

TE TIAIA

Botanical name: *Cnidoscolus aconitifolius* (Euphorbiaceae)

Location specific common names: te tiaia (Kiribati), tiaia (Tuvalu), tree spinach

Fakamatalaga ote Tiaia: Te ‘Tiaia’ se lakau e ola vave kae mafai foki o lasi kae mafua mai ite Yucatan Peninsula i Mexico. Te ‘tiaia’ se lakau mai te kaiga o lakau kote ‘Euphorbia’ tela e fakatino ate vaega tenei ko sua e pela mene susu kae kena. E mafai o ola kite 3-5 mita te maluga, kae mafai o se pokotia i taulaa, te masima mote maluga ote alakalini (alkaline) ote laukele.

Ate ‘tiaia’ ne mai nete polotieki kote Pacific Regional Agricultural Program (PRAP) stage 1 ite 1993 ki Kiribati mo Tuvalu. Te faigofie o ola mote gali ite kai me pau loa mote spinach, tela ne lausa iei te tokiga i fotoaga o tino. Fakamuli ifo e isi se mau ne salalau me ite tiaia e fakamafua neia te masaki kote faapopo (hepatitis) tena ne fakaoga mo fagai a puaka kae ko tiaki foki ke ola vale i koga kola e ola iei. Te tonuga e fai penei, vaega lei ote lakau tenei e puipui neia te ‘ate’ mai vaega sua masei ote foitino. E pela mo lau o tapioka e isi se aofaki foliki o cyanogenic glycosides kae e foliki atu ite aofaki i lau ote tapioca.

Tela la a lau e tau o saka ki vai ke puna kae tuku kise 3 minute, ko tapale iei ki tua. Te niutulieni tenei e galu fua (kite ea) mafai ko tapale ki tua, kae ko vai kola ne saka iei e pau foki loa mo vai kola e saka ei a niisi o lau –vesiapolu, tela e mafai o fakaoga mo fai a suupu.

Fakaaogaaga: Te lakau kote ‘tiaia’ e lasi te fakaoga mo fai a meakai pela foki mo fai a vaivao a latou. A lau e tau o saka ki vai kae fakapuna ko faopoopo iei a lolo ko tuku iei ki loto ite 10 -15 minute.

Vailakau mo fai masaki: Te ‘tiaia’ e lasi te fakaoga ne tino Mexico ite Central America ite puipuiga mote fakaleiga o kiatolo mote suka (e fakatalitonugina te vaega tenei), putalefe, masaki ote fatu (it lowers LDL-cholesterol and high blood pressure), te fiva fever, kilikili i nonu, varicose veins, masaki ote tinae, masaki ote kato mo mata. E puipui foki neia mai sua masei ate fatu, te ate mo nonu maise i tulaga ote timomo ote polotini (protein-energy malnutrition). I tafa iei, e pena foki mote saitian, te namupele, mo lautagitagi e fesoasoani ki suauu o failele mo pepe.

Tenei te faitega ote suupu mai te tiaia: 3 lima fonu i lau ote tiaia (io me ko lau ote lautagitagi, ofega, te saitian, te mota, kangkong, paniken, polofeu, lamupele), 1 te ipu fonu i ika/kano manu (koa oti ne katikati), $\frac{1}{2}$ tapioca falaoa, 1 teaspoon soy sauce, $\frac{1}{2}$ teaspoon suka, 1 tablespoon sinu o niu (or 3 tablespoons lolo), 1 aniani (or several spring onions or a chilli), katikati, 2 teaspoons ginger e katikati, 6 ipu vai, masima mo pepper.

Te mafai o maua: Te lasiga o tiaia e fakaola ne tino pela mene pui o fale io me pui kiei a fotoaga iI tafa o fale. E tiiga a tala se tonu kite lakau tenei kote tiaia, a lakau konei koi toki loa ne tino faifatoaga i Kiribati mo Tuvalu, kae matea foki te ola lei ote lakau tenei kote tiaia.



FACTSHEET 3 : TE TIAIA

Fakaolaga: A lakau ola lei e mafai o faite iei a laku fou kae toki. Ate tiaia e mafai o isi ne ona pula kae faigata o maua ne fuaga, tela la e masani o fakaola mai maga io me kote foitino e katikati kite loa e (25-50cm) mo fai a lakau foou.

E toki pefea: Toki au maga io me foitino ote tiaia kola ne katikati ki one kola ne faka-kaiao kae fakasiusiu ki vai mose leva e 3 masina, io tai leva atu mafai ite taimi ote taua. Mafai e toki tasi mo niisi o lakau kaina fakatatou, e manakogina ke velevele fakalei, pela foki mafai e fakaoga mo fai a pui o fale/fatoaga.

Pokotiaga: Tiaia se lakau e faigofie te pokotia ne manu mo masaki o lakau, kae tai malosi atu kite mota mai masaki (Factsheet 2) kae se lasi te pokotia malosi ki namupele (Factsheet 10).

Te tauga o lau: Tau a lau mafai koa ola lei ate lakau. E mafai o tau a lau i sose taimi, kae pela mo niisi lau-vesiapolu e tau o tausi te 2/3 o lau ote lakau i sose taimi e tau iei, kae maise i taimi ote taua.

Te tauga mote tausiga o lau: A lau e tau o fulu ki vai maa io mene suatai. Pela mote mota mote namupele, e mafai o tuku fakatasi kau o mulo ote lakau, sai fakatasi ko fakatuu ei ki vai. Mafai e pulou kise palasitiki, e mafai o tausi iloto ite aso kite 2 o aso. Kae kafai e tuku kise container kae faulu kite aisa e mafai o leva atu kite vайао. Lau e mafai o fakapoloka kae ko leva atu la te tausiga.

Fakamatalaga ne maua ite sukesukega/Niutulisini: A lau ne tae io me fakamaua mo fai a iloiloga mai Kiribati mo Tuvalu (onoono kite taipola mai lalo). E pela mote ‘mota’, te tiaia e maluga te niutulisini i ona lau, kae maise kote polotini mote fiti (iron). E fakamatala me ite tiaia kote “Mayan green superfood” kae fakatatou kote “Atua o sose meakai mail au-vesiapolu, e uke a minelolo mo niutulieni ne iloilogina. E 2 lima fonu (100gms) ite tino mo se ‘kaiga e tasi, e lava te aofaki ote niutulieni ite aofaki o lau kona.

E isi ne lau ne fakamaua mai Eita, Tabiteuea ki matuu, i Kiribati ne fai te iloiloga kiei kae maua aka me e timomo I kopa (copper), makenisi (manganese) mote potasiamu (potassium), kae matea atu e ola lei lakau kona. Tela la te ola lei ote tiaia ite laukele e mativa i minelolo kona ne fakaasi atu mai luga, e tena foki te pogai e ola lei iei te tiaia i laukele e maluga te pH io me i (alkaline soils).

Te lakau kote tiaia e maumea i polotini (protein), fiti (iron) mo carotenoids:

Polotini: E taua te minelolo tenei ite faitega o kano (muscle), mo uuifi o sela (cell membranes), sua ote foitino (enzymes), vaega ote toto, manu teke atu ki manu o masaki (antibodies), DNA and RNA. I lau ote tiaia ne fai te sukesukega kiei ne maua aka me maluga te levolo ote polotini (protein) e 23 %, e tai paupau loa mote levolo i lekiumu (legumes), lakau kola ne nitrogen-fixers ite laukele.

Te Fiti: E taua mote lei ote toto mote enetise (energy) ite foitino.

Carotenoids: Seki ai se iloiloga ne fai kite vaega o niutulisini tenei, kae e mautino mai niisi o sukesukega ne fai me maumea i Vaitamini (vitamins A, B and C. Serrano et al (2005) kae maluga foki i lutein (1,922 mg/kg) and b-carotene (515 mg/kg) i lau ote tiaia. Te Lutein e taua mote tausiga o mata (e.g. reducing risk of cataracts) and b-carotene (provitamin A) e taua mote taumata, puipuiga mai masaki mote tausiga o ivi ote foitino.

This table compares selected mineral nutrients in leaves of chaya, cassava and noni grown together at Betio, South Tarawa, Kiribati, and English cabbage (average of samples bought from Honiara market, Solomon Islands and Nukualofa market, Tonga in 2012) (concentration in mg/kg dry weight, except N: % dry weight).

	Fe	Mn	Zn	Ca	Mg	K	P	S	N %
Chaya	97	12	32	16000	5600	18100	3600	3500	5.2
Cassava	98	25	89	12300	5100	16100	4100	3500	5.4
Noni	95	9	24	11900	3700	11100	1470	2200	3.0
Cabbage	40	23	20	5700	1450	29000	3750	3750	2.8

Fe: iron; Mn: manganese; Zn: zinc; Ca: calcium; Mg: magnesium; K: potassium; P: phosphorus; S: sulphur; N: nitrogen

Analyses conducted by Waite Analytical Services and the Mares Laboratory, University of Adelaide, South Australia

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