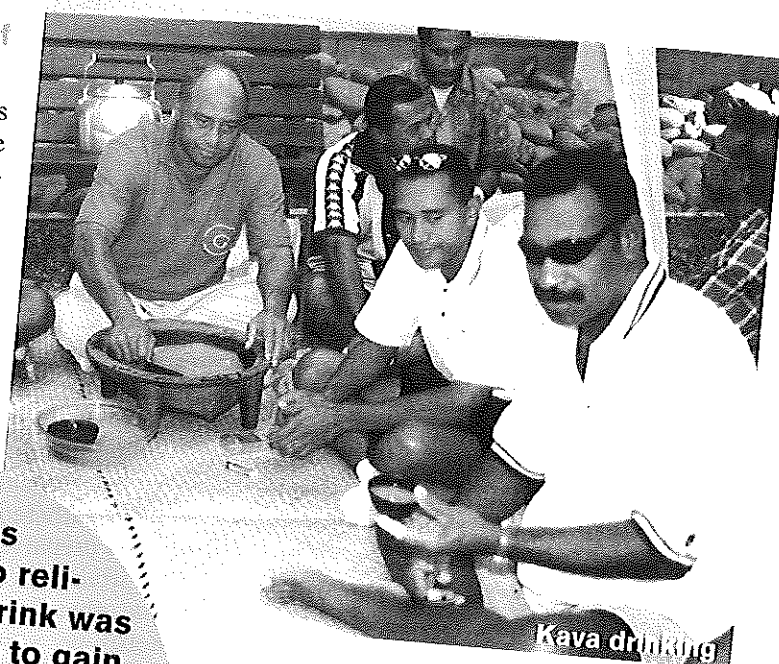
An array of plants has been used as drugs by different cultures in the course of history. Some examples are the James-town weed (*Amanita muscaria*), opium poppy (*Papaver somniferum*) which are used by the native Americans and the Siberian tribes of Russia. Another is the Indian hemp (*Cannabis sativa*) that is used by the East Indians and African communities. In the Pacific, the two well-known drugs are kava (*Piper methysticum*) and betelnut, the fruit of a palm (*Areca catechu*). Both plants appear to have originated from South East Asia.

These psychoactive drugs are known to modify mental performance and behaviour. They have played a central role in religious rituals which rely on revelation and inspirations for 'new' religious knowledge and experiences. Trends show that these drugs are abused once they are used outside their religious contexts. The changing patterns of kava drinking in Fiji seem to confirm the trend.

The beverage generally known as kava, is made from the plant *Piper methysticum*. Both the traditional drink and plant are known by various names such as *ava* in Samoa, *ava* in Hawaii and *yagona* in Fiji. Other related names are *kavakava*, *kawa* and *sakau* which all refer to a characteristic bitter taste of the beverage.

Early users of kava

Early observers generally agree that kava drinking was closely linked to religious rituals in many parts of the Pacific and that its use was



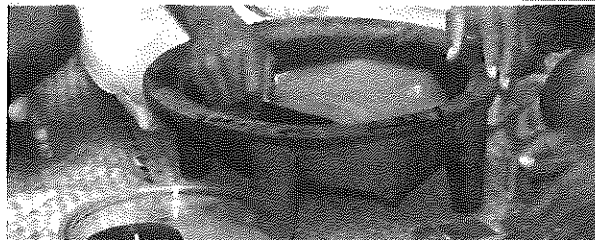
Kava drinking was closely linked to religious rituals. The drink was offered to the gods to gain their favour and when drunk, the consumer had access to the supernatural realm. Such a role placed a high degree of sacredness and respect on the value of the drink and the kava tradition as a whole.

restricted within the boundaries defined by society. The drink was offered to the gods to gain their favour and when drunk, the consumer had access to the supernatural realm. Such a role placed a high degree of sacredness and respect on the value of the drink and the kava tradition as a whole. Early kava traditions recorded in 1750 showed that kava drinking in Fiji was restricted to chiefs, priests (*bete*) and sometimes the initiated members of a *yavusa*, and were reported to occur in the early hours of the

morning.

Records of Pacific women drinking kava in the past are rare. While it was customary for Polynesian women to prepare and serve the drink, women of Fiji, Tonga and Samoa did not drink kava except on medical grounds. In pregnancy, kava was believed to facilitate delivery and aid production of milk during breastfeeding.

It was also used to treat ailments such as stomach conditions, sores and headaches. Females drank masticated kava to treat puberty syndromes and menstrual problems. In almost all Pacific societies, children were excluded from kava sessions, except in the preliminary stages when they were required to chew the roots before mixing the drink.



Issues related to kava drinking

The results of a survey conducted in a Fijian village, Muaivuso, in 1997 to assess the effects of kava drinking on nutritional status are summarised below:

Social

- ▶ The traditional drink is now a popular social drink. In the Muaivuso Survey, about 68% of drinkers drank to socialise.
- ▶ The drinking pattern showed male gender preference. A higher proportion of males are heavy drinkers (86%).
- ▶ Women's participation in kava drinking (40%) in the community showed greater liberty in women's access to what was traditionally a drink for males only
- ▶ More kava drinkers were of lower educational level. Half of the adult population received education up to primary school only, compared to 42.2% with secondary education and 7.8% with tertiary level.
- ▶ The high number of drinkers with only primary school education level could indicate that less educated adults drink kava as a means of relaxing and escaping the frustrations of life. This result is consistent with findings from a bio-cultural study, which found an association between educational achievement, stress and obesity.

Health

- ▶ The majority of drinkers were aged 40 years and over, and were obese and overweight. In Fiji, weight gain above 40 years is associated with the onset of non-communicable diseases (NCDs) such as diabetes, hypertension and cardiovascular diseases.
- ▶ Although the rates of obesity were high for both male and female drinkers, women were found to be more obese than men. The differences were much greater amongst kava drinkers than non-drinkers.

- ▶ The high proportion of male heavy drinkers (86%), suggests that men's responsibilities may suffer. Observation of the frequency of daily tasks males attended to and the size of gardens indicated that the males' degree of commitment to their traditional roles was less intensive. This could affect the quality and quantity of foods available to family members.
- ▶ Women's participation in kava drinking also suggests that their time and energy are being channelled away from their critical role in family food production, preparations and breast-feeding. This is also expected to affect family food consumption and nutritional status.
- ▶ Cash availability was reflected in the dietary items, which incorporated processed starchy foods, tinned fish and imported mutton chops to replace the root crops and seafoods that were previously gathered by the women.
- ▶ Food preparation style has shifted from cooking in open fires to one that is supplemented by kerosene stove, reducing the women's tasks of gathering firewood. These changes are reinforced by kava drinking which further reduces the time and energy available for laborious food preparations.
- ▶ Male kava drinkers, since they traditionally expend more energy on physical labour, still receive the largest portion of the meal, while women and children retain their place of secondary importance in food distribution. This may explain the disparity observed in the weights of drinkers in this survey.

Economic Issues

- ▶ Kava drinking is regulated by the income level of individuals. The most frequent drinkers were those in the higher economic bracket. The food budget may dwindle as money spent on kava is money not spent on food.
- ▶ Respondents estimated that a

heavy drinker would spend more than \$20 on kava a week. If there are two drinkers in a household, the kava budget could be as much as \$50. Assuming a weekly food budget of \$10–\$50, such a drinking pattern is likely to affect the quality and quantity of the family food supply.

- ▶ With the increasing dominance of cash economy in the community, there is growing pressure on the subsistence food production to exchange produce for cash in order to meet basic needs such as school fees, clothing, food items and transport.
- ▶ As family needs change to accommodate kava drinking, heavier demands for cash may push the local protein source (fish) to be sold in the market and be replaced by cheaper proteins such as mutton flaps and tinned corned beef. These foods are high in fat. Other starchy processed foods such as noodles, bread and rice are usually bought to replace the root crops. Traditional foods are further lost as food gardens are neglected due to the adverse physical and psychological conditions of the drinker. These changes indicate that kava drinking is likely to be detrimental to nutrition and health and society as a whole. The findings have provided patterns that suggest directions for intervention that may bring about positive results.

References have been omitted from this article for the sake of brevity.

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SPC'S DIRECTOR-GENERAL VISITS TOKELAU

Getting to Tokelau involves travelling there by boat from Samoa. This adventure was recently undertaken by a team from SPC, headed by the Director-General, Dr Bob Dun, at the invitation of the Tokelau Government. The Health Promotion Specialist, Josephine Gagliardi, was a member of the team.

Tokelau consists of three small atolls: Nukunonu, Atafu, and Fakaofu, with a total land area of 12 square miles. It is 480km north of Samoa. The 1991 census counted a total of 1507 people.

The SPC team visited each of the three islands and met and held discussions with the Council of Elders, women's groups, health workers and youth groups on each atoll.

The Health Educator Nutritionist, Fenuafala Faafu, accompanied the SPC Health Promotion Specialist to all atolls. Fenua is fully committed to the principles of public health and health promotion and has recently headed a successful Healthy Island Clean-Up campaign. She has also just completed a comprehensive survey on hypertension and diabetes. The results should help the Ministry of Health design intervention strategies to combat the increasing incidences of high blood pressure, stroke and diabetes.

*Josephine Gagliardi
Health Promotion Specialist
SPC, Noumea*



*Faipale of Nukunonu and
SPC Director-General, Bob Dun*

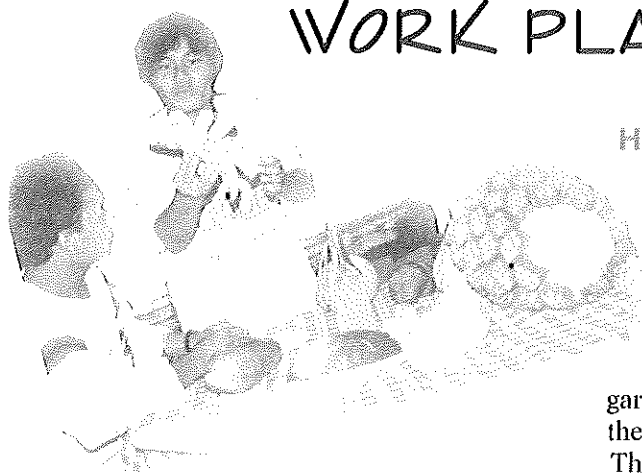


*SPC's Health Promotion Specialist,
Josephine Gagliardi (left) and a member
of the women's group in Nukunonu*



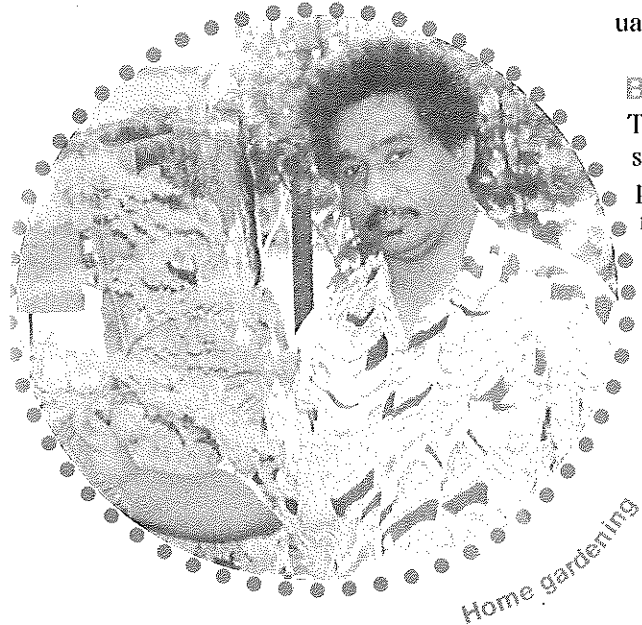
Women's group, Atafu

MARSHALL ISLAND WORK PLAN 1999



Home gardening project

This pilot project focusses on Community Health Councils (CHC) and households of high-risk children on Majuro. The aim of the project is to reduce malnutrition (over and under) by increasing availability of locally grown food crops in 265 households. Funds have been obtained from UNICEF for the purchase of basic garden tools. These were purchased and distributed at the beginning of the year. CHC will monitor the project. The Nutrition Unit has planned follow-up visits, and evaluation every three months for one year.



Home gardening

Breastfeeding training

This has continued from last year. Several training sessions for staff are planned. Two other seminars have been planned, one for females attending the bi-annual youth rally in June and the other for parliament, local government and NGO leaders.

Vitamin A

This is an ongoing activity. Training of Community Health Council members is continuing this year.

Education materials

The Nutrition Section is currently developing a number of health and nutrition posters with funding assistance from SPC Small Grant Scheme. The section has also had a number of other posters translated into Marshallese. These include the Weight Chart, Dehydration Drinks and other breastfeeding and diabetes materials.



Encourage eating local fruit

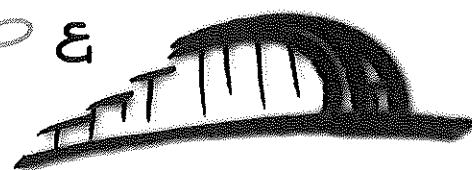
The availability of these materials in Marshallese should be of great help to the Nutritionists and the community. A baby-food cook book has also been planned.

Nutrition Plan of Action

Plans to further develop the Islands' National Policies for Agriculture, Food and Nutrition into action plans are underway.

Information provided by
Julia Alfred,
Nutritionist.

SPC REGIONAL NUTRITIONISTS' WORKSHOP & PACIFIC PARTNERS IN NUTRITION CONFERENCE



BACKGROUND

A three-day training workshop will be held to inform and assist nutritionists in Pacific Island countries and territories on regional nutrition and non-communicable disease issues. Following the workshop will be a major international conference jointly organised by the New Zealand Dietetics Association (NZDA), the Dietitians Association of Australia (DAA), the Pacific Islands Nutrition & Dietetic Association (PINDA), Nutrition Society of Australia, the Australasian Clinical Nutrition Society and the Nutrition Society of New Zealand. This will be one of the largest nutrition conferences ever held in the Pacific region.

SPC is supporting country representatives to attend both the SPC Workshop and the Conference. Country representatives are encouraged to present an oral presentation, paper or poster at the Conference.

VENUE AND DATES

The workshop will be held from Saturday 18 – Monday 20 September 1999 at the Kiwi International Hotel, Auckland, New Zealand. The Pacific Partners in Nutrition Conference will be held at the Aotea Centre from Tuesday, 21–24 September 1999.

WORKSHOP OBJECTIVES

The workshop aims to:

Report results of the SPC NCD Project to regional nutritionists;

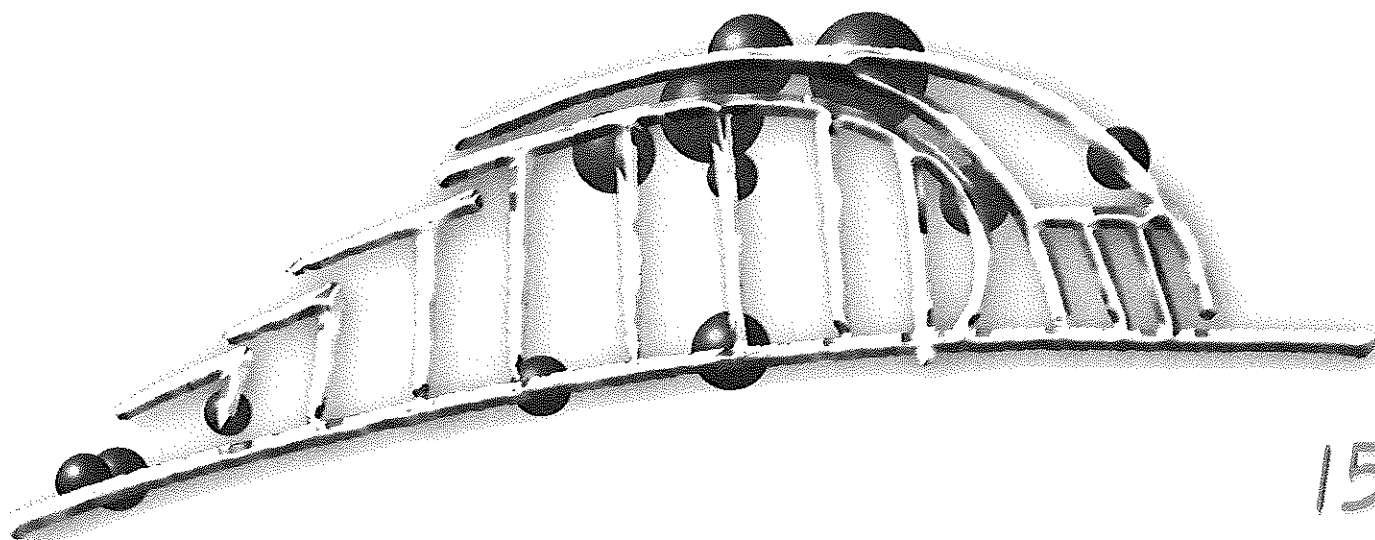
Report progress on the environmental audit of obesity initiatives recommended at the 1998 nutritionist's workshop held in Noumea.

Discuss and explore possible follow-up and interventions for future actions in the Pacific; and

Prepare presentations for the Pacific Partners in Nutrition Conference.

WORKSHOP METHODOLOGY

The workshop will combine presentations, discussions and case-study/group presentations by Pacific Island practitioners, representatives from regional organisations and international consultants. The workshop will be participatory in nature and will require participants to prepare written information about their country situation and to have input into proposed future SPC regional activities.



HEART DISEASE:

Going nuts to prevent it

Findings from following the health of 86,000 women suggest that regular nut intake can reduce the chances of a heart attack by 35%.

Nuts are thought to be quite good for you. They contain vitamin E, fibre and all sorts of other goodies and could be part of the benefit derived from some versions of the Mediterranean diet. For example, some nuts contain monounsaturated fats and may reduce the bad form of cholesterol - LDL. The Nurses' Health Study is something we return to often because it has become a rich source of information. It's been going since 1976 and originally monitored a population of over 121,000 nurses. One advantage of the study is that the researchers measured many factors including diet so that they could be compared to the diseases the women later came down with.

Lifestyle or nuts?

Women who ate about 30 grams of nuts at least five times per week were not the same as the average women in the study. They were generally living a healthier lifestyle, smoking less, exercising more, more likely to drink alcohol and were thinner. They also ate less meat and had a better profile of fat intake. Clearly the healthier lifestyle reduced the chances of a heart attack but even so, taking all those and other factors into account, women eating more than 150grams (5oz) of nuts per week had a 35% lower risk of a fatal or non-fatal heart attack. There was a dose effect up to the five times per week with middling intake offering middling protection.

Which nuts?

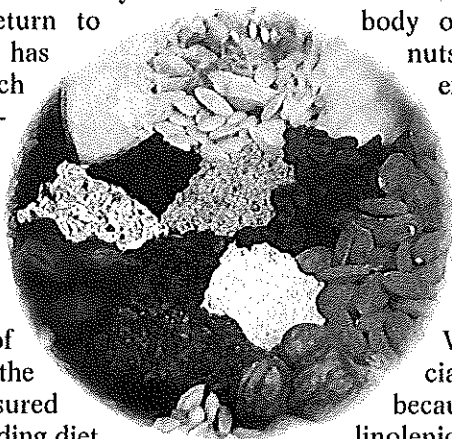
There wasn't enough information to analyse the data by type of nut. Despite the fact that whole peanuts seemed to work, peanut butter was only slightly protective, perhaps because American peanut butter sometimes has saturated fats added. This study adds to the body of knowledge on nuts which already exists. The Seventh Day Adventists have researched their effects and there have been experiments with almonds and walnuts.

Walnuts are especially interesting because they contain linolenic acid which is generally considered good for the arteries. Probably the best advice is to include a variety of whole nuts as part of a healthy diet - eating a smallish amount each day assuming of course you're not allergic!

For reference

Hu F.B. et al. Frequent nut consumption and risk of coronary heart disease in women: prospective cohort study. *British Medical Journal* 1998;317:1341-1345.
Tiinstall-Pedoe H. Nuts to you (... and you, and you). *British Medical Journal* 1998;317: 1332-1333.

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