

## **CAMU-CAMU (*Myrciaria dubia* (H.B.K.) McVaugh) + + +**

Camu-camu is a small tree that thrives in lush rain forest soil enriched by the floodwaters of the Amazon Basin. The fruit of the Camu-camu is the world's most concentrated source of naturally occurring vitamin C. Anthropologist Antonio Brack Egg (1999) mentions traditional usage for constipation, flu (grippe), GI disturbances, and rheumatism.

Nearly 95 percent of people in the United States are not getting desirable intakes of vitamin E from foods and beverages. More than half aren't getting enough magnesium, about 40 percent aren't getting enough vitamin A, and nearly one-third aren't getting desirable intakes of vitamin C from the foods and beverages in their diets." (USDA; Sept. 29, 2005. [www.ars.usda.gov/is/pr](http://www.ars.usda.gov/is/pr)).

*Ill.: Fig 163 DAV; FAM.: MYRTACEAE*

**NOTES:** Note that most of the uses are entered because of the high vitamin C content (1; FNF). Cyanidin-3-glucoside, limonene, alpha-pinene, with which phytochemicals Camu-camu is also well endowed.

**ACTIVITIES (CAMU-CAMU):** Acidulant (1; ARC); Aldose-Reductase-Inhibitor (1; X15636180); Allergenic (1; FNF; M&R523); Analgesic (1; FNF; SYN-X); Anorectic (1; FNF; X15862904); Antiacne (1; FNF; JAR12:99); Antiaggregant (1; FNF; SYN-X); Antiaging 1; ABS SYN-X); Antiarthritic (1; FNF; WER); Antiasthmatic (1; FNF; WER); Antiatherosclerotic PAM; `Anticancer (1; FNF; X16302773); Anticataract 350 mg/day WER; AntiCrohn's (1; FNF; M29); Antidepressant (1; FNF; WER); Antidiabetic (1; FNF; SYN-X); Antidote (Aluminum)(1; FNF; EMP6:189); Antidote (Cadmium) (1; FNF; DAS); Antidote (Lead) (1; FNF; DAS); Antidote (Paraquat) (1; FNF; MAR); Antieczemic (1; FNF; WER); Antiedemic (1; DAS; FNF); Antifeedant (1; FNF; JAF45:3276); Antiflu (1; FNF; EMP5:195); Antihepatitic (1; DAS; FNF); Antiherpetic (1; FNF; WER); Antihistaminic (1; FNF; WER); Antiinflammatory (1; FNF; PAM); Antimutagenic (1; EMP6:235; FNF); Antineuramidase (1; FNF; X634178); Antinitrosic (1; FNF; MAR); Antioxidant (1; FNF; X16302773); Antipneumonic (1; FNF; X16248573); Antiradicular (1; FNF; SYN-X); Antiscorbutic (1; FNF; MAR); Antiseptic (1; FNF; MAR); Antistaphylococcic (1; FNF; X16248573); Antitumor (Lung) (1; FNF; NR54:S71); Antiulcer (1; FNF; WER); Antiviral (1; FNF; WER); Apoptotic (1; BO2; FNF; X12921557); Bactericide (1; FNF; DAS); Chemopreventive (1; FNF; X 8841165); Collagenic (1;BO2; FNF); Cytotoxic (1; FNF; X12921557); Detoxicant (1; FNF); Diuretic (1; FNF); Expectorant (1; FNF; MIK); Febrifuge (1; FNF);

EMP6:189); beta-Glucuronidase-Inhibitor (1; BO2; FNF); Hemostat (1; DAS; FNF); Hepatoprotective (1; EMP6:189; FNF); Histaminic (1; FNF; X15862904); Hypocholesterolemic (1; DAS; FNF); Hypoglycemic (1; FNF; SYN-X); Hypotensive (1; SNE137:292); Immunostimulant (1; SYN-X); Insecticide (1; FNF; JAF50:4576; Insectifuge (1; FNF; HH3); Inteferonogenic (1; FNF; PAM); Lipolytic (1; FNF; X15862904); Lithogenic (1; DAS; FNF); Mucolytic (1; FNF; MAR); p450(2B1)-Inhibitor (1; FNF; X9242356); Sedative (1; FNF; LRN-Jun90); Spasmogenic (1; FNF; PR14:623; Spasmolytic (1; FNF; PR14:623; Tranquilizer (1; FNF; LRN-Jun90); Transdermal (1; FNF; X7199340; Uricosuric (1; DAS; FNF); Urinary-Acidulant (1; FNF; M29); Viricide (1; DAS; FNF) Vulnerary (1; FNF; PAM)

**INDICATIONS (CAMU-CAMU):** Arthrosis (1; FNF; WER); Asthma (1; FNF; PAM; X15598576); Atherosclerosis (1; FNF; PAM); Bacteria (1; FNF; DAS); Bleeding (1; DAS; FNF); Cancer (1; FNF; X12921557); Cancer, liver (1; FNF; X12688534); Cancer, lung (1; FNF; X14582701) Cancer, stomach (1; FNF; X12921557); Canker (1; FNF); Cardiopathy (1; X16302773); Cataract (1; FNF; WER); Constipation (f1; EGG; FMF); Cramp (1; FNF; PR14:623; Crohn's (1; FNF; M29); Cold (1; FNF); Depression (1; FNF; WER) Decubitis (1; FNF; MAR); Diabetes (1; FNF; SYN-X; X16302773); Eczema (1; FNF; WER); Edema (1; DAS; FNF); Encephalitis (1; DAS; FNF); Enterosis (f; EGG); Fever (1; FNF; EMP6:189); Flu (f1; EGG; FNF); Fistula (1; FNF; PAM); Gastrosis (f1; EGG; FNF; X12921557); Gingivitis (1; FNF); Glaucoma (1; FNF); Gout (1; FNF); Grippe (f1; EGG; FNF); Hepatosis (1; DAS; FNF; X12688534); Herpes (1; FNF); High Blood Pressure (1; SNE137:292); High Cholesterol (1; DAS; FNF); Hyperglycemia (1; FNF; SYN-X); Immune-Depression (1; SYN-X); Infection (1; FNF; MAR); Infertility (1; FNF; WER); Inflammation (1; FNF; PAM; X15598576); Insomnia (1; FNF; LRN-Jun90); Leprosy (1; FNF; MAR); Measles (1; DAS; FNF); Melanoma (1; FNF; X14582701) Metastasis (1; FNF; X14582701); Migraine (1; FNF; M29); Obesity (1; FNF; WER; X16302773; X15862904); Orchitis (1; DAS; FNF); Osteoarthritis (1; FNF; WER); Osteoporosis (1; FNF; PAM); Pain (1; SYN-X); Parkinson's (1; FNF; WER); Parotosis (1; DAS; FNF); Periodontosis (1; FNF; WER); Pneumonia (1; FNF; PAM); Poliomyelitis (1; DAS; FNF); Pulmonosis (1; FNF; NR54:S71; X14582701); Rheumatism (f; EGG); Senility (1; FNF); Shingles (1; DAS; FNF); Sore (1; FNF; PAM); Spasm (1; FNF; PR14:623); Staphylococcus (1; FNF; X16248573); Syndrome-X (1; FNF; SYN-X); Ulcer (1; FNF; WER); Virus (1; FNF; WER); Water Retention (1; FNF); Wound (f1; EGG; FNF; PAM)

**DOSAGES (CAMU-CAMU):** FNFF = !!. 3-4 fruits providing 300-400 mg vit. C. (JAD). Dosages below based solely on vit. C recommendations and assuming 1 fruit delivers an average 100 mg. vit. C.

- 50-100 fruits for pain
- 4-20 fruits a day for aging
- 2 1/2 fruits a day for arthritis
- 2 1/2 fruits a day plus coffee for asthma
- 3 fruits a day for cardioprotection
- 5 fruits a day for the common cold
- 1 fruit a day for Crohn's disease
- 9-12 fruits a day for eczema
- 5-60 fruits a day for flu
- 5 fruits a day for glaucoma
- 3 fruits a day for high blood pressure
- 3 fruits a day for high cholesterol
- 8 fruits a day for obesity
- 2 fruits a day for osteoporosis
- 5 fruits a day for Parkinson's
- Peruvians drink the fruit juice straight or with water for enterosis, gastrostis and flu (EGG).
- Peruvians poultice the bark onto wounds (EGG).
- Peruvians take the bark decoction with the fruit juice and rum for rheumatism (EGG).

**EXTRACTS (CAMU-CAMU):** Most FNF entries above based on the fact that Camu-camu is the richest edible source of vitamin C. The recent discovery of ellagic-acid brings even more to the food famacy table.

ANTHOCYANINS 250-750 FR X16302773  
ASCORBIC-ACID 20,890-499,000 FR FNF  
CAMPHENE (0.20% HS) FR JAF48:1263  
CAR-3-ENE TR FR JAF48:1263  
BETA-CAROTENE FR FNF  
BETA-CARYOPHYLLENE (4.61% HS) FR JAF48:1263  
CYANIDIN-3-GLUCOSIDE 200-675 FR X16302773  
P-CYMENE (0.31% HS) FR JAF48:1263  
DELPHINIDIN-3-GLUCOSIDE 10-40 FR X16302773  
ELLAGIC-ACID LF X15636180  
EUCALYPTOL TR FR JAF48:1263  
ALPHA-FENCHENE (0.09% HS) FR JAF48:1263  
FENCHOL TR FR JAF48:1263  
HUMULENE TR FR JAF48:1263  
D-LIMONENE (23.72% HS) FR JAF48:1263  
4-O-methylelagic-acid LF X15636180  
BETA-MYRCENE (1.11% HS) FR JAF48:1263  
ALPHA-PHELLANDRENE (0.27% HS) FR JAF48:1263

Depression: antidepressant activities for Camu-camu. There's the anti-anxiety calcium, 4 antidepressant compounds, 4 immunostimulants, and 1 serotonergic compound. In the headspace volatiles, you find 7 antiacetylcholinesterase volatiles, transdermally active, many active when inhaled, which keep the acetylcholine in the synapses functioning. (cineole story)

SAD:  
TOOTHACHE:

TENNIS ELBOW:

VIRUS: 2 antitherpetic, 1 antishingle and 6 antiviral, phytochemicals, but no EBV

### **ANTHOCYANINS 300-9000 ppm**

**CAMPHENE (0.20% HS)** Antilithic; JBH; Antioxidant; Expectorant; Hypocholesterolemic JBH

**BETA-CARYOPHYLLENE (4.61% HS)** Analgesic; Antiacne Antiasthmatic; Anticariogenic; Antiedemic; Antiinflammatory; Antionychyotic; Antistaphylococcic; Antistreptococcic; Antitumor; Antiulcer; Bactericide; Candidicide Fungicide; Gastroprotective Sedative; Spasmolytic

**\*1,8-CINEOLE:** Acaricide; Anesthetic; Antiacetylcholinesterase IC50=41 ug/ml; Antiallergic; Antibronchitic Anticariogenic; Anticatarrh; Anticholinesterase IC50=50-70, etc., etc.

**CYANIDIN-3-O-GLUCOSIDE 264-8,055 ppm** Antidiabetic; Antihyperglycemic; Antihyperinsulenemic; Antiinflammatory; Antiobesity; Antioxidant Antitumor, breast (IC25=158ug/ml), Antitumor, colon IC40=158 ug/ml, Antitumor, lung IC50=158 ug ml; COX-2-Inhibitor IC59= 100 ug/ml; Insulinogenic; Lipolytic; Secretagogue

**P-CYMENE (0.31% HS)** Analgesic; Antiacetylcholinesterase IC40=1.2 mM; Antiflu; Antirheumatologic Bactericide; Fungicide; Laxative ZEB; Sedative ZEB; Trichomonicide LD100=50 ug/ml Viricide

**DELPHINIDIN-3-GLUCOSIDE 13-460 ppm** Antioxidant

**ELLAGIC-ACID:** ACE-Inhibitor; Aldose-Reductase-Inhibitor IC50=0.2 uM; Antiaflatoxin; Antianaphylactic; Antibacillus MIC=0.63 mg/ml; Anticancer (cervix), etc., etc.

**HUMULENE:** Antitumor JNP55: 999

**LIMONENE (23.72% HS)** Asthma; Cancer; Maculitis; Obesity

“Camunes” and Arthritis; and the Raisin Arthritis Treatment

**Camu-Camu and Flu:** 4-analgesic/anesthetic; 8 antibacterials; 1 anticold, 2 antiflu, 2 antihistaminic; 4 antiinflammatories, 9 antioxidants; 6 antiseptics; 5 antivirals; 1 antitussive; 1 decongestant (cineole); 4 expectorant; 3 immuneboosters

**BETA-MYRCENE (1.11% HS)** Analgesic; Anticonvulsant; Antimutagenic; Antioxidant; Bactericide; Chemopreventive Myorelaxant 100-200 mg/kg Spasmolytic

**ALPHA-PHELLANDRENE (0.27% HS)** Antistaphylococcic; Bactericide; Fungicide HH2; Laxative PJB1(1)

**BETA-PHELLANDRENE (0.29% HS)** FR JAF48:1263: Expectorant JBH; Fungicide HH2

**ALPHA-PINENE (66.2% HS)** Antiacne JAR12:99; Antiflu; Antiinflammatory 500mg/kg Antipneumonic; Antiseptic Antistaphylococcic; Antiviral; Bactericide; Cancer-Preventive; Expectorant, etc., etc.

**BETA-PINENE (0.48% HS)** Antiinflammatory; Antiseptic; Candidicide; etc., etc.

**ALPHA-TERPINENE (0.11% HS)** Acaricide Antiacetylcholinesterase IC50=1.0 mM Spasmolytic

**GAMMA-TERPINENE (0.58% HS)** Acaricide; Antiacetylcholinesterase IC23=1.2 mM Antioxidant, etc.

**4-TERPINEOL (0.11% HS)** Analgesic 10-100 ug/ml; Antiacne; Antiallergenic; Antiasthmatic, etc.