

List of All Chemicals

P Triticum aestivum (Poaceae)

Common name(s)

Wheat

How used

Food

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Chemical	Part	Low PPM	High PPM	StdDev	*Reference
1,3-AMINO-PROPYL-PYRROLINIUM	Sprout Seedling	--	--		*
1,3-DIFERULOYL-GLYCEROL	Root	--	--		*
1-O-(6-O-ACYL-BETA-D-GALACTOPYRANOSYL)-2,3-DI-O-ACYL-D-GLY...	Plant	--	--		*
2'-CHLORO-DIAZEPAM	Seed	--	--		*
2'-CHLORO-N-DEMETHYL-DIAZEPAM	Seed	--	--		*
2(3)-BENZOXAZOLINONE	Root	--	--		*
2-(2,4-DIHYDROXY-1,4(2H)-BENZOXAZIN-3(4H)-ON-BETA-D-GLUCOSIDE	Plant	--	--		*
2-(2,4-DIHYDROXY-7-METHOXY-1-4(2H)-BENZOXAZIN-3-(4H)ON)-BETA-D-GLUCOSIDE	Sprout Seedling	--	--		*
2-(2-HYDROXY-4,7-DIMETHOXY-1-4(2H)-BENZOXAZIN-3-ONE-BETA-D-GLUCOSIDE	Leaf	--	--		*
2-(2-HYDROXY-7-METHOXY-1,4(2H)-BENZOXAZIN-3(4H)-ON-BETA-D-GLUCOSIDE	Sprout Seedling	--	--		*
3-HYDROXY-2'-CHLORO-DIAZEPAM	Seed	--	--		*
4-DECYL-PENTA-TRANS-2,4-DIENAL	Plant	--	--		*
5,7,4'-TRIHYDROXY-3',5-DIMETHOXYFLAVONE	Sprout Seedling	--	--		*
6-METHOXY-2(3)1-4(2H)-BENZOXAZOLINONE	Root	--	--		*
8-METHOXYCOUMARIN	Seed	--	--		*
ADENINE	Petiole	--	--		*

Activities (11)

- Antianemic 1.5 g/day Martindale's 28th
- Antigranulocytopenic
- Antiviral
- CNS-Stimulant
- Diuretic
- Hyperuricemic Martindale's 28th
- Insectifuge Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
- Lithogenic
- Myocardiotonic
- Pesticide
- Vasodilator

ADENOSINE	Petiole	--	--		*
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Activities (28)	
Analgesic	
Antiaggregant	
Antiarrhythmic	Merck 11th Edition
Antidiuretic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of <i>Allium sativum</i> L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Antidototoxic 500 mg/kg ipr mus	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.
Antihypertensive	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of <i>Allium sativum</i> L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Antiinsomniac	
Antilipolytic	
Antispasmodic	
Antitachycardic 50-250 ug/kg/ivn	Martindale's 29th
Anxiolytic	
Arteriodilator	
Glucogonogenic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of <i>Allium sativum</i> L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Hypocholesterolemic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of <i>Allium sativum</i> L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Hypoglycemic	
Hypotensive	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of <i>Allium sativum</i> L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Immunomodulator	
Insulinic	
Laxative	
Lipolytic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of <i>Allium sativum</i> L. and related species. Williams & Wilkins, Baltimore. 329 pp.
Myorelaxant	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
PAF-Inhibitor IC50=90 nM	
PAF-Inhibitor 0.024 ug/ml	
Pyrogenic 0.09 mg/kg ivn hmn	Conradson, T. B. G., Dixon, C. M. S., Clarke, B., Barnes, P. J. 1987. Cardiovascular Effects of Infused Adenosine in Man: Potentiation by Dipyridamole. <i>Acta Physiol Scand</i> , 129(3): 387-391.
Respirastimulant	Martindale's 29th
Secretomotor	
Sedative	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Vasodilator	

ALANINE	Seed	3036.0	3542.0	-1.41	*
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Activities (3)	
Antioxidant	Larson, R.A. 1987. Review Article Number 30. The Antioxidants of Higher Plants. <i>Phytochemistry</i> . 27: 969-978.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Oxidant	Larson, R.A. 1987. Review Article Number 30. The Antioxidants of Higher Plants. <i>Phytochemistry</i> . 27: 969-978.

ALBUMIN	Seed	30000.0	50000.0		*
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ALLANTOIN	Embryo	--	--		*
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Activities (12)	
Antidandruff	A.L.L. Hunting. Encyclopedia of Shampoo Ingredients. Micelle Press, Cranford NJ. 467 pp.
Antiinflammatory	
Antioxidant	
Antipeptic 30-130 mg/man/day	25 Dispensatory
Antipsoriac 2%	Martindale's 28th
Antiradicular	
Antiulcer	
Immunostimulant	
Keratolytic	Martindale's 28th
Sunscreen 0.10%	Jim Duke's personal files.
Suppurative	
Vulnerary	

ALPHA-AMYLASE	Seed	--	--		*
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ALPHA-AMYRIN	Seed	--	--		*
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Activities (10)

- Analgesic
- Antiedemic IC43=40 mg/kg ipr rat
- Antiinflammatory IC71=1,000 ppm orl
- Antinociceptive
- Antitumor
- Antiulcer
- Cytotoxic 50-400
- Gastroprotective
- Hepatoprotective
- Insectifuge

ALPHA-CARBOXYLASE	Seed	--	--		*
ALPHA-DIHYDROXYCAROTENE	Seed	--	1.0		*
ALPHA-TOCOPHEROL	Seed	--	1271.0	3.31	*

Activities (32)

- Antialzheimeran
- Antianginal
- Antiarthritic
- Antiasthmatic
- Antiatherosclerotic Soumyanath, A. Ed. 2006. Traditional Medicines for Modern Times - Antidiabetic Plants. CRC Press, Taylor & Francis Group. Boca Raton, FL. 314 pp.
- Anticancer
- Anticataract
- Anticonvulsant Synergen
- Antidementia
- Antidiabetic Soumyanath, A. Ed. 2006. Traditional Medicines for Modern Times - Antidiabetic Plants. CRC Press, Taylor & Francis Group. Boca Raton, FL. 314 pp.
- Antiinfarctal Soumyanath, A. Ed. 2006. Traditional Medicines for Modern Times - Antidiabetic Plants. CRC Press, Taylor & Francis Group. Boca Raton, FL. 314 pp.
- Antiinfertility
- Antiischemic
- Antimaculitic
- Antimutagenic Economic & Medicinal Plant Research, 6: 235.
- Antineuropathic
- Antioxidant 5 x quercetin
- Antioxidant IC34=10 uM
- Antiparkinsonian
- Antiradicular 5 x quercetin
- Antiretinotic
- Antirheumatic
- Antistroke
- Antitumor
- Antitumor (Bladder)
- Antitumor (Prostate)
- Antitumor (Stomach)
- Antitumor-Promoter
- Cancer-Preventive
- Cardioprotective
- Circulotonic
- Immunomodulator

ALPHA-TOCOPHEROL	Oil	1508.0	2170.0	2.51	*
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Activities (32)

Antialzheimeran	
Antianginal	
Antiarthritic	
Antiasthmatic	
Antiatherosclerotic	Soumyanath, A. Ed. 2006. Traditional Medicines for Modern Times - Antidiabetic Plants. CRC Press, Taylor & Francis Group. Boca Raton, FL. 314 pp.
Anticancer	
Anticataract	
Anticonvulsant Synergen	
Antidementia	
Antidiabetic	Soumyanath, A. Ed. 2006. Traditional Medicines for Modern Times - Antidiabetic Plants. CRC Press, Taylor & Francis Group. Boca Raton, FL. 314 pp.
Antiinfarctal	Soumyanath, A. Ed. 2006. Traditional Medicines for Modern Times - Antidiabetic Plants. CRC Press, Taylor & Francis Group. Boca Raton, FL. 314 pp.
Antiinfertility	
Antiischemic	
Antimaculitic	
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antineuropathic	
Antioxidant 5 x quercetin	
Antioxidant IC34=10 uM	
Antiparkinsonian	
Antiradicular 5 x quercetin	
Antiretinotic	
Antirheumatic	
Antistroke	
Antitumor	
Antitumor (Bladder)	
Antitumor (Prostate)	
Antitumor (Stomach)	
Antitumor-Promoter	
Cancer-Preventive	
Cardioprotective	
Circulotonic	
Immunomodulator	

ALPHA-TRITICENE	Leaf	--	--	*
ALPHA-TRITISTEROL	Sprout Seedling	--	--	*
AMMONIALYASE	Seed	--	--	*
APIGENIN	Seed	--	--	*

Activities (101)

11B-HSD-Inhibitor	
AntiADD	
AntiHIV IC72=200 ug/ml	
AntiHIV IC50=143 ug/ml	
Antiaflatoxin IC50=9.52 uM	
Antiaflatoxin IC50=2.57 ppm	
Antiaggregant	
Antiaging	
Antiallergic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiangiogenic 4 uM	
Antiarrhythmic	
Antibacterial	Recio, M. C., Rios, J. L., and Villar, A., A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, <i>Phytotherapy Research</i> , 3(4), 1989, 117-125.
Anticancer (Lung)	
Anticomplementary	
Antidermatitic	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
Antiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiherpetic 20-54 ug/ml	
Antihistaminic IC50=10-35 uM	
Antiinflammatory #NAME?	
Antiinflammatory IC~65=1,000 uM	

Antileukemic 20-50 uM	
Antimelanomic 1-50 uM	
Antimetastatic 1-50 uM	
Antimutagenic ID50=10-40 nM	Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Antimutagenic ID50=0.55 ug/ml	
Antioxidant 1.5 x Vit. E	
Antioxidant IC28.5=62.5 ug/ml	
Antiperistaltic	
Antiproliferant 1-50 uM	
Antiproliferant IC50=155 uM	
Antispasmodic EC50=1-5 uM	
Antistress 10 mg/kg	
Antithyroid	Jim Duke's personal files.
Antitumor 1-50 uM	
Antitumor (Breast) 1-50 uM	
Antitumor (Lung)	
Antitumor (Skin)	
Antiviral 20-54 ug/ml	
Anxiolytic 10 mg/kg	
Apoptotic 12-60 uM	
Aromatase-Inhibitor IC65=1 uM/l	Journal of Medicinal Food 2: 235.1999.
Beta-Glucuronidase-Inhibitor IC50=40 uM	
CNS-Depressant	
COX-1-Inhibitor IC65=1,000 uM	
COX-2-Inhibitor IC>65=1,000 uM	
COX-2-Inhibitor <40 uM	
COX-2-Inhibitor IC50=<15 uM	
Calcium-Antagonist?	Biochimica & Biophysica Acta, 1115: 69, 1991.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Choleretic	
Cyclooxygenase-Inhibitor	
Cytochrome-P450-1A1-Inhibitor	
Cytotoxic IC88=10 ug/ml	Planta Medica, 57: A113, 1991.
Cytotoxic 1-50 uM	
Cytotoxic IC50=9.5 uM	
DNA-Protective	
Deiodinase-Inhibitor	Jim Duke's personal files.
Differentiator MIC=30 uM	
Differentiator IC40=40 uM	
Diuretic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Estrogenic EC50=0.1-25 uM/l	Journal of Medicinal Food 2: 227.1999.
Estrogenic 16% genistein	
Estrogenic EC50=1 uM	
HIF-1alpha-Inhibitor	
Hyaluronidase-Inhibitor IC50+=50-250 uM	
Hypotensive	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
ICAM-1-Inhibitor	
IKK-Inhibitor	
Inotropic	
Interleukin-6-Inhibitor	
MAO-Inhibitor	
MAPK-Inhibitor	
Musculotropic	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
Mutagenic	
Myorelaxant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
NADH-Oxidase-Inhibitor	
NF-kB-Inhibitor	
NO-Synthase-Inhibitor 5-50 uM	

Nodulation-Signal	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Ornithine-Decarboxylase-Inhibitor	
P21-Inducer 10-70 uM	
PKC-Inhibitor IC50=10 uM	
PTK-Inhibitor 10-100 uM	
Pesticide	
Polyamine-Synthesis-Inhibitor	
Progestational	
Protein-Kinase-C-Inhibitor IC50=3.27 uM	
Quinone-Reductase-Inducer 20 uM	Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. Cancer Lett., 120 (2): 213-216.
Radioprotective	
Sedative 30-100 mg/kg	
Sunscreen	
TNF-alpha-Inhibitor IC50=3.27 uM	
Topoisomerase-I-Inhibitor	Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. Toxicol Ind Health, 14: 223-237.
Topoisomerase-II-Inhibitor 50 ug/ml	Azuma, Y., Onishi, Y., Sato, Y., Kizaki, H. 1995. Effects of Protein Tyrosine Kinase Inhibitors With Different Modes of Action on Topoisomerase Activity and Death of IL-2-Dependent CTLL-2-Cells. J Biochemistry, 118: 312-318.
Topoisomerase-II-Inhibitor IC28=18 uM	
Topoisomerase-II-Inhibitor IC45=180 uM	
Uterotrophic EC50=0.1-25 uM/l	Journal of Medicinal Food 2: 227.1999.
VEGF-Inhibitor IC50=2-7 uM	
Vasodilator	
Xanthine-Oxidase-Inhibitor 0.36 uM	
iNOS-Inhibitor IC50=<15 uM	

ARABINOSE	Stem	--	--		*
ARGININE	Seed	4000.0	12000.0	-0.54	*

Activities (14)

Antidiabetic?	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
Antiencephalopathic	Martindale's 29th
Antihepatic	Martindale's 29th
Antihypertensive	
Antiimpotence	
Antiinfertility 4 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antioxidant?	
Aphrodisiac 3 g/day	
Diuretic	
Hypoammonemic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
NO-Genic	
Pituitary-Stimulant	
Spermigenic 4 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Vasodilator	

ARSENIC	Seed	--	0.079	0.06	*
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Activities (2)

Anorexic	Forest H. Nielsen, USDA, Grand Forks, various publications.
Pesticide	

ASCORBIC-ACID	Seed	--	--		*
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Activities (112)

Acidulant FEMA 6,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Aldose-Reductase-Inhibitor	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Analgesic 5-10 g/day	

Angiotensin-Receptor-Blocker	
AntiAGE 2,000 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
AntiCFS 500-1,000 mg	
AntiCTS 1,000 mg 3x/day	
AntiCrohn's 50-100 mg/day/orl/man	Martindale's 29th
AntiLyme 500-2,000 mg	
AntiRaynaud's 500 mg 1-2x/day	
Antiaggregant	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antiaging 400 mg/day	
Antiallergic	
Antialzheimeran 2,000-6,000 mg/day	
Antiarthritic 0.2-1 g/day	
Antiasthmatic 1,000 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiatherosclerotic	
Antibacterial	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anticataract 350 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Anticataract 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Anticataract 1 g 3x/day	
Anticervicaldysplasic 1,000-2,000 mg/day	
Anticlimacteric 500-5,000 mg/day	
Anticold 1-2 g/man/day	
Antidecubic 500 mg/man/2x/day	Martindale's 28th
Antidementia	
Antidepressant 2,000 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidiabetic	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antidote (Aluminum)	Economic & Medicinal Plant Research, 6: 189.
Antidote (Cadmium)	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Lead)	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Paraquat)	Martindale's 28th
Antieczemic 3.5-5 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiedemic 1 g/man/day	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiencephalitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiendometriotic 2,000 mg/day	
Antifatigue 500-1,000 mg	
Antifibrotic 1,000-2,000 mg	
Antigallstone 1,000-3,000 mg/day	
Antigastritic	
Antingingivitic	
Antiglaucomic 2 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antihangover 1,000 mg	
Antihemorrhagic 1 g/man/day	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihepatitic 2-6 g/man/day	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihepatotoxic	Economic & Medicinal Plant Research, 6: 189.
Antiherpetic 1-5 g/day	
Antihistaminic 2 g/day orl man	
Antihypertensive	
Antiinfertility 1 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinflammatory	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antileptic 1.5 g/man/day	Martindale's 28th
Antilithic 1,000-3,000 mg/day	
Antimaculitic	
Antimeasles	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antimenopausal 500-5,000 mg/day	
Antimigraine	Martindale's 29th
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antineuramidase	
Antinitrosic 1 g/man/day	Martindale's 28th
Antioesity 1 g 3x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiorchitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

Antiosteoarthritis 1 g 2x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiosteoporotic 500 mg/day	
Antioxidant 100 ppm	
Antiparkinsonian 1 g 2-3x/day	
Antiparotitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiperiodontic 1 g 2x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antipneumonic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antipodriac	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antipoliomyelitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antipyretic	Economic & Medicinal Plant Research, 6: 189.
Antiradicular	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antiretinotic	
Antirheumatic	
Antirhinitic 1,000 mg 3x/day	
Antiscorbutic 10 mg/man/day	Martindale's 28th
Antiseptic MIC=3.3-217 mg/ml	Martindale's 28th
Antiseptic 4-8 g/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antishingles	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antispasmodic 500-5,000 mg/day	
Antistress 500-1,000 mg	
Antisyndrome-X 1-4 g/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antitumor (Gastric)	
Antitumor (Lung)	
Antiulcer	
Antiviral 1-5 g/day	
Apoptotic 1-10 mM	
Asthma-preventive 1,000 mg/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Beta-Adrenergic Receptor Blocker	
Beta-Glucuronidase-Inhibitor 1.5 g/day/man	
Calcium-Antagonist	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cardioprotective	
Cold-preventive 1-2 g/day	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Collagenic	
Detoxicant	
Diuretic 700 mg/man/orl	
Fistula-Preventive	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Hypocholesterolemic 300-1,000 mg/day	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Hypoglycemic	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Hypotensive 1,000 mg/man/day	
Immunomodulator	
Immunostimulant	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Interferonogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Lithogenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Mucolytic 1 g/woman/day	Martindale's 28th
Pesticide	
Uricosuric 4 g/man/day	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Urinary-Acidulant	Martindale's 29th
Vasodilator	
Vulnerary	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

ASH	Seed	4000.0	12000.0	-1.08	*
ASPARAGINE-SYNTHESASE	Seed	--	--		*
ASPARTIC-ACID	Seed	5106.0	5957.0	-1.48	*

Activities (53)

Allergenic	
Androgenic?	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
AntiPMS	
Antiacne	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiaging	
Antiarthritic	
Antiasthmatic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticancer	Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY.
Anticarcinomic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticervicaldysplasic	
Anticoronary 50 mg/man/2 days	
Antihyperkeratotic	
Antiichthyotic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antileukoplakic	
Antilipoperoxidant IC71=50 ug/ml	
Antilupus 150 mg/man/day/2 mos	Martindale's 28th
Antimaculitic	
Antimastitic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antioxidant	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiozenic	
Antipapillomic	
Antiphotophobic 30-300 mg/man/day	Martindale's 29th
Antipityriasic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiporphyrhic 30-300 mg/man/day	Martindale's 28th
Antiproliferant	Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY.
Antipsoriac	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiradicular	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antirheumatic	
Antistress	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antitumor	Simon, P.W. Carrots and Other Horticultural Crops as a Source of Provitamin A Carotenes. HortScience, 25(12): 1495, 1990.
Antitumor (Breast) IC45=60 ug/ml	
Antitumor (CNS) IC43=45 ug/ml	
Antitumor (Colon) IC43=45 ug/ml	
Antitumor (Lung) IC30=60 ug/ml	
Antitumor (Prostate)	
Antitumor (Stomach) IC26=45 ug/ml	
Antiulcer 12 mg 3x/day/man/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiulcer 15,000-25,000 IU/day	
Antixerophthalmic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
COX-1-Inhibitor IC78=50 ug/ml	
COX-2-Inhibitor IC82=50 ug/ml	
Cancer-Preventive 22 ppm	Jim Duke's personal files.
Chemopreventive	
Colorant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Gastroprotective	
Immunostimulant 180 mg/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Interferon-Synergist	
Mucogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Phagocytotic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Prooxidant 20 ug/g	
Thymoprotective	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Ubiquiot	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

BETA-IONONE

Plant

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Activities (13)	
Allergenic	
Antibacterial MIC=200 ug/ml	Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. J. Agric. Food Chem. 41: 1102-1105.
Anticariogenic MIC=100 ug/ml	Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. J. Agric. Food Chem. 41: 1102-1105.
Antimelanomic IC50=140 uM/l	
Antitumor	Yu, S.G., Anderson, P.J., and Elson, C.E. 1995. Efficacy of B-Ionone in the Chemoprevention of Rat Mammary Carcinogenesis. J. Agric. Food Chem. 43: 2144-2147.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cytochrome-P450-Inducer	
Fungicide	
Hypocholesterolemic	Yu, S.G., Anderson, P.J., and Elson, C.E. 1995. Efficacy of B-Ionone in the Chemoprevention of Rat Mammary Carcinogenesis. J. Agric. Food Chem. 43: 2144-2147.
Nematicide MLC=1 mg/ml	Shoyakugaku Zasshi, 44: 183.
P450-Inducer	
Pesticide	
Trichomonicide LD100=100 ug/ml	

BETA-TRITISTEROL	Sprout Seedling	--	--		*
BETAINE	Shoot	--	1640.0	2.22	*

Activities (14)	
Abortifacient	
Antigastritic	Martindale's 29th
Antihomocystinuric	
Antimyotrophic	
Bruchiphobe	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Cardioprotective	
Diuretic	Wealth of India.
Emmenagogue	Wealth of India.
Ethanolytic	
Expectorant	
Hepatoprotective	
Lipotropic	
Mucogenic	
Pesticide	

BETAINE	Root	--	82.0	-0.36	*
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Activities (14)	
Abortifacient	
Antigastritic	Martindale's 29th
Antihomocystinuric	
Antimyotrophic	
Bruchiphobe	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Cardioprotective	
Diuretic	Wealth of India.
Emmenagogue	Wealth of India.
Ethanolytic	
Expectorant	
Hepatoprotective	
Lipotropic	
Mucogenic	
Pesticide	

BIOTIN	Seed	--	216.0	0.44	*
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Activities (4)	
Antialopepic	
Antidermatitic 3 mg/2x/day	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antineuralgic	
Antiseborrheic 3 mg/2x/day	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

BORON	Seed	1.0	16.0	-0.38	*
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Activities (4)

Androgenic 3 mg/man/day

Antiosteoarthritic

Werbach, M. 1993. *Healing with Food*. Harper Collins, New York, 443 pp.

Antiosteoporotic 3 mg/man/day

Estrogenic 3 mg/man/day

CADMIUM

Seed

--

0.252

-0.22

*

Activities (3)Hypertensive Pizzorno, J.E. and Murray, M.T. 1985. *A Textbook of Natural Medicine*. John Bastyr College Publications, Seattle, Washington (Looseleaf).Lithogenic Pizzorno, J.E. and Murray, M.T. 1985. *A Textbook of Natural Medicine*. John Bastyr College Publications, Seattle, Washington (Looseleaf).Nephrotoxic Pizzorno, J.E. and Murray, M.T. 1985. *A Textbook of Natural Medicine*. John Bastyr College Publications, Seattle, Washington (Looseleaf).

CAFFEIC-ACID

Seed

3.0

4.0

-0.77

*

Activities (102)Aldose-Reductase-Inhibitor 4 ug/ml (weak activity) Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. *Sankyo Kenkyusho Nempo*, 43: 99-110.

Allergenic

Analgesic

AntiHIV EC50=200 ug/ml

AntiLegionella

Antiadenoviral

Economic & Medicinal Plant Research, 5: 207.

Antiaggregant

Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

Antiaging

Antiatherogenic

Antibacterial

Anticancer

Anticarcinogenic

Economic & Medicinal Plant Research, 6: 189.

Antidepressant

Antiedemic

Economic & Medicinal Plant Research, 6: 189.

Antielastase IC50=93 um/l

Antielastase IC50=86 ug/ml (475 uM)

Antiescherichic

Antiflu

Economic & Medicinal Plant Research, 5: 207.

Antigonadotropic

Jim Duke's personal files.

Antihemolytic 25 uM

Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. *Phytochemistry*. 36(3): 579-583. 1994.Antihepatoadenomic 200 ppm diet orl
mus

Antihepatotoxic

Antiherpetic 50 ug/ml

Antiherpetic EC50=>50 ug/ml

Antihistaminic

Antihypercholesterolemic

Economic & Medicinal Plant Research, 6: 189.

Antihyperthyroid

Antiinflammatory

Antileukemic

Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antileukotriene

Antimelanogenic

Antimutagenic

Ki Soon Rhee. *Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. Phenolic Compounds in Food and Their Effects on Health*, Ch.18.

Antinitrosaminic

Ki Soon Rhee. *Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. Phenolic Compounds in Food and Their Effects on Health*, Ch.18.

Antiophidic

Antioxidant 50 uM

Antioxidant IC57=30 ppm

Antioxidant 1/3 quercetin

Antioxidant 30 mM

Antioxidant 1.3 x Vit. E

Antioxidant 1/2 BHA

Antiperoxidant IC50=44 uM

Planta Medica, 57: A54, 1991.

Antiperoxidant IC35=200 ug/ml

Antiperoxidant IC85=100 ug/ml

Antiproliferant

Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antiprostaglandin

Antiradicular 10 uM

Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. *Phytochemistry*. 36(3): 579-583. 1994.

Antiradicular 1/3 quercetin	
Antiradicular 30 mM	
Antiradicular IC50=32-35 uM	
Antiseptic	
Antispasmodic EC50=3.4-15 uM	Phytotherapy Research, 4: 73.
Antistaphylococcic	
Antistomatitic	Economic & Medicinal Plant Research, 5: 207.
Antisunburn	
Anthithiamin	Phenolic Compounds in Food and Their Effects on Health, 69.
Antithyroid	Jim Duke's personal files.
Antitumor 200 ppm diet orl mus	
Antitumor (Skin)	
Antitumor-Promoter IC42=10 uM	Cancer Research, 48: 5941.
Antiulcerogenic	
Antivaccinia	Economic & Medicinal Plant Research, 5: 207.
Antiviral IC50=62.5 ug/ml	
Anxiolytic	
CNS-Active	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
COX-2-Inhibitor IC32=100 uM	
Calcium-Antagonist IC50=1.2 uM rbt	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Carcinogenic 2% (diet)	
Chemopreventive	
Cholagogue	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
Choleretic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Clastogenic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Co-carcinogenic	
Collagen-Sparing	
Cytoprotective	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Cytotoxic TC50=200 ug/ml	
DNA-Active	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
DNA-Protective	
Diuretic	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
Fungicide MIC=0.4 mg/ml	
Hepatocarcinogenic 400 ppm diet orl mus (in the absence of alcohol)	
Hepatoprotective	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 210.
Hepatotropic	
Histamine-Inhibitor	
Immunostimulant	
Insectifuge	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
Leukotriene-Inhibitor	
Lipoxygenase-Inhibitor IC27=5 mM	Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690.
Lipoxygenase-Inhibitor IC50=62-148 uM	
Lyase-Inhibitor IC50=94-164 uM	
Metal-Chelator	McEvily, A.J., Iyengar, R., and Gross, A.T. Inhibition of Polyphenol Oxidase by Phenolic Compounds. Phenolic Compounds in Food and Their Effects on Health, Ch.25.
Ornithine-Decarboxylase-Inhibitor	Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.
Pesticide	
Prooxidant	
Prostaglandigenic	
Sedative 500 mg	
Sunscreen IC50=2.5 mg/l	Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. Fitoterapia 64(2): 134-136, 1993.
Sunscreen IC91=5 mg/l	Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. Fitoterapia 64(2): 134-136, 1993.
Sunscreen IC98=25 mg/l	Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. Fitoterapia 64(2): 134-136, 1993.
Tumorigenic	Jim Duke's personal files.
Vulnerary	
Xanthine-Oxidase-Inhibitor IC50=39.21 uM	Mills, Simon and Bone, Kerry. 2000. Phytotherapy. Churchill Livinston, Edinburgh.

CALCIUM Seed 100.0 4100.0 -0.01 *

Activities (28)

AntiPMS 1 g/day
Antiallergic 500 mg/day
Antianxiety Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiarrhythmic 500-1,500 mg
Antiarthritic 1,000 mg/day
Antiatherosclerotic 500 mg/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Anticlimacteric 1,000-1,500 mg/day
Antidepressant Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Aluminum) Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Lead) Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihyperkinetic Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihypertensive
Antiinsomniac Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

Antimenopausal 1,000-1,500 mg/day
Antiobesity
Antiosteoporotic 500-2,000 mg/day
Antiperiodontitic 750 mg/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antirheumatic 1,000 mg/day
Antistress 500-1,500 mg/day
Antitic Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anxiolytic 500-1,500 mg/day
Calcium-Channel-Blocker
Diuretic
Hypocholesterolemic 500 mg/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Hypotensive 1 g/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Laxative 1,000-1,200 mg
Tranquilizer 500-1,500 mg/day
Vasodilator

CALCIUM Plant 900.0 10400.0 -0.34 *

Activities (28)

AntiPMS 1 g/day
Antiallergic 500 mg/day
Antianxiety Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiarrhythmic 500-1,500 mg
Antiarthritic 1,000 mg/day
Antiatherosclerotic 500 mg/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Anticlimacteric 1,000-1,500 mg/day
Antidepressant Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Aluminum) Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Lead) Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihyperkinetic Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihypertensive
Antiinsomniac Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antimenopausal 1,000-1,500 mg/day
Antiobesity
Antiosteoporotic 500-2,000 mg/day
Antiperiodontitic 750 mg/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antirheumatic 1,000 mg/day
Antistress 500-1,500 mg/day
Antitic Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anxiolytic 500-1,500 mg/day
Calcium-Channel-Blocker
Diuretic
Hypocholesterolemic 500 mg/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Hypotensive 1 g/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Laxative 1,000-1,200 mg
Tranquilizer 500-1,500 mg/day
Vasodilator

CAMPESTEROL-3-O-BETA-D-GLUCOSIDE Seed -- -- *

CAPRINIC-ACID	Seed	--	--		*
CARBOHYDRATES	Seed	--	61000.0	0.34	*
CAROTENE	Plant	97.0	953.0	1.0	*
CATALASE	Sprout Seedling	--	--		*

Activities (1)

Antioxidant Jim Duke's personal files.

CEPHALIN	Seed	--	--		*
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Activities (1)

Hemostat Merck 11th Edition

CHLORINE	Seed	300.0	1800.0	2.96	*
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Activities (7)

Antibacterial Martindale's 29th
 Antiherpetic Martindale's 29th
 Antiseptic Martindale's 29th
 Antiviral Martindale's 29th
 Candidicide Martindale's 29th
 Fungicide Martindale's 29th
 Pesticide Martindale's 29th

CHLORINE	Plant	670.0	3400.0	-0.7	*
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Activities (7)

Antibacterial Martindale's 29th
 Antiherpetic Martindale's 29th
 Antiseptic Martindale's 29th
 Antiviral Martindale's 29th
 Candidicide Martindale's 29th
 Fungicide Martindale's 29th
 Pesticide Martindale's 29th

CHLOROGENIC-ACID	Seed	--	5.0	-0.62	*
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Activities (77)

Aldose-Reductase-Inhibitor IC50=1.8 uM rat (strong activity) Yoshikawa, M., et al. 1999. Medicinal Flowers. I. Aldose Reductase Inhibitors and Three New Eudesmane-Type Sesquiterpenes, Kikkanols A, B, and C, From the Flowers of Chrysanthemum indicum L. Chem Pharm Bull, 47(3): 340-345.

Allelochemic

Allergenic

Analgesic

AntiEBV Economic & Medicinal Plant Research, 6: 189.

AntiHIV Economic & Medicinal Plant Research, 6: 189.

AntiLegionella

Antiatherosclerotic

Antibacterial

Anticancer (Colon)

Anticancer (Forestomach)

Anticancer (Liver)

Anticancer (Skin)

Anticarcinogenic

Antidiabetic

Antifeedant

Antigenotoxic

Antigonadotropic Jim Duke's personal files.

Antihemolytic 10 uM Ohnishi, M., Morishita, H., Iwashita, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. Phytochemistry. 36(3): 579-583. 1994.

Antihepatotoxic

Antiherpetic Economic & Medicinal Plant Research, 5: 194.

Antihistaminic

Antihypercholesterolemic Economic & Medicinal Plant Research, 6: 189.

Antihyperthyroid

Antiinflammatory Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.

Antileukotriene

Antimelanogenic	
Antimutagenic	
Antinitrosaminic	
Antioxidant IC53=200 ppm	Huang, M.-T., and Ferraro, T. Phenolic Compounds in Food and Cancer Prevention. Phenolic Compounds in Food and Their Effects on Health, Ch.2 p.21.
Antioxidant IC80=12 uM	
Antioxidant IC50=54.2 uM	
Antiperoxidant IC50=36 uM	Planta Medica, 57: A54, 1991.
Antipolio	Jim Duke's personal files.
Antiradicular 10 uM	Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. Phytochemistry. 36(3): 579-583. 1994.
Antiradicular 9 x quercetin	
Antiseptic	
Antisunburn	
Antithyroid	Jim Duke's personal files.
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antitumor (Colon)	
Antitumor (Forestomach)	
Antitumor (Liver)	
Antitumor (Skin)	
Antitumor-Promoter IC25=10 uM	
Antiulcer	Economic & Medicinal Plant Research, 6: 189.
Antiviral	Vlietinck, A.J. and Dommissie, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.
Autotoxic	
CNS-Active	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
CNS-Stimulant 1/6 Caffeine	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cardioprotective	
Chemopreventive	
Cholagogue	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
Choleretic	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Clastogenic	Friedman, M. and Dao, L. 1990. Effect of Autoclaving and Conventional and Microwave Baking on the Ergot Alkaloid and Chlorogenic Acid Contents of Morning Glory (Ipomoea tricolor Cav. cv.) Heavenly Blue Seeds. J. Agric. Food Chem. 38: 805-808.
Collagen-Sparing	
Diuretic	
Fungicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Hepatoprotective	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Histamine-Inhibitor	
Hypoglycemic	
Immunostimulant	
Insectifuge	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
Interferonogenic	Economic & Medicinal Plant Research, 1: 124.
Juvabional	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Larvostat	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Leukotriene-Inhibitor	
Lipoxygenase-Inhibitor IC23=5 mM	Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690.
Metal-Chelator	McEvily, A.J., Iyengar, R., and Gross, A.T. Inhibition of Polyphenol Oxidase by Phenolic Compounds. Phenolic Compounds in Food and Their Effects on Health, Ch.25.
NO-Genic	
Ornithine-Decarboxylase-Inhibitor	Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.
Oviposition-Stimulant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide	
Sunscreen	
Sweetener	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Vulnerary	

CHLOROPHYLL-A	Plant	--	--		*
CHLOROPHYLL-B	Plant	--	--		*
CHOLINE	Shoot	--	121.0	-0.61	*

Activities (20)

Antialzheimeran 5-16 g/man/day	
Antichoreic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anticirrhotic 6,000 mg/man/day	
Anticystinuric	
Antidementia	
Antidiabetic	
Antidyskinetic 150-200 mg/kg/man/day	Martindale's 28th
Antihomocysteine	
Antimanic 15-30 g/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antinociceptive	
Antisteatotic	
Cardiodepressant	
Cerebrotonic	
Cholinergic	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Hepatoprotective	
Hypotensive	
Ileorelaxant	
Lipotropic	
Memorigenic	
Parasympathomimetic (1/1,000th acetylcholine)	Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.

CHOLINE Seed 530.0 1800.0 0.12 *

Activities (20)

Antialzheimeran 5-16 g/man/day	
Antichoreic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anticirrhotic 6,000 mg/man/day	
Anticystinuric	
Antidementia	
Antidiabetic	
Antidyskinetic 150-200 mg/kg/man/day	Martindale's 28th
Antihomocysteine	
Antimanic 15-30 g/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antinociceptive	
Antisteatotic	
Cardiodepressant	
Cerebrotonic	
Cholinergic	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Hepatoprotective	
Hypotensive	
Ileorelaxant	
Lipotropic	
Memorigenic	
Parasympathomimetic (1/1,000th acetylcholine)	Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.

CHOLINE Root -- 48.0 -0.41 *

Activities (20)	
Antialzheimeran 5-16 g/man/day	
Antichoreic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anticirrhotic 6,000 mg/man/day	
Anticystinuric	
Antidementia	
Antidiabetic	
Antidyskinetic 150-200 mg/kg/man/day	Martindale's 28th
Antihomocysteine	
Antimanic 15-30 g/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antinociceptive	
Antisteatotic	
Cardiodepressant	
Cerebrotonic	
Cholinergic	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Hepatoprotective	
Hypotensive	
Ileorelaxant	
Lipotropic	
Memorigenic	
Parasympathomimetic (1/1,000th acetylcholine)	Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.

CITRININ Seed -- -- *

Activities (2)	
Aldose-Reductase-Inhibitor IC50=10 uM	Deruiter, J., Jacyno, J. M., Davis, R. A., Cutler, H. G. 1992. Studies on Aldose Reductase Inhibitors from Fungi. I. Citrinin and Related Benzopyran Derivatives. J Enzyme Inhibit, 6(3): 201-210.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

COBALT Seed 0.06 0.15 -0.2 *

Activities (2)	
Cardiomyopathogenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Erythrocytogenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

COBALT Plant 0.03 0.15 -0.47 *

Activities (2)	
Cardiomyopathogenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Erythrocytogenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

COPPER Seed 1.1 16.7 0.17 *

Activities (12)	
Antianemic	
Antiartritic	
Antidiabetic 2-4 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antifatigue	
Antiinflammatory	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antinociceptive	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiosteoporotic	
Cardioprotective	
Contraceptive	Martindale's 28th
Hypocholesterolemic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Immunomodulator	
Schizophrenigenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

COPPER Plant 2.2 4.0 -1.11 *

Activities (12)	
Antianemic	
Antiarthritic	
Antidiabetic 2-4 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antifatigue	
Antiinflammatory	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antinociceptive	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiosteoporotic	
Cardioprotective	
Contraceptive	Martindale's 28th
Hypocholesterolemic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Immunomodulator	
Schizophrenigenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

CYSTEINE Seed 1242.0 1449.0 -0.77 *

Activities (13)	
AntiAddisonian	
Antibiotic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Anticataract	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticytotoxic	
Antiophthalmic	Martindale's 28th
Antioxidant	Jim Duke's personal files.
Antitumor	
Antiulcer	Martindale's 29th
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Detoxicant	Merck 11th Edition
Glutathionergic	
Ophthalmic-Antialkali	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide	

CYSTINE Seed 1242.0 4000.0 0.59 *

Activities (2)	
Adjuvant	Merck 11th Edition
Antihomocystinuric	Martindale's 29th

CYTOCHROME-C	Plant	--	--	*
DEC-TRANS-2-EN-1-AL	Shoot	--	--	*
DECANAL	Shoot	--	--	*
DECHLORO-DIAZEPAM	Seed	--	--	*
DHURRIN	Sprout Seedling	--	--	*

Activities (1)				
Cyanogenic				
DIAMINO-PROPANE	Sprout Seedling	--	--	*
DIAZEPAM	Sprout Seedling	--	--	*

Activities (14)	
Amnesigenic	Martindale's 29th
Anesthetic 1-40 mg/man	Martindale's 29th
Antialcoholic	Martindale's 29th
Antianorectic 21 mg/kg orl mus	
Antianorectic 3.7 mg/kg orl rat	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.
Anticonvulsant 2.5 mg/kg orl mus	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.
Antiepileptic	Martindale's 29th
Antimyocarditic	Martindale's 29th
Antischizophrenic 5 mg/man/3x/day	Martindale's 29th
Antitetanic	Martindale's 29th
Antitorticollic 5-10 mg/man/ivn	Martindale's 29th
Anxiolytic 6-30 mg/man/day/orl	Martindale's 29th
Myorelaxant 2-15 mg/man/day/orl	Martindale's 29th
Sedative 40-200 ug/lg/3- 4x/day	Martindale's 29th

DIGALACTOSYL-DIGLYCERIDE	Seed	--	--		*
DIHYDROERGOSTEROL	Seed	--	--		*
ERGOSTEROL	Seed	--	12.0		*

Activities (5)	
Antiangiogenic	
Antiflu	
Antitumor	
Antiviral	
Pesticide	

ESTERASE	Sprout Seedling	--	--		*
ETHYL-BETA-D-FRUCTOFURANOSIDE	Seed	--	--		*
FAT	Seed	8000.0	39000.0	-1.19	*
FAT	Plant	10000.0	30000.0	-0.32	*
FERULIC-ACID	Seed	15.0	32.0	-0.39	*

Activities (61)	
Allelopathic	Holappa, L.D., and Blum*. U. 1991. Effects of Exogenously Applied Ferulic Acid, a Potential Allelopathic Compound, on Leaf Growth, Water Utilization, and Endogenous Abscisic Acid Levels of Tomato, Cucumber, and Bean. J. of Chemical Ecology, 17(5): 865.
Analgesic	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 69.
Antiaggregant	Ozaki, Y. and Ma, J-P. 1989. Inhibitory Effects of Tetramethylpyrazine and Ferulic Acid on Spontaneous Movement of Rat Uterus in Situ. Chem. Pharm. Bull. 38(6): 1620-1623, 1990.
Antiallergic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Antiarrhythmic	
Antibacterial	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Anticancer (Colon)	
Anticancer (Forestomach)	
Anticancer (Liver)	
Anticancer (Skin)	
Anticarcinogenic	
Antidysmenorrhoeic	
Antiestrogenic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antihepatotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiherpetic	
Antiinflammatory	Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.
Antileukemic IC50=25- 56 ug/ml	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46.
Antimitotic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antimutagenic	Ki Soon Rhee. Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. Phenolic Compounds in Food and Their Effects on Health, Ch.18.

Antineoplastic (Stomach)	
Antinitrosaminic	Ki Soon Rhee. Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. Phenolic Compounds in Food and Their Effects on Health, Ch.18.
Antioxidant 3,000 uM	
Antioxidant IC51=200 ppm	
Antioxidant 1/3 quercetin	
Antioxidant 1/2 BHA	
Antioxidant EC50=9-15 ug/ml	
Antiradicular EC50=9-15 ug/ml	
Antiradicular IC50=116-124 uM	
Antiserotonin	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antispasmodic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Antithrombic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antitumor (Colon)	
Antitumor (Forestomach)	
Antitumor (Liver)	
Antitumor (Skin)	
Antitumor-Promoter IC46=10 uM	Cancer Research, 48: 5941.
Antiviral	Vlietinck, A.J. and Dommissie, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.
Arteriodilator	Ozaki, Y. and Ma, J-P. 1989. Inhibitory Effects of Tetramethylpyrazine and Ferulic Acid on Spontaneous Movement of Rat Uterus in Situ. Chem. Pharm. Bull. 38(6): 1620-1623, 1990.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Cardiac	Ozaki, Y. and Ma, J-P. 1989. Inhibitory Effects of Tetramethylpyrazine and Ferulic Acid on Spontaneous Movement of Rat Uterus in Situ. Chem. Pharm. Bull. 38(6): 1620-1623, 1990.
Cholagogue	Pharmazie, 46: 156, 1991.
Choleretic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Fungicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Hepatoprotective	Mills, Simon and Bone, Kerry. 2000. Phytotherapy. Churchill Livinston, Edinburgh.
Hepatotropic	
Herbicide	Angewandte Botanik 68(5/6)=1994. Page 195.
Hydrocholorectic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Hypolipidemic	
Immunostimulant	Economic & Medicinal Plant Research, 1: 124.
Insectifuge	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
Metal-Chelator	McEvily, A.J., Iyengar, R., and Gross, A.T. Inhibition of Polyphenol Oxidase by Phenolic Compounds. Phenolic Compounds in Food and Their Effects on Health, Ch.25.
Ornithine-Decarboxylase-Inhibitor	Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.
Pesticide	
Phagocytotic	
Preservative	Merck 11th Edition
Prostaglandigenic	
Prostaglandin-Synthesis-Inhibitor 0.58-3.2 mM	Xu, L. N., Yu, W. G., Tian, J. Y., Liu, Q. Y. 1990. Effect of Sodium Ferulate on Arachidonic Acid Metabolism. Yao Hsueh Hsueh Pao, 25(6): 412-416.
Sunscreen	Chemical Marketing Reporter; a weekly tabloid, 9/10/92.
Uterosedative 30-100 mg/kg ivn rat	Ozaki, Y. and Ma, J-P. 1989. Inhibitory Effects of Tetramethylpyrazine and Ferulic Acid on Spontaneous Movement of Rat Uterus in Situ. Chem. Pharm. Bull. 38(6): 1620-1623, 1990.

FIBER Seed 3000.0 62000.0 -0.57 *

Activities (15)					
Angiotensin-Receptor-Blocker					
Antidiabetic					
Antihypertensive					
Antiobesity					
Antitumor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Antiulcer	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Beta-Blocker					
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				
Cardioprotective					
Diuretic					
Hypocholesterolemic					
Hypotensive 10 g/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Hypouricemic					
Laxative					
Vasodilator					

FIBER Plant 23300.0 421000.0 1.47 *

Activities (15)					
Angiotensin-Receptor-Blocker					
Antidiabetic					
Antihypertensive					
Antiobesity					
Antitumor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Antiulcer	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Beta-Blocker					
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				
Cardioprotective					
Diuretic					
Hypocholesterolemic					
Hypotensive 10 g/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Hypouricemic					
Laxative					
Vasodilator					

FOLACIN Seed -- 0.9 -0.7 *

Activities (15)					
AntiSpina-Bifida	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.				
Antianemic 5-20 mg/man/day					
Anticervicaldysplasic 8-30 mg/wmn/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Anticheilitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.				
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.				
Antigingivitic 2-5 mg/day/man	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Antiglossitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.				
Antimyelotoxic 5 mg/day/orl/man	Martindale's 29th				
Antineuropathic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.				
Antiperiodontitic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Antiplateau	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Antipsychotic	Martindale's 29th				
Hematopoietic	Merck 11th Edition				
Uricosuric	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Xanthine-Oxidase-Inhibitor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				

FRUCTOSE Seed -- 600.0 -0.81 *

Activities (8)	
Antialcoholic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antidiabetic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antihangover	
Antiketotic	Merck 11th Edition
Antinauseant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Laxative	
Neoplastic	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Sweetener 2 x glucose	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

FRUCTOSYLRAFFINOSE	Seed	--	--		*
GADUSEN	Seed	--	--		*
GAMMA-DIHYDROSITOSTEROLFERULIC-ACID-ESTER	Seed	--	--		*
GAMMA-TOCOPHEROL	Oil	39.0	527.0	0.59	*

Activities (14)	
AntiCRP	
Antiatherosclerotic	
Anticancer	
Antiinflammatory	
Antioxidant 10-15 ug/g	
Antioxidant IC43=10 uM	
Antiprostaglandin	
Antitumor	
Cardioprotective	
Cyclooxygenase-Inhibitor	
Hypocholesterolemic	
NO-Inhibitor	
Natriuretic	
PKC-Inhibitor	

GENTISIC-ACID	Seed	2.0	4.0	-1.27	*
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Activities (8)	
Analgesic	Merck 11th Edition
Antibacterial	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antifeedant	
Antiinflammatory	Merck 11th Edition
Antioxidant 1/3 BHA	
Antirheumatic	Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.
Antiviral	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide	

GIBBERELLINS	Seed	--	--		*
GLIADIN	Seed	--	--		*
GLOBULIN	Seed	60000.0	100000.0	1.0	*
GLUCODIFRUCTOSE	Seed	--	4100.0		*
GLUCOFRACTANS	Seed	--	10300.0		*
GLUCOSE	Seed	--	900.0	-0.56	*

Activities (7)						
Acetylcholinergic						
Antidemic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.					
Antihepatotoxic	Merck 11th Edition					
Antiketotic	Merck 11th Edition					
Antivaricose	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.					
Hyperglycemic	Merck 11th Edition					
Memory-Enhancer	Science News, 138: 189, 1990.					
GLUCOSE-6-PHOSPHATE-DEHYDROGENASE		Sprout Seedling	--	--	*	
GLUTAMATE-DEHYDROGENASE		Sprout Seedling	--	--	*	
GLUTAMIC-ACID		Seed	39000.0	63000.0	0.9	*
Activities (8)						
Antialkali? 500-1,000 mg/day/orl/man	Martindale's 29th					
Antiepileptic						
Antihyperammonemic	Martindale's 29th					
Antilithic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).					
Antiprostatisic 125-250 mg 3 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.					
Antiretardation	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.					
Anxiolytic	Merck 11th Edition					
Neurotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.					
GLUTAMIC-ACID-DECARBOXYLASE		Seed	--	--	*	
GLUTAMIC-DEHYDROGENASE		Seed	--	--	*	
GLUTATHIONE-REDUCTASE		Seed	--	--	*	
GLUTENIN		Seed	300000.0	400000.0		*
GLYCERIN		Seed	--	--	*	
Activities (1)						
FLavor FEMA 500-400,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry					
GLYCEROPHOSPHATASE		Seed	--	--	*	
GLYCINE		Seed	4830.0	5635.0	-0.77	*
Activities (12)						
Antiacid	Martindale's 29th					
Antialdosteronic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).					
Antidote (Hypoglycin-A)	Martindale's 29th					
Antiencephalopathic	Martindale's 29th					
Antigastritic	Martindale's 29th					
Antiprostatisic 125-250 mg 3 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.					
Antipruritic	Merck 11th Edition					
Antisickling	Ekeke, G.I. and Shode, F.O. 1988. Phenylalanine is the Predominant Antisickling Agent in Cajanus cajan Seed Extract. Planta Medica 56(1): 41, 1990.					
Antiulcer	Martindale's 29th					
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.					
Neuroinhibitor	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.					
Uricosuric						
GLYCOLATE-OXIDASE		Plant	--	--	*	
GRAMINE		Leaf	--	--	*	

Activities (5)					
Antiarrhythmic	Cardiology from Nature.(by Authur Hollman, s.d.) Telectronics Pacing System, London. 13 pp.				
Antifeedant					
Insecticide IC50=4 mM	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.				
Pesticide					
Vasopressor					

GUANINE	Petiole	--	--		*
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Activities (1)					
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				

GUANOSINE	Petiole	--	--		*
HEMICELLULOSE-B	Hay	--	--		*
HEPT-TRANS-2-EN-1-AL	Shoot	--	--		*
HEPTAN-1-OL	Shoot	--	--		*
HEPTANAL	Shoot	--	--		*
HEX-TRANS-2-EN-1-AL	Shoot	--	--		*
HEX-TRANS-2-EN-1-OL	Shoot	--	--		*
HEXAN-1-AL	Shoot	--	--		*
HEXOKINASE	Seed	--	--		*
HEXOSE-DIPHOSPHATASE	Seed	--	--		*
HISTIDINE	Seed	1000.0	6000.0	-0.03	*

Activities (7)					
Antiarteriosclerotic					
Antinephritic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antioxidant					
Antiulcer					
Antiremic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Oxidant					

HYDROXAMIC-ACID	Leaf	--	--		*
INOSITOL	Seed	--	--		*

Activities (8)					
Antiallopecic					
Anticirrhotic					
Antidiabetic?	Martindale's 29th				
Antineuropathic? 2 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Cholesterolytic 2,000 mg/man/day					
Lipotropic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Sweetener	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Ubiquit	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.				

IRON	Seed	10.0	120.0	-0.14	*
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Activities (6)					
Antiakathisic	Martindale's 29th				
Antianemic	Martindale's 29th				
Anticanker					
Anticheilitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.				
Antimenorrhagic 100 mg/day/wmn/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Prooxidant					

IRON	Plant	70.0	770.0	0.17	*
Activities (6)					
Antiakathisic	Martindale's 29th				
Antianemic	Martindale's 29th				
Anticanker					
Anticheelitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.				
Antimenorrhagic 100 mg/day/wmn/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).				
Prooxidant					
ISOCHLOROGENIC-ACID	Seed	--	1.0	-1.0	*
Activities (4)					
Antioxidant	Phenolic Compounds in Food and Their Effects on Health, 64.				
Antiseptic	J. Nat. Prod. 46(5).				
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				
Pesticide					
ISOCITRATE-DEHYDROGENASE	Sprout Seedling	--	--		*
ISOFERULIC-ACID	Seed	1.0	5.0	-0.7	*
Activities (4)					
Antiedemic					
Antiinflammatory					
Antioxidant IC50=189-193 uM					
Hypothermic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.				
ISOLEUCINE	Seed	4000.0	12000.0	0.19	*
Activities (3)					
Antiencephalopathic?	Martindale's 29th				
Antipellagric	Martindale's 28th				
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
ISOLEUCINE	Plant	10000.0	17000.0	1.26	*
Activities (3)					
Antiencephalopathic?	Martindale's 29th				
Antipellagric	Martindale's 28th				
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
ISOSCHAFTOSIDE	Plant	--	--		*
KILOCALORIES	Seed	3400.0	5221.0	0.28	*
LAMINARASE	Seed	--	--		*
LAURIC-ACID	Seed	--	--		*
Activities (7)					
Antibacterial					
Antioxidant IC71=60					
Antiviral					
COX-1-Inhibitor IC40=100					
COX-2-Inhibitor IC20=100					
Candidicide					
Hypercholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)				
LEAD	Seed	--	1.653	-0.23	*
LECITHIN	Seed	--	--		*

Activities (20)

AntiTourette's 20-50 g/man/day/orl	Martindale's 28th
Antialzheimeran 40-100 g/man/day/orl	Martindale's 28th
Antiataxic	Martindale's 28th
Anticirrhotic	
Antidementia	Martindale's 29th
Antidyskinetic 40-80 g/man/day/orl	Martindale's 28th
Antieczemic	
Antilithic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antimanic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antimorphinistic	
Antioxidant Synergist	Martindale's 29th
Antipsoriac	
Antisclerodermic	
Antiseborrheic	
Antisprue	
Antitumor (Lung)	
Cholinergic	Martindale's 28th
Hepatoprotective	
Hypocholesterolemic 20-30 g/man/day	
Lipotropic	Merck 11th Edition

LEUCINE Seed 8000.0 18000.0 0.09 *

Activities (2)

Antiencephalopathic	Martindale's 29th
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

LEUCINE Plant 20000.0 26000.0 1.34 *

Activities (2)

Antiencephalopathic	Martindale's 29th
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

LICHENASE Seed -- -- *

LIGNOCERIC-ACID Sprout Seedling -- -- *

Activities (1)

Antihepatotoxic

LINOLEIC-ACID Plant -- -- *

Activities (27)

5-Alpha-Reductase-Inhibitor

AntiMS	Economic & Medicinal Plant Research, 6: 189.
Antiacne	
Antialopecic	
Antianaphylactic	Economic & Medicinal Plant Research, 6: 189.
Antiandrogenic	
Antiarteriosclerotic	
Antiartritic	Economic & Medicinal Plant Research, 6: 189.
Anticoronary	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antieczemic	Economic & Medicinal Plant Research, 6: 189.
Antifibrinolytic	Economic & Medicinal Plant Research, 1: 53.
Antigranular	
Antihistaminic	Economic & Medicinal Plant Research, 6: 189.
Antiinflammatory IC50=31 uM	
Antileukotriene-D4 IC50=31 uM	
Antimenorrhagic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiprostatic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Carcinogenic	Science News, 146: 421.
Comedolytic	
Hepatoprotective	
Hypocholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
Immunomodulator	Economic & Medicinal Plant Research, 6: 189.
Insectifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Metastatic	Science News, 146: 421.
Nematicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Propepic	

LINOLENIC-ACID	Plant	--	--	*
LIPASE	Seed	--	--	*
LIPOXIDASE	Seed	--	--	*
LUTEIN	Plant	--	--	*

Activities (15)

Antiatherosclerotic	
Anticancer (Breast)	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from Vaccinium myrtillus (Bilberry) Fruits and Cell Cultures. Plant Sci., 131(1): 95-103.
Antimaculitic	Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY.
Antinyctalopic	Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY.
Antioxidant	
Antiproliferant	Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY.
Antiradicular	
Antiretinitic Optometry	
Antitumor (Breast)	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from Vaccinium myrtillus (Bilberry) Fruits and Cell Cultures. Plant Sci., 131(1): 95-103.
Antitumor (Colon)	
Colorant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Prooxidant 5-40 ug/g	
Quinone-Reductase-Inducer 2.5 ug	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from Vaccinium myrtillus (Bilberry) Fruits and Cell Cultures. Plant Sci., 131(1): 95-103.
Retinoprotectant Optometry	
Ubiquiot	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

LYSINE	Seed	2000.0	9000.0	-0.42	*
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Activities (4)	
Antialkalotic	Martindale's 29th
Antiherpetic 0.5-3 g/day	
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Hypoarginanemic 250 mg/kg	Martindale's 29th

LYSINE Plant 15000.0 18000.0 0.98 *

Activities (4)	
Antialkalotic	Martindale's 29th
Antiherpetic 0.5-3 g/day	
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Hypoarginanemic 250 mg/kg	Martindale's 29th

LYSOLECITHIN Seed -- -- *

Activities (1)	
Immunostimulant 0.01-1 ug/ml	

MAGNESIUM Plant 300.0 7000.0 0.91 *

Activities (65)	
AntiCFS	
AntiLyme 400-1,000 mg	
AntiMS	
AntiPMS 400-800 mg/day/wmn/orl	
AntiPMS 400-800 mg/day/wmn orl	
AntiRaynaud's 280-350 mg/day	
Antiaggregant 400 mg/day	
Antialcoholic	
Antianginal 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antianorectic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antianxiety 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiarrhythmic 400 mg/day	
Antiarthritic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiasthmatic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiatherosclerotic 400 mg/day	
Anticephalagic	
Anticlimacteric 500-750 mg/day	
Anticonvulsant	Facciola, S. 1998. Cornucopia - A Source Book of Edible Plants. Kampong Publications, Vista CA. 713 pp.
Anticoronary 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidiabetic 400-800 mg/man/day	
Antidysmenorrheic 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidometriotic 500 mg/day	
Antienterotic	
Antiepileptic 450 mg/day	
Antifatigue	
Antifibromyalgic 200-300 mg 3x/day	
Antigastrotic	
Antiglaucomic	
Antihyperkinetic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihypertensive	
Antihypoglycemic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiinflammatory 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinsomniac	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antilithic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antimastalgic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Antimenopausal 500-750 mg/day	
Antimigraine 200 mg/day/man	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antimitral-valve-prolapse	
Antinephrolytic	
Antineurotic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiosteoporotic 500-1,000 mg/day/wmn/orl	
Antiplateau 500-1,000 mg/day	
Antiretinopathic 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antispasmodic	
Antispasmophilic 500 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antistress 500-750 mg/day	
Antistroke 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antisyndrome-X 400 mg/man/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Anxiolytic 500-750 mg/day	
CNS-Depressant	Facciola, S. 1998. Cornucopia - A Source Book of Edible Plants. Kampong Publications, Vista CA. 713 pp.
Calcium-Antagonist	
Cardioprotective	
Diuretic	
Hypocholesterolemic 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Hypotensive 260-500 mg/day	
Immunomodulator	
Insulinogenic 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Laxative 300-500 mg/day	
Litholytic	
Myorelaxant 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Neurotransmitter	
Tranquilizer 500-750 mg/day	
Uterorelaxant 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Vasodilator	

MAGNESIUM Seed 530.0 3500.0 0.22 *

Activities (65)

AntiCFS	
AntiLyme 400-1,000 mg	
AntiMS	
AntiPMS 400-800 mg/day/wmn/orl	
AntiPMS 400-800 mg/day/wmn orl	
AntiRaynaud's 280-350 mg/day	
Antiaggregant 400 mg/day	
Antialcoholic	
Antianginal 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antianorectic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antianxiety 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiarrhythmic 400 mg/day	
Antiarthritic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiasthmatic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiatherosclerotic 400 mg/day	
Anticephalagic	
Anticlimacteric 500-750 mg/day	
Anticonvulsant	Facciola, S. 1998. Cornucopia - A Source Book of Edible Plants. Kampong Publications, Vista CA. 713 pp.
Anticoronary 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidiabetic 400-800 mg/man/day	
Antidysmenorrheic 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiendometriotic 500 mg/day	
Antienterotic	
Antiepileptic 450 mg/day	

Antifatigue	
Antifibromyalgic 200-300 mg 3x/day	
Antigastrotic	
Antiglaucomic	
Antihyperkinetic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihypertensive	
Antihypoglycemic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiinflammatory 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antisomniac	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antilithic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antimastalgic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antimenopausal 500-750 mg/day	
Antimigraine 200 mg/day/man	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antimitral-valve-prolapse	
Antinephrolytic	
Antineurotic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiosteoporotic 500-1,000 mg/day/wmn/orl	
Antiplatelet 500-1,000 mg/day	
Antiretinopathic 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antispasmodic	
Antispasmodophilic 500 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antistress 500-750 mg/day	
Antistroke 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antisyndrome-X 400 mg/man/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Anxiolytic 500-750 mg/day	
CNS-Depressant	Facciola, S. 1998. Cornucopia - A Source Book of Edible Plants. Kampong Publications, Vista CA. 713 pp.
Calcium-Antagonist	
Cardioprotective	
Diuretic	
Hypocholesterolemic 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Hypotensive 260-500 mg/day	
Immunomodulator	
Insulinogenic 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Laxative 300-500 mg/day	
Litholytic	
Myorelaxant 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Neurotransmitter	
Tranquilizer 500-750 mg/day	
Uterorelaxant 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Vasodilator	

MANGANESE Seed -- 86.0 0.4 *

Activities (14)

AntiPMS	
Antialcoholic	Forest H. Nielsen, USDA, Grand Forks, various publications.
Antianemic	Martindale's 28th
Antiarthritic	
Antidiabetic 3-5 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidiabetic 10-30 mg/man/day	
Antidiscotic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidyskinetic	Martindale's 28th
Antiepileptic 450 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiosteoporotic	
Antiototic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antioxidant	
Antisyndrome-X 10-30 mg/man/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Hypoglycemic 10-30 mg/man/day	

MANGANESE Plant -- 105.0 0.06 *

Activities (14)

AntiPMS
 Antialcoholic Forest H. Nielsen, USDA, Grand Forks, various publications.
 Antianemic Martindale's 28th
 Antiarthritic
 Antidiabetic 3-5 mg/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
 Antidiabetic 10-30 mg/man/day
 Antidiscotic Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
 Antidyskinetic Martindale's 28th
 Antiepileptic 450 mg/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
 Antiosteoporotic
 Antiototic Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
 Antioxidant
 Antisyndrome-X 10-30 mg/man/day Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reverse insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
 Hypoglycemic 10-30 mg/man/day

MANNOSE Seed -- -- *

Activities (3)

AntiUTI
 Antiadhesive
 Anticystitic 0.25-1 tsp 3-4 x/day orl man

MERCURY Seed -- 0.079 -0.26 *

Activities (1)

Nephrotoxic Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

METHIONINE Seed 1000.0 4000.0 -0.08 *

Activities (15)

Anticataract Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
 Antidote (Acetaminophen) 10 g/16hr/man/orl Martindale's 29th
 Antidote (Paracetamol) 10 g/16hr/man/orl Martindale's 29th
 Antieczemic
 Antihepatotic Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
 Antioxidant
 Antiparkinsonian 1-5 g/day Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
 Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
 Emetic Martindale's 29th
 Essential Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
 Glutathionigenic Martindale's 29th
 Hepatoprotective
 Lipotropic Merck 11th Edition
 Urine-Acidifier 200 mg/3x/day/man/orl Martindale's 28th
 Urine-Deodorant Martindale's 29th

MONOGALACTOSYL-DIGLYCERIDE Seed -- -- *

MYRISTIC-ACID Seed -- -- *

Activities (6)	
Antioxidant IC71=60	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cosmetic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Hypercholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
Lubricant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Nematicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.

N-DEMETHYL-DIAZEPAM	Seed	--	--		*
NEOKETOSE	Seed	--	--		*
NIACIN	Seed	15.0	117.0	2.22	*

Activities (39)	
Allergenic	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
AntiLyme 50 mg/day	
AntiMeniere's	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
AntiRaynaud's 1,500-4,000 mg/day	
Antiacrodynic	
Antiallergic 50 mg/2x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antialzheimeran	
Antiamblyopic	
Antianginal	
Anticataract	
Antichilblain	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Anticonvulsant 3 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidementia	
Antidermatitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidiabetic	
Antidysphagic	
Antiepileptic 3 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antihangover 50 mg	
Antihistaminic 50 mg 2x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antihyperactivity 1.5-6 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinsomnic 1 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antineuralgic	
Antiparkinsonian 100 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antipellagric	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiscotomic	
Antispasmodic 100 mg 2x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antivertigo	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cardioprotective	
Circulotonic	
Fibrinolytic	
Hepatoprotective	
Hepatotoxic	
Hypocholesterolemic 50-100 mg 3x/day	
Hypoglycemic	
Hypolipidemic	
Sedative	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Serotonergic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Vasodilator	Martindale's 29th

NIACIN	Plant	20.0	73.0	-0.05	*
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Activities (39)	
Allergenic	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
AntiLyme 50 mg/day	
AntiMeniere's	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
AntiRaynaud's 1,500-4,000 mg/day	
Antiacrodynic	
Antiallergic 50 mg/2x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antialzheimeran	
Antiamblyopic	
Antianginal	
Anticataract	
Antichilblain	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Anticonvulsant 3 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidementia	
Antidermatitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidiabetic	
Antidysphagic	
Antiepileptic 3 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antihangover 50 mg	
Antihistaminic 50 mg 2x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antihyperactivity 1.5-6 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinsomnic 1 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antineuralgic	
Antiparkinsonian 100 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antipellagric	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiscotomic	
Antispasmodic 100 mg 2x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antivertigo	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cardioprotective	
Circulotonic	
Fibrinolytic	
Hepatoprotective	
Hepatotoxic	
Hypocholesterolemic 50-100 mg 3x/day	
Hypoglycemic	
Hypolipidemic	
Sedative	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Serotonergic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Vasodilator	Martindale's 29th

NICKEL Seed -- 2.37 -0.46 *

Activities (3)	
Antiadrenalinic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anticirrhotic?	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Insulin-Sparing	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
NON-CIS-3-EN-1-OL	Shoot -- -- *
NON-TRANS-2-EN-1-AL	Shoot -- -- *
NONA-CIS-3,CIS-6-DIEN-1-OL	Shoot -- -- *
NONA-TRANS-2,CIS-6-DIEN-1-AL	Shoot -- -- *
NONA-TRANS-2,CIS-6-DIEN-1-OL	Shoot -- -- *
NONAN-1-OL	Shoot -- -- *
NONANAL	Shoot -- -- *
NUCLEOTIDASE	Seed -- -- *
O-COUMARIC-ACID	Seed 5.0 10.0 *

Activities (4)					
Allelopathic					
Antibacterial		Pharmazie, 46: 156, 1991.			
Fungicide		Pharmazie, 46: 156, 1991.			
Pesticide					
OCHRATOXIN-A	Seed	--	--		*
OCT-TRANS-2-EN-1-AL	Shoot	--	--		*
OCTAN-1-OL	Shoot	--	--		*
OLEIC-ACID	Plant	--	--		*
Activities (18)					
5-Alpha-Reductase-Inhibitor					
Allergenic					
Alpha-Reductase-Inhibitor					
Anemiagenic					
Antiallopecic					
Antiandrogenic					
Antiinflammatory IC50=21 uM					
Antileukotriene-D4 IC50=21 uM					
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				
Choleretic 5 ml/man					
Dermatitigenic					
Flavor FEMA 1-30	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry				
Hypocholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)				
Insectifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.				
Irritant	Merck 11th Edition				
Percutaneostimulant	Seki, T., Toeda, C., Kawaguchi, T., Juni, K., Sugibayashi, K., and Morimoto, Y. 1990. Enhanced Transdermal Delivery of Zidovudine in Rats and Human Skin. Chem. Pharm. Bull. 38(11): 3086-3089, 1990.				
Perfumery	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry				
Propecic					
ORTHOFERULIC-ACID	Seed	--	--		*
OXALACETIC-CARBOXYLASE	Seed	--	--		*
OXALIC-ACID	Fruit	--	111.0	-0.3	*
Activities (9)					
Acaricide					
Antiseptic					
CNS-Paralytic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Fatal	Martindale's 29th				
Hemostatic	Merck 11th Edition				
Irritant					
Pesticide					
Renotoxic	Merck 11th Edition				
Varroacide					
P-COUMARIC-ACID	Seed	17.0	25.0	-0.47	*

Activities (25)

Aldose-Reductase-Inhibitor 4 ug/ml (weak activity)	Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. Sankyo Kenkyusho Nempo, 43: 99-110.
Allelopathic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antibacterial	Pharmazie, 46: 156, 1991.
Anticlastogen	
Antifertility	
Antihepatotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antileukemic IC50=25-56 ug/ml	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46.
Antinitrosaminic	Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY.
Antioxidant IC24=30 ppm	
Antioxidant 1/3 BHA	
Antiperoxidant IC50=>100 uM	Planta Medica, 57: A54, 1991.
Antiseptic	
Antispasmodic	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Antitumor	
Cancer-Preventive	
Chemopreventive	
Choleretic	
Cytotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Diaphoretic?	Lawrence Review of Natural Products, Dec-90.
Fungicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Lipoxygenase-Inhibitor IC11=5 mM	Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690.
Pesticide	
Prostaglandigenic	
Prostaglandin-Synthesis-Inhibitor	
Tyrosinase-Inhibitor ID50=3,650 uM	

P-HYDROXY-BENZOIC-ACID

Seed

5.0

10.0

0.24

*

Activities (13)

Antibacterial	
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antioxidant	Phenolic Compounds in Food and Their Effects on Health, 65.
Antiradicular	
Antisickling 10.5 ug/ml	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Fungistat EC50=607 ug/ml	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Immunosuppressant	
Pesticide	
Phytoalexin	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Prostaglandigenic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Secretagogue	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Ubiquitot	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

PALMITIC-ACID

Plant

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Activities (13)					
5-Alpha-Reductase-Inhibitor					
Antiallopecic					
Antiandrogenic					
Antifibrinolytic	Economic & Medicinal Plant Research, 1: 53.				
Antioxidant IC40=60					
FLavor FEMA 1	Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry				
Hemolytic	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.				
Hypercholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)				
Lubricant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Nematicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.				
Pesticide					
Propepic					
Soap	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				

PALMITOLEIC-ACID	Plant	--	--		*
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Activities (2)					
5-Alpha-Reductase-Inhibitor					
Soap	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				

PANTOTHENIC-ACID	Seed	6.8	20.0	0.34	*
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Activities (11)					
Antiallergic 100-500 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antiarthritic 500-2,000 mg/day					
Anticephalagic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Anticlaudificant?	Martindale's 29th				
Antidermatitic	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.				
Antifatigue	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antihypercholesterolemic 300 mg/meal	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antiileus?	Martindale's 29th				
Antiinsomniac?	Martindale's 29th				
Antirheumatitic?	Martindale's 29th				
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				

PANTOTHENIC-ACID	Plant	9.7	37.0	0.43	*
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Activities (11)					
Antiallergic 100-500 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antiarthritic 500-2,000 mg/day					
Anticephalagic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Anticlaudificant?	Martindale's 29th				
Antidermatitic	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.				
Antifatigue	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antihypercholesterolemic 300 mg/meal	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antiileus?	Martindale's 29th				
Antiinsomniac?	Martindale's 29th				
Antirheumatitic?	Martindale's 29th				
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				

PECTINS	Seed	--	10100.0	0.51	*
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PENTADECA-TRANS-2,CIS-4-DIENAL	Shoot	--	2.2		*
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PENTOSANS	Seed	63000.0	83000.0	0.09	*
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PEPTIDASE	Seed	--	--		*
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PHENOLICS	Seed	831.0	1662.0	-1.0	*
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PHENYLALANINE	Seed	7452.0	8694.0	-0.34	*
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Activities (7)	
AntiADD 587 mg/day/orl	Martindale's 29th
Antidepressant 50-4,000 mg/day/man	
Antiparkinsonian 200-500 mg/day/man	Martindale's 28th
Antisickling 690 ug/ml	
Antivilitigic 100 mg/kg/day/orl/man	Martindale's 29th
Monoamine-Precursor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Tremorigenic 1,600-12,600 mg/man/day	Martindale's 28th

PHENYLALANINE	Plant	4000.0	11000.0	0.71	*
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Activities (7)	
AntiADD 587 mg/day/orl	Martindale's 29th
Antidepressant 50-4,000 mg/day/man	
Antiparkinsonian 200-500 mg/day/man	Martindale's 28th
Antisickling 690 ug/ml	
Antivilitigic 100 mg/kg/day/orl/man	Martindale's 29th
Monoamine-Precursor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Tremorigenic 1,600-12,600 mg/man/day	Martindale's 28th

PHOSPHODIESTERASE	Seed	--	--		*
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PHOSPHOENOL-PYRUVATE-CARBOXYLASE	Leaf	--	--		*
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PHOSPHOGLUCONIC-DEHYDROGENASE	Plant	--	--		*
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PHOSPHOMONOESTERASE	Seed	--	--		*
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PHOSPHORUS	Seed	800.0	6800.0	0.38	*
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Activities (4)	
Antiosteoporotic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anxiolytic	
Immunostimulant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Osteogenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

PHOSPHORUS	Plant	400.0	7200.0	1.74	*
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Activities (4)	
Antiosteoporotic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anxiolytic	
Immunostimulant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Osteogenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

PHYLLOQUINONE	Leaf	--	--		*
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Activities (5)	
Antihemorrhagic 1 mg ims man	Martindale's 28th
Fungicide	
Hypotensive	
Pesticide	
Toxic	Martindale's 28th

PHYTASE	Seed	--	--		*
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PHYTIC-ACID	Seed	--	48500.0	2.35	*
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Activities (9)	
Antianggregant	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Anticancer	
Antioxidant	
Antitumor	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Fungicide	
Hypocalcemic Sodium phytate	Merck 11th Edition
Hypocholesterolemic	
Hypolipidemic	

PHYTIC-PHOSPHORUS	Seed	2370.0	3760.0		*
PHYTOSTERYL-6-O-ACYL-BETA-D-GLUCOPYRANOSIDE	Seed	--	--		*
POTASSIUM	Seed	940.0	7900.0	-0.41	*

Activities (14)	
Angiotensin-Receptor-Blocker	
Antiarrhythmic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antifatigue	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihypertensive	
Antispasmodic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antistroke	
Anxiolytic	
Beta-Blocker	
Cardioprotective 3,000-5,000 mg	
Cardiotoxic 18,000 mg/man/day	
Diuretic	
Hypotensive	
Vasodilator	

POTASSIUM	Plant	1200.0	43500.0	1.51	*
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Activities (14)	
Angiotensin-Receptor-Blocker	
Antiarrhythmic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antifatigue	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihypertensive	
Antispasmodic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antistroke	
Anxiolytic	
Beta-Blocker	
Cardioprotective 3,000-5,000 mg	
Cardiotoxic 18,000 mg/man/day	
Diuretic	
Hypotensive	
Vasodilator	

PROLAMINE	Seed	--	--		*
PROLINE	Shoot	--	12.0	-0.71	*
PROLINE	Seed	17526.0	20447.0	1.79	*
PROLINE	Root	--	173.0	-1.19	*
PROTEIN	Seed	80000.0	380000.0	1.3	*
PROTEIN	Plant	38000.0	94000.0	-0.65	*
PROTEINASE	Seed	--	--		*
PROTocatechuic-ACID	Seed	3.0	6.0	1.0	*

Activities (43)

Allergenic	
Alpha-Glucosidase-Inhibitor	
AntiLegionella	
Antiarrhythmic	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 407.
Antiasthmatic	
Antibacterial	Lamikanra, A., Ogundaini, A.O., and Ogungbamila*, F.O. Antibacterial Constituents of Alchornea cordifolia Leaves. Phytotherapy Research 4(5): 198.
Anticlastogen	
Antihepatotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiherpetic	
Antiinflammatory	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiischemic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antileukemic	
Antimelanogenic ID60=0.5 uM/ml	
Antimutagenic	
Antiophidic	Economic & Medicinal Plant Research, 5: 363.
Antioxidant 2/3 quercetin	
Antioxidant 10 x alpha-tocopherol	
Antioxidant 1/2 BHT	
Antiperoxidant IC50=>100 uM	Planta Medica, 57: A54, 1991.
Antiperoxidant IC75=200 ug/ml	
Antiradicular	
Antiseptic	
Antispasmodic EC50=4.6-17 uM	Ortiz de Urbina, J.J., Martin, M.L., Sevilla, M.A., Montero, M.J., Carron, R., and San Roman, L. Antispasmodic Activity on Rat Smooth Muscle of Polyphenol Compounds Caffeic and Protocatechic Acids. Phytotherapy Research 4(2): 73, 1990.
Antitumor (Colon)	
Antitumor (Mouth)	
Antitumor (Skin)	
Antitussive	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 200.
Antiviral	
Apoptotic	
Carcinogenic	
Cardioprotective	
Chemopreventive 100 ppm orl rat	
Fungicide 500 ug/ml	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.
Glutathione- Depleting	
Hepatotoxic	
Immunostimulant	Economic & Medicinal Plant Research, 1: 124.
Nephrotoxic	
Pesticide	
Phagocytotic	Economic & Medicinal Plant Research, 1: 124.
Prostaglandigenic	
Secretagogue	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Tyrosinase-Inhibitor ID60=0.5 uM/ml	
Ubiquit	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

PUROTHIONIN-A	Seed	--	--		*
PUTRESCINE	Sprout Seedling	--	--		*
PYRIDINE-NUCLEOTIDE-OXIDASE	Seed	--	--		*
PYRIDOXINE	Seed	2.6	13.0	1.67	*

Activities (43)

Analgasic 50 mg day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
AntiMSG-Sensitivity 50 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
AntiMorning-Sickness	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
AntiPMS 100 mg/day/orl/wmn	Martindale's 29th
AntiPMS 50 mg/day	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
AntiTMJ 50 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiacne 50 mg/day	
Antiaaggregant 40 mg/day	
Antianemic 50-400 mg/man/day	
Antiasthmatic 100-200 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiatherosclerotic 40 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiautistic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anticarpal-Tunnel 100-150 mg/day/12 wks/orl/man	Martindale's 29th
Anticheilitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidepressant 40-50 mg day	
Antidermatitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidiabetic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Hydrazine) 10 g ivn	Martindale's 29th
Antidyskinetic 250-300 mg/man/4x/day	Martindale's 28th
Antiemetic 20-200 mg/man/day	Martindale's 28th
Antiepileptic 40 mg/day	
Antiglossitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihomocystinuric 40 mg/day	
Antihyperkinetic 1.5-2 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antihyperventilation 40 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinfertility 40 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antilithic 40 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antinephritic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antineuritic 150 mg/man/day	Martindale's 28th
Antineuropathic 50 mg	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antioxaluric	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiparkinsonian 50 mg day	
Antiprolactin	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiradiation	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antischizophrenic 50 mg/man/3x/day	Martindale's 28th
Antiseborrheic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antisickling	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antispasmodic 100 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiulcer	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antivertigo	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Dopaminergic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Neurotoxic 2-6 g/day for 2-24 mos	Martindale's 29th
Progesteronigenic 40 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.

PYROGALLLOL-OXIDASE

Seed

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QUERCETIN

Plant

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Activities (176)**11B-HSD-Inhibitor****5-Lipoxygenase-Inhibitor
IC50 (uM)=4**

ATPase-Inhibitor Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.

**Aldehyde-Oxidase-
Inhibitor IC70-96=10 uM****Aldose-Reductase-
Inhibitor 100 uM**

Aldose-Reductase-Inhibitor 4 ug/ml Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. Sankyo Kenkyusho Nempo, 43: 99-110.

Aldose-Reductase-Inhibitor IC50=0.84 ug/ml cow Okada, Y. et al. 1995. Search for Naturally Occurring Substances to Prevent the Complications of Diabetes. II. Inhibitory Effect of Coumarin and Flavonoid Derivatives on Bovine Lens Aldose Reductase and Rabbit Platelet Aggregation. Chem Pharm Bull 43(8):1385-1387

Aldose-Reductase-Inhibitor IC50=0.344 uM Mao, X. M., Zhang, J. Q. 1993. Inhibition of Aldose Reductase by Extracts of Chinese Herbal Medicine. Zhongguo Zhongyao Zazhi, 18(10): 623-624.

Allelochemic IC82=1 mM Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.

Allergenic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Analgesic	
AntiCrohn's 400 mg/man/3x/day	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf).
AntiGTF ID50=120 ug/ml	
AntiHIV	
AntiPMS 500 mg/2x/day/wmn	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiaflatoxin IC50=25 uM	
Antiaflatoxin IC50=7.5 ppm	
Antiaggregant IC50=55 uM	Economic & Medicinal Plant Research, 5: 333.
Antiaggregant 30 uM	
Antiaging	
Antiallergic IC50=14 uM	Jim Duke's personal files.
Antialzheimeran	
Antianaphylactic	Meli, R., Autore, G., Di Carlo, G., Capasso, F. Inhibitory Action of Quercetin on Intestinal Transit in Mice. <i>Phytotherapy Research</i> 4(5): 201, 1990.
Antiangiogenic	
Antiarthritic	
Antiasthmatic IC50=14 uM	
Antiatherosclerotic	
Antibacterial	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Anticarcinomic (Breast) IC50=1.5 uM	Medline (post 1990 searches filed in my computer)
Anticariogenic ID50=120 ug/ml	
Anticataract	
Anticolitic 400 mg/man/3x/day	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticomplementary	
Anticystitic 1,000 mg/day/4 weeks	
Antidepressant	
Antidermatitic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antidiabetic	
Antielaatase IC50=0.8 ug/ml	
Antiencephalitic	Economic & Medicinal Plant Research, 5: 199.
Antiescherichic	
Antiestrogenic	
Antifeedant IC52=<1,000 ppm diet	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Antifibrosarcomic	
Antiflu	Vlietinck, A.J. and Dommissie, R.A. eds. 1985. <i>Advances in Medicinal Plant Research.</i> Wiss. Verlag. Stuttgart.
Antigastric	Rastitel'nye Resursy, 21: 85.
Antigonadotropic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Antihepatotoxic	Joyeux, M., Rolland, A., Fleurentin, J., Mortier, F., and Dorfman, P. 1989. Tert-Butyl Hydroperoxide-Induced Injury in Isolated Rat Hepatocytes: A Model for Studying Anti-Hepatotoxic Crude Drugs. <i>Planta Medica</i> 56(2): 171-173, 1990.
Antiherpetic 48-150 ug/ml	
Antihistaminic IC50=<10 uM	
Antihydrophobic	Vlietinck, A.J. and Dommissie, R.A. eds. 1985. <i>Advances in Medicinal Plant Research.</i> Wiss. Verlag. Stuttgart.
Antihypertensive	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs.</i> CRC Press, Boca Raton, FL 388 pp.
Antiinflammatory 20-150 mg/kg	Fitoterapia No.5-1990.
Antileishmanic IC50=64	
Antileukemic IC50=10 uM	Economic & Medicinal Plant Research, 5: 225.
Antileukemic IC50=>10 ug/ml	Life Sciences 55: 1061.
Antileukemic 5.5-60 uM	
Antileukotriene	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antilipoperoxidant IC67=50	
Antimalarial IC50=1-6.4 ug/ml	Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987.
Antimelanomic	
Antimetastatic	
Antimutagenic ID50=2-5 nM	Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Antimutagenic ID50=0.62 ug/ml	

Antimycarditic	Economic & Medicinal Plant Research, 5: 199.
Antinitrosaminic	
Antinociceptive	
Antioxidant IC96=300 ppm	Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Antioxidant ED50=2.3 uM	Seidel, V., Verholle, M., Malard, Y., Tilleguin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98.
Antioxidant 4.7 x Vit. E	
Antioxidant IC47=10 uM	
Antipancreatic	Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY.
Antiperiodontal	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiperistaltic	
Antipermeability	
Antiperoxidant	<i>Planta Medica</i> , 57: A110, 1991.
Antipharyngitic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiplateau	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiplasmodial IC50=13-64	
Antipodriac	
Antipolio	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiproliferant 10 nM	
Antiprostanoind	
Antiprostatic	Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY.
Antipsoriac	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiradicular IC50=4.6 uM	<i>Planta Medica</i> , 56(6): 695, 1990.
Antispasmodic	
Antistreptococcic ID50=120 ug/ml	
Antithiamin	Phenolic Compounds in Food and Their Effects on Health, 69.
Antithrombic	
Antitrypanosomic IC50=13	
Antitumor 10 uM	
Antitumor (Bladder)	
Antitumor (Breast)	
Antitumor (Colon)	
Antitumor (Lung)	
Antitumor (Ovary)	
Antitumor (Skin) 20 uM	
Antitumor-Promoter	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiulcer	
Antiviral IC50=10 uM	Economic & Medicinal Plant Research, 5: 225.
Antiviral 48-150 ug/ml	Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. <i>J. of Natural Products</i> 55(12):1732-1740, 1992.
Apoptotic 20-60 uM	
Bacteristat 10 mg/ml	
Bradycardiac	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
COMT-Inhibitor	
COX-2-Inhibitor <40 uM	
Calmodulin-Antagonist	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	
Capillariprotective	Merck 11th Edition
Carcinogenic 40,000 ppm (diet) mus	Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp.
Catabolic	
Copper-Chelator	
Cyclooxygenase-Inhibitor	
Cytochrome-P450-1A2-Inhibitor	
Cytotoxic ED50=70 ug/ml	Matsukawa, Y., et al. The Effect of Quercetin and Other Flavonoids on Cell Cycle Progresssion and Growth of Human Gastric Cancer Cells. <i>Planta Medica</i> , 56(6): 677, 1990.
Cytotoxic IC82=100 ug/ml	<i>Planta Medica</i> , 57: A113, 1991.
Deiodinase-Inhibitor	Jim Duke's personal files.
Diaphoretic?	Lawrence Review of Natural Products, Dec-90.
Differentiator 5.5 uM	
Estrogenic 10% genistein	
Fungicide	
Glucosyl-Transferase-Inhibitor ID50=120 ug/ml	

HIV-RT-Inhibitor IC50=<1 ug/ml	Nakane, H., Fukushima, M., and Ono*, K. Differential Inhibition Of Reverse Transcriptase And Various DNA Polymerases By Digallic Acid And Its Derivatives. <i>Journal of Natural Products</i> , 53(5): 1234-1240, 1990.
Hemostat	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hepatomagenic 5,000 ppm (diet) rat	Phenolic Compounds in Food and Their Effects on Health. <i>Antioxidants & Cancer Prevention</i> . Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Hepatoprotective	
Hypoglycemic 100 mg/kg orl rat	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
Inotropic	
Insulinogenic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Juvabional	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Larvostat 8,000 ppm diet	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Lipoxygenase-Inhibitor IC11=1.25 mM	Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. <i>J. Agric. Food Chem.</i> 38: 688-690.
Lipoxygenase-Inhibitor IC50=0.1-5 uM	
MAO-A-Inhibitor	
MMP-9-Inhibitor 20 uM	
Mast-Cell-Stabilizer	
Metal-Chelator (Copper)	Seidel, V., Verholle, M., Malard, Y., Tilleguin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98.
Metalloproteinase-Inhibitor IC50=>42 uM	
Mutagenic	
NADH-Oxidase-Inhibitor	
NEP-Inhibitor IC50=>42 uM	
NF-kB-Inhibitor	
NO-Inhibitor IC>50=125 uM	
NO-Inhibitor IC50=20 uM	
NO-Synthase-Inhibitor 5-50 uM	
Neuroprotective 5-25 uM	
Ornithine-Decarboxylase-Inhibitor <10 uM	
P450-Inducer 5 uM	Father Nature's Farmacy: The aggregate of all these three-letter citations.
P450-Inhibitor 50-100 uM	Father Nature's Farmacy: The aggregate of all these three-letter citations.
PGE2-Inhibitor	
PTK-Inhibitor 0.4-24 uM	
Pesticide	
Phospholipase-Inhibitor	
Plasmodicide	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.
Proliferant	
Prostaglandin-Synthesis-Inhibitor 40 ug/ml	Ibewuike, J. C., Ogunbamila, F. O., Ogundaini, A. O., Okeke, I. N., Bohlin, L. 1997. Antiinflammatory and Antibacterial Activities of C-methylflavonol from <i>Piliostigma thonningii</i> . <i>Phytotherapy Research</i> , 11(4): 281-284.
Protein-Kinase-C-Inhibitor	Naim, M., Zehavi, U., Nagy, S., and Rouseff, R.L. Hydroxycinnamic Acids as Off-Flavor Precursors in Citrus Fruits and Their Products. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.14.
Quinone-Reductase-Inducer 6 uM	Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. <i>Cancer Lett.</i> , 120 (2): 213-216.
Quinone-Reductase-Inducer 13 uM	
TNF-alpha-Inhibitor IC50=3.11 uM	
Teratologic	
Topoisomerase-I-Inhibitor IC50=12.8 ug/ml	
Topoisomerase-I-Inhibitor IC50=42 uM	
Topoisomerase-II-Inhibitor IC50=1-6.9 ug/ml	
Topoisomerase-II-Inhibitor IC50=23-40 uM	
Tumorigenic 0.1% diet orl rat/yr	Jim Duke's personal files.
Tyrosinase-Inhibitor ID50=70 uM	
Tyrosine-Kinase-Inhibitor	<i>Economic & Medicinal Plant Research</i> , 6: 170.
VEGF-Inhibitor	
Vasodilator	
Xanthine-Oxidase-Inhibitor IC50=>0.4 ug/ml	<i>Chem. & Pharm. Bull.</i> 38: 1772.
Xanthine-Oxidase-Inhibitor IC50=10.6 ug/ml	
Xanthine-Oxidase-Inhibitor 3.1 uM	

cAMP-Phosphodiesterase-Inhibitor

Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

iNOS-Inhibitor IC50=20 uM

RAFFINOSE Seed -- 3300.0 -0.68 *

Activities (1)

Flatulent Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek (*Trigonella foenum graecum* L.). *Plant Foods for Human Nutrition*. 46: 77-84, 1994.

RIBOFLAVIN Plant 11.0 40.0 1.99 *

Activities (15)

AntiLyme 50 mg/day

Antiarabiflavinotic 2-10 mg/day orl Martindale's 28th

Anticarpal-Tunnel 50 mg/day Werbach, M. 1993. *Healing with Food*. Harper Collins, New York, 443 pp.

Anticataract 15 mg/day Werbach, M. 1993. *Healing with Food*. Harper Collins, New York, 443 pp.

Anticephalagic

Anticervicaldysplasic 1.6-10 mg/day

Anticheilitic

Antidecubitic

Antiglossitic Davies, S., and Stewart, A. 1990. *Nutritional Medicine*. Avon Books, New York. 509pp.

Antikeratitic

Antimigraine

Antioxidant

Antipellagic

Antiphotophobic Davies, S., and Stewart, A. 1990. *Nutritional Medicine*. Avon Books, New York. 509pp.

Cancer-Preventive Stitt, P. A. *Why George Should Eat Broccoli*. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

RIBOFLAVIN Seed 0.7 8.0 1.72 *

Activities (15)

AntiLyme 50 mg/day

Antiarabiflavinotic 2-10 mg/day orl Martindale's 28th

Anticarpal-Tunnel 50 mg/day Werbach, M. 1993. *Healing with Food*. Harper Collins, New York, 443 pp.

Anticataract 15 mg/day Werbach, M. 1993. *Healing with Food*. Harper Collins, New York, 443 pp.

Anticephalagic

Anticervicaldysplasic 1.6-10 mg/day

Anticheilitic

Antidecubitic

Antiglossitic Davies, S., and Stewart, A. 1990. *Nutritional Medicine*. Avon Books, New York. 509pp.

Antikeratitic

Antimigraine

Antioxidant

Antipellagic

Antiphotophobic Davies, S., and Stewart, A. 1990. *Nutritional Medicine*. Avon Books, New York. 509pp.

Cancer-Preventive Stitt, P. A. *Why George Should Eat Broccoli*. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

RIBONUCLEASE Seed -- -- *

Activities (2)

Analgesic Martindale's 29th

Antiarthritic Martindale's 29th

RIBULOSE-DIPHOSPHATE-CARBOXYLASE Leaf -- -- *

SALICYLIC-ACID Seed 3.0 4.0 -1.0 *

Activities (34)

Aldose-Reductase-Inhibitor 724.6 uM	Toyomizu, M., Sugiyama, S., Jin, R. L., Nakatsu, T. 1993. Alpha-Glucosidase and Aldose Reductase Inhibitors: Constituents of Cashew, Anacardium occidentale, Nut Shell Liquids. <i>Phytotherapy Research</i> , 7(3): 252-254.
Analgesic	
Antiarthritic	Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel</i> . Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Antibacterial	Martindale's 28th
Antidandruff	A.L.L. Hunting. <i>Encyclopedia of Shampoo Ingredients</i> . Micelle Press, Cranford NJ. 467 pp.
Antidermatotic	
Antieczemic	
Antiichthyosic	Martindale's 29th
Antiinflammatory	Pharmazie, 46: 156, 1991.
Antineuralgic	Madaus, G. 1976. <i>Lehrbuch der Biologischen Hilfsmittel</i> . Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Antioncychomycotic	Martindale's 29th
Antioxidant	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Antiperiodic	
Antipodagric	
Antipsoriac	
Antipyretic	
Antirheumatic	
Antiseborrheic	
Antiseptic	A.L.L. Hunting. <i>Encyclopedia of Shampoo Ingredients</i> . Micelle Press, Cranford NJ. 467 pp.
Antitumor	
Antitympanic	Merck 11th Edition
COX-2-Inhibitor	Newmark, T. M. and Schulick, P. 2000. <i>Herbal Cox-2 Inhibition - Nature's Challenge to Arthritis, Cancer & Alzheimer's Disease</i> . Hohm Press, Prescott AZ.
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Comedolytic	Martindale's 29th
Cyclooxygenase-Inhibitor	
Dermatitigenic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Fungicide MIC 1,000 ug/ml	
Hypoglycemic	<i>Economic & Medicinal Plant Research</i> , 6: 158.
Insectifuge	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.
Keratolytic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Pesticide	
Thermogenic 130 ppm	
Tineacide	Martindale's 29th
Ulcerogenic	

SCHAFTOSIDE Sprout Seedling -- -- *

Activities (1)

Insectiphile Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

SERINE Seed 1000.0 7567.0 -0.58 *

Activities (1)

Cancer-Preventive Stitt, P. A. *Why George Should Eat Broccoli*. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

SINAPIC-ACID Seed 14.0 15.0 -0.58 *

Activities (9)	
Antibacterial	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antihepatotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antioxidant IC27=30 ppm	
Antiperoxynitrite IC39=5 uM	
Antiperoxynitrite IC60=20 uM	
Antiperoxynitrite IC75=100 uM	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Fungicide	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide	

SINAPOYL-8-D-GALACTOSYL-6-C-ARABINOSYL-APIGENIN	Sprout Seedling	--	--		*
SINAPOYL-ISOSCHAFTOSIDE	Plant	--	--		*
SINAPOYL-VICENIN-1	Plant	--	--		*
SODIUM	Plant	200.0	3000.0	-0.14	*

Activities (1)	
Hypertensive	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

SODIUM	Seed	--	2200.0	2.78	*
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Activities (1)	
Hypertensive	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

SP	Plant	--	--		*
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STACHYOSE	Seed	--	--		*
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Activities (1)	
Flatugenic	Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek (Trigonella foenum graecum L.). Plant Foods for Human Nutrition. 46: 77-84, 1994.

STARCH	Seed	542000.0	800000.0	1.98	*
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Activities (5)	
Absorbent	Martindale's 29th
Antidote (Iodine)	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antinesidioblastotic	Martindale's 29th
Emollient	Martindale's 29th
Poultice	Martindale's 29th

STEARIC-ACID	Plant	--	--		*
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Activities (8)	
5-Alpha-Reductase-Inhibitor	
Cosmetic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
FLavor FEMA 2-4,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Hypocholesterolemic	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
Lubricant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Perfumery	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Propepic	
Suppository	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

SUCCINIC-DEHYDROGENASE	Seed	--	--		*
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SUCROSE	Seed	--	8400.0	-0.58	*
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Activities (14)

Aggregant	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antihiccup 1 tsp	Martindale's 29th
Antiphthalmic	Martindale's 29th
Antioxidant	Merck 11th Edition
Atherogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Collyrium	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Demulcent	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Flatugenic	Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek (<i>Trigonella foenum graecum</i> L.). <i>Plant Foods for Human Nutrition</i> . 46: 77-84, 1994.
Hypercholesterolemic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Preservative	Merck 11th Edition
Sweetener 1 x sucrose	Merck 11th Edition
Triglycerigenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Uricogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Vulnerary	Martindale's 29th

SUGAR Seed 14000.0 59000.0 -0.23 *

SULFUR Seed 1200.0 3200.0 0.38 *

Activities (14)

Acarifuge	
Antiacne	Martindale's 29th
Antiarthritic	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidandruff	Martindale's 29th
Antigrey	Martindale's 29th
Antiosteoarthritic	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiseborrheic	Martindale's 29th
Antiseptic	Martindale's 29th
Comedogenic	Martindale's 29th
Keratolytic	Martindale's 29th
Laxative	Martindale's 29th
Parasiticide	Martindale's 29th
Pesticide	
Scabicide	Martindale's 29th

SULFUR Plant 1300.0 2900.0 -0.41 *

Activities (14)

Acarifuge	
Antiacne	Martindale's 29th
Antiarthritic	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidandruff	Martindale's 29th
Antigrey	Martindale's 29th
Antiosteoarthritic	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiseborrheic	Martindale's 29th
Antiseptic	Martindale's 29th
Comedogenic	Martindale's 29th
Keratolytic	Martindale's 29th
Laxative	Martindale's 29th
Parasiticide	Martindale's 29th
Pesticide	
Scabicide	Martindale's 29th

SYRINGIC-ACID Seed 3.0 5.0 -0.66 *

Activities (6)					
Allelopathic					
Antioxidant IC39=30 ppm					
Antioxidant 1/3 BHA					
Antiperoxidant IC10-70=100-200 ug/ml					
Antiradicular EC50=5.5-8 ug/ml					
Ubiquiot	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				

TETRADECA-2,12-DIEN-4,6,8,10-TETRAYN	Sprout Seedling	--	--		*
THIAMIN	Seed	1.1	12.0	1.29	*

Activities (31)					
Analgesic 1-4 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
AntiLyme 50 mg					
Antialcoholic 50-100 mg/day					
Antialzheimeran 100-3,000 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antianoretic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antibackache 1-4 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antiberiberi					
Anticanker					
Anticardiospasmic					
Anticataract					
Anticolitic					
Antidecubitic					
Antideliriant					
Antidementia					
Antidyspeptic					
Antiencephalopathic	Martindale's 29th				
Antifatigue	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antigastritic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antihangover 50 mg					
Antiheartburn					
Antiherpetic					
Antimigraine					
Antimyocarditic					
Antineuralgic 1-4 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antineurasthenic					
Antineuritic					
Antineuropathic 50 mg	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antipoliomyelitic					
Insectifuge 75-150 mg/man/day	Martindale's 28th				
Neuroprotective					
Pesticide					

THIAMIN	Plant	3.3	4.0	-0.31	*
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Activities (31)

Analgesic 1-4 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
AntiLyme 50 mg	
Antialcoholic 50-100 mg/day	
Antialzheimeran 100-3,000 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antianorectic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antibackache 1-4 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiberiberi	
Anticanker	
Anticardiospasmic	
Anticataract	
Anticolitic	
Antidecubitic	
Antideliriant	
Antidementia	
Antidyspeptic	
Antiencephalopathic	Martindale's 29th
Antifatigue	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antigastritic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antihangover 50 mg	
Antiheartburn	
Antiherpetic	
Antimigraine	
Antimyocarditic	
Antineuralgic 1-4 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antineurasthenic	
Antineuritic	
Antineuropathic 50 mg	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antipoliomyelitic	
Insectifuge 75-150 mg/man/day	Martindale's 28th
Neuroprotective	
Pesticide	

THREONINE Seed 3000.0 6000.0 -0.48 *

Activities (4)

Antioxidant?	
Antiulcer	Martindale's 29th
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
FLavor FEMA 1,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

TOCOPHEROL Seed 59.0 1897.0 -0.23 *

Activities (93)

5-HETE-Inhibitor	
Allergenic	
Analgesic 100 IU 3 x day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
AntiMD	
AntiMS	
AntiPMS 300 IU 2 x day	
Antiaaggregant	Martindale's 28th
Antianging	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antialzheimeran 2,000 IU	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antianginal 1,067 mg/man/day	
Antiartherosclerotic	
Antiarthritic	
Antiatherosclerotic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antibronchitic	
Anticancer (Breast) IC50=125 ug/ml	
Anticariogenic	

Anticataract	
Antichorea	
Antichoreic	
Anticonvulsant	
Anticoronary 100-200 IU/day	
Antidecubitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidementia	
Antidermatitic	
Antidiabetic 600-1,200 mg/day	
Antidysmenorrheic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiepitheleomic	
Antifibrositic	Martindale's 28th
Antiglycosation	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antiherpetic	Martindale's 28th
Antiinfertility	
Antiinflammatory	
Antiischemic	
Antileukemic 100-250 uM	
Antileukotriene	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antilithic 600 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antilupus	
Antimaclitic	
Antimastalgic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antimelanomic	
Antimyoclonic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antineuritic	Martindale's 29th
Antineuropathic	
Antinitrosaminic	
Antiophthalmic	
Antiosteoarthritic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antioxidant IC50=30 ug/ml	
Antioxidant IC95=650 uM	
Antioxidant IC36=10 uM	
Antiparkinsonian	
Antiproliferant IC50=150 ug/ml	
Antiradicular	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiretinopathic?	Martindale's 29th
Antirheumatic	
Antisenility	
Antisickling	Martindale's 28th
Antispasmodic 300 mg/man/day	Martindale's 28th
Antisterility	
Antistroke	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antisunburn	
Antisyndrome-X	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antithalassemic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antithrombotic 600 IU/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antithromboxane-B2	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antitoxemic	
Antitumor 7 uM ckn	Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.
Antitumor (Breast) IC50=125 ug/ml	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antitumor (Breast) 100-250 uM	
Antitumor (Colorectal) 500-10,000 uM	
Antitumor (Prostate) 100-250 uM	
Antitumor (Stomach)	
Antiulcerogenic 67 mg/man/3 x/day/orl	
Apoptotic 100-250 uM	
Calcium-Antagonist	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cardioprotective	

Cerebroprotective	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Circulatory-Stimulant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Circulotonic	
Hepatoprotective	
Hypocholesterolemic 100-450 IU/man/day	
Hypoglycemic 600 IU/man/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Immunomodulator	
Immunostimulant 60-800 IU	
Insulin-Sparing 1,000 IU	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Lipoxygenase-Inhibitor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
NO-Inhibitor	
Ornithine-Decarboxylase-Inhibitor 400 mg/kg	
P21-Inducer 500-10,000 uM	
Phospholipase-A2-Inhibitor	
Protein-Kinase-C-Inhibitor 10-50 uM	
Protein-Kinase-C-Inhibitor IC50=450 uM	
Vasodilator	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95

TRICIN Plant -- -- *

Activities (9)	
Allelopathic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Anticariogenic	Wealth of India.
Antileukemic 6-12 mg/kg	
Antioxidant	
Antitumor	
Catabolic	
Estrogenic	
Herbistat	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide	

TRIDEC-1,11-DIEN-3,5,7,9-TETRAYN Sprout Seedling -- -- *

TRIDEC-1-EN-3,5,7,9,11-PENTAYN Sprout Seedling -- -- *

TRIGONELLINE Seed -- -- *

Activities (15)	
Anticancer (Cervix)	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Anticancer (Liver)	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antihyperglycemic	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
Antimigraine	
Antiseptic	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
Antitumor (Cervix)	
Antitumor (Liver)	
Epidermal-Stimulant	
Hypocholesterolemic	
Hypoglycemic 500-3,000 mg/man/day	Martindale's 28th
Hypoglycemic 50 mg/kg orl rat	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Mutagenic	
Osmoregulator	
Pesticide	
Propepic	

TRIPHOSPHOPYRIDINE-NUCLEOTIDE-OXIDASE Seed -- -- *

TRITRIOL Sprout Seedling -- -- *

TRYPTOPHAN Seed 1000.0 3000.0 -0.11 *

Activities (29)	
Analgesic 750 mg/4x/day/orl/man	Martindale's 29th
Antianxiety 500-1,000 mg/meal	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidementia 3 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antidepressant 1-3 g/3x/day/orl/man	Martindale's 29th
Antidyskinetic 2-8 g/orl/wmn/day	Martindale's 29th
Antihypertensive	J. Agri. & Food Chemistry, 36: 1079.
Antiinsomniac 1-3 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antimanic 12 g/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antimenopausal 6 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antimigraine 500 mg/man/4x/day	Martindale's 29th
Antioxidant 125 ug/ml	
Antiparkinsonian 2 g 3 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiphenylketonuric	Martindale's 29th
Antiprostaglandin 250 pg/ml	
Antipsychotic 12 g/man/day	Martindale's 29th
Antirheumatic	Martindale's 29th
Antiscoliotic	
Carcinogenic	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Essential	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Hypnotic	Martindale's 29th
Hypoglycemic	Economic & Medicinal Plant Research, 6: 157.
Hypotensive 3 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Insulinase-Inhibitor	Economic & Medicinal Plant Research, 6: 157.
Insulinotonic	J. Agri. & Food Chemistry, 36: 1079.
Monoamine-Precursor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Prolactinogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Sedative 3-10 g/man/day	
Serotonergic 6-12 g/day/orl/man	Martindale's 28th
Tumor-Promoter	J. Agri. & Food Chemistry, 36: 1079.

TYROSINE	Seed	1000.0	9000.0	0.29	*
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Activities (8)	
Antidepressant?	
Antiencephalopathic	Martindale's 29th
Antiparkinsonian 100 mg/kg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiphenylketonuric	Martindale's 29th
Antiulcer 256 mg scu	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.
Antiulcer 400 mg/kg ipr rat	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Monoamine-Precursor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

URACIL	Seed	--	--		*
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URIDINE	Seed	--	--		*
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VALINE	Seed	2000.0	9000.0	-0.37	*
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Activities (3)	
Antiencephalopathic	Martindale's 29th
Essential	
FLavor FEMA 1,000-2,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

VANILLIC-ACID	Seed	13.0	39.0	0.05	*
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Activities (24)

Aldose-Reductase-Inhibitor 100 uM/l	
Allelopathic	
Anthelmintic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antibacterial 1.5-15 mg/ml	Recio, M. C., Rios, J. L., and Villar, A., A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, Phytotherapy Research, 3(4), 1989, 117-125.
Anticancer	
Antifatigue	
Antiinflammatory	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antileukemic IC50=25-56 ug/ml	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46.
Antioxidant IC21=30 ppm	
Antioxidant 1/3 BHA	
Antiperoxidant IC15-65=100-200 ug/ml	
Antiradicular 7 x quercetin	
Antiseptic	
Antisickling	Planta Medica, 56(6): 681, 1990.
Antitumor	
Antitumor-Promoter	
Ascaricide	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Choleretic	
Fungicide	
Immunosuppressant	
Laxative	=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
Pesticide	
Ubiquiot	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

VICENIN-1	Plant	--	--		*
VIT-E	Sprout Seedling	--	2700.0		*
WATER	Seed	60000.0	159000.0	-0.26	*
WATER	Plant	666000.0	876000.0	0.45	*
XYLOSE	Plant	--	--		*

Activities (3)

Antidiabetic	
Diagnostic	Martindale's 28th
Dye	Merck 11th Edition

ZINC	Seed	12.0	19.0	-0.74	*
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Activities (77)

ACE-Inhibitor	
Analgesic	
AntiBPH 25-60 mg/day	
AntiCrohn's	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
AntiHIV	
Antiacne 135 mg/day	
Antiacrodermatitic 8-34 mg/day/orl/chd	Martindale's 29th
Antialcoholic	
Antialopepic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antialzheimeran 50 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiangiogenic	
Antianorexic	Martindale's 29th
Antiarthritic 50 mg/3x/day/orl/man	
Anticanker 100 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Anticataract 30 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Anticoeliac	Martindale's 28th
Anticold 50 mg	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anticolitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.

Anticoronary 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antidandruff	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidementia	
Antidiabetic 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antidote (Cadmium)	Let's Live, May 1989.
Antidysgeuzic	
Antieczemic 150 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiencephalopathic	Martindale's 29th
Antiepileptic 100 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antifibrotic 30 mg	
Antifuruncular 45 mg/3x/day/man	Martindale's 28th
Antihangover 15 mg	
Antiherpetic? 25-60 mg/day	
Antiimpotence	Martindale's 29th
Antiinfective 50 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinfertility 60 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinsomniac	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antileptic	Martindale's 29th
Antileukonychic	
Antilymphomic	
Antimaaculitic	
Antimetastatic	
Antineuropathic	
Antinyctalopic	
Antioesity 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antiosteoporotic	
Antiperiodontitic	
Antiplaque	Martindale's 29th
Antiprolactin	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiprostatic 50 mg/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antirheumatic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiseptic 50 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antispare-Tire 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antistomatitic 50 mg/man/3x/day	Martindale's 28th
Antisyndrome-X 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antitinnitic 60-120 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antitriglyceride 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antiulcer 50 mg/3x/day/man	Martindale's 28th
Antiulcer 88 mg/rat/day/15 days	
Antiviral?	Martindale's 29th
Astringent	Martindale's 28th
Collagenic	
Copper-Antagonist	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Deodorant	Martindale's 29th
Detoxicant (Alcohol)	
Ergogenic	
Hypotensive 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Immunomodulator	
Immunostimulant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Immunosuppressant 300 mg/day/6 wks/orl/man	Martindale's 29th
Insulinogenic 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Leptingenic 30-60 mg/man/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Mucogenic	Li, K.M. Effect of zinc sulphate on acetic acid-induced gastric ulceration in rats. J. Pharm. Pharmacol. 42: 657-659, 1990.
NF-kB-Inhibitor	
Pesticide	
Spermigenic 60 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Testosteronigenic 60 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Trichomonicide	Martindale's 29th
Vulnerary	Martindale's 28th

