

**Dr. Duke's Phytochemical and Ethnobotanical Database**

**Chemicals Found in *Vaccinium myrtillus***

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
30	(+)-CATECHIN	Fruit	--	--		
30	(+)-CATECHIN	Leaf	--	--		
38	(-)-EPICATECHIN	Fruit	--	--		
38	(-)-EPICATECHIN	Leaf	--	--		
21	(-)-EPIGALLOCATECHIN	Leaf	--	--		
0	1,8-CINEOL	Fruit Juice	--	--		
0	2-HYDROXY-3-METHYLBUTANOIC-ACID-ETHYL-ESTER	Fruit Juice	--	--		
0	2-HYDROXY-3-METHYLBUTANOIC-ACID-METHYL-ESTER	Fruit Juice	0.02	0.02		
0	2-METHOXY-5-VINYLPHENOL	Fruit Juice	--	--		
0	2-METHYL-BUTAN-1-OL	Fruit Juice	--	--		
0	2-METHYL-BUTANOIC-ACID	Fruit Juice	0.06	0.06	1.00000000000000013	
0	2-PHENYLETHANOL	Fruit Juice	0.02	0.02		
0	3,4-DIHYDROXYCINNAMIC-ACID	Fruit	--	--		
0	3-HYDROXY-3-METHYLBUTANOIC-ACID-ETHYL-ESTER	Fruit Juice	0.01	0.01		
0	3-HYDROXY-3-METHYLBUTANOIC-ACID-METHYL-ESTER	Fruit Juice	--	--		
0	3-PHENYL-PROPAN-1-OL	Fruit Juice	0.003	0.003		
0	4-HYDROXY-BENZOIC-ACID	Fruit Juice	--	--		
0	4-HYDROXY-BENZOIC-ACID	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	4-VINLYPHENOL	Fruit Juice	0.01	0.01		
16	ACETIC-ACID	Fruit Juice	0.32	0.32	-0.9999999999999999	
0	ACETIC-ACID-2-PHENYL-ETHYL-ESTER	Fruit Juice	--	--		
0	ACETIC-ACID-HEX-CIS-3-ENYL-ESTER	Fruit Juice	--	--		
0	ACETOIN	Fruit Juice	--	--		
23	ALPHA-TERPINEOL	Fruit Juice	0.015	0.015	-0.7625968906166204	
5	ALUMINUM	Fruit	25	318	-0.13100832398788578	
30	ANTHOCYANINS	Leaf	--	--		
0	ANTHOCYANOSIDES	Fruit	--	30000	1	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ANTHOCYANOSIDES	Leaf	3000	20000		
0	APS-SULFOTRANSFERASE	Leaf	--	--		
15	ARBUTIN	Plant	15000	15000	-1.3286388424226248	
15	ARBUTIN	Leaf	--	3000	-0.7316170494453632	
15	ARBUTIN	Fruit	--	--		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.
2	ARSENIC	Fruit	0.01	0.01	-0.5241085631054083	ACTA AGRIC SCAND SUPPL 22: 1980

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
112	ASCORBIC-ACID	Fruit	132	1650	-0.18189696747022557	
0	ASH	Fruit	3840	48000	-0.2243510805009802	
9	ASPERULOSIDE	Leaf	--	--		
9	ASPERULOSIDE	Fruit	--	--		
7	ASTRAGALIN	Leaf	--	--		
7	ASTRAGALIN	Fruit	--	--		
7	AVICULARIN	Leaf	--	--		Gruenwald, J. et al. 1998. PDR for Herbal Medicine. 1st ed. Medical Economics Co., Montvale, NJ. 1244 pp. (abbreviated as PHR or Physicians Herbal Reference in my mind)
24	BENZALDEHYDE	Fruit Juice	--	--		
20	BENZOIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	BENZYL-ALCOHOL	Fruit Juice	0.08	0.08		
9	BETA-AMYRIN	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
53	BETA-CAROTENE	Fruit	4	47	-0.059950475940205736	
47	BETA-SITOSTEROL	Tissue Culture	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
47	BETA-SITOSTEROL	Fruit	--	--		
4	BORON	Fruit	0.6	10	-0.6025676490591996	ACTA AGRIC SCAND SUPPL 22: 1980
0	BROMINE	Fruit	--	1	-0.42563543443835	ACTA AGRIC SCAND SUPPL 22: 1980
0	BUTAN-1-OL	Fruit Juice	0.001	0.001	-0.9999999999999999	
0	BUTAN-2-OL	Fruit Juice	0.01	0.01	-1	
0	BUTANOIC-ACID	Fruit Juice	0.13	0.13	0.9999999999999999	
3	CADMIUM	Fruit	0.001	0.02	-0.5848464463574334	ACTA AGRIC SCAND SUPPL 22: 1980
102	CAFFEIC-ACID	Fruit	--	--		
102	CAFFEIC-ACID	Leaf	40	40	-0.7103779880667277	
102	CAFFEIC-ACID	Fruit Juice	--	--		
28	CALCIUM	Fruit	510	6380	0.582373090515347	
1	CAPROIC-ACID	Fruit Juice	0.04	0.04	-0.9999999999999997	
31	CARYOPHYLLENE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
43	CATECHIN	Leaf	--	--		
1	CATECHINS	Leaf	--	200000	1	
0	CERYL-ALCOHOL	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
77	CHLOROGENIC-ACID	Leaf	2800	2800	1.0924264319161126	
77	CHLOROGENIC-ACID	Fruit	1900	1900	0.5534391651296359	
77	CHLOROGENIC-ACID	Fruit Juice	--	--		
24	CHROMIUM	Fruit	--	0.7	-0.4093125277624259	
0	CHRYSANTHEMIN	Fruit	--	--		
60	CINNAMALDEHYDE	Leaf	--	--		
60	CINNAMALDEHYDE	Fruit	--	--		
18	CINNAMIC-ACID	Leaf	--	--		
23	CITRIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
23	CITRIC-ACID	Fruit	--	--		
15	CITRONELLOL	Fruit Juice	0.001	0.001		
2	COBALT	Fruit	--	0.1	-0.5230092918235771	
12	COPPER	Fruit	0.7	6.3	-0.5073665269805587	ACTA AGRIC SCAND SUPPL 22: 1980
0	CYANADIN-3-O-ARABINOSIDE	Leaf	219	438		
7	CYANIDIN	Fruit	--	--		
7	CYANIDIN	Leaf	--	--		
0	CYANIDIN-3-ARABINOSIDE	Fruit	--	--		
0	CYANIDIN-3-GALACTOSIDE	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CYANIDIN-3-GLUCOSIDE	Fruit	--	--		
0	CYANIDIN-3-O-ARABINOSIDE	Leaf	219	438		
0	CYANIDIN-3-O-ARABINOSIDE	Fruit	--	--		
4	CYANIDIN-3-O-GALACTOSIDE	Fruit	--	--		
4	CYANIDIN-3-O-GALACTOSIDE	Leaf	275	550		
19	CYANIDIN-3-O-GLUCOSIDE	Leaf	342	684		
19	CYANIDIN-3-O-GLUCOSIDE	Fruit	--	--		
0	CYANIDIN-GLYCOSIDE	Plant	--	--		
9	DELPHINIDIN	Fruit	--	--		
0	DELPHINIDIN-3-MONOGLUCOSIDE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DELPHINIDIN-3-O-ARABINOSIDE	Leaf	432	864		
0	DELPHINIDIN-3-O-ARABINOSIDE	Fruit	--	--		
1	DELPHINIDIN-3-O-BETA-D-GLUCOSIDE	Fruit	--	--		
0	DELPHINIDIN-3-O-GALACTOSIDE	Leaf	504	1004		
0	DELPHINIDIN-3-O-GALACTOSIDE	Fruit	--	--		
0	DELPHINIDIN-3-O-GLUCOSIDE	Leaf	581	1162		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DELPHINIDIN-3-RHAMNOGLYCOSIDE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DELPHINIDIN-5-MONOGLYCOSIDE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DELPHINIDIN-GLYCOSIDE	Plant	--	--		
1	DELTA-DECALACTONE	Fruit Juice	--	--		
1	DIHYDROXYCINNAMIC-ACID	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
40	EPICATECHIN	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	EPIGALLOCATECHIN	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	EPIMYRTINE	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	EPIMYRTINE	Shoot	4.3	4.3		
0	ETHYL-2-METHYL-BUTYRATE	Fruit	--	--		
0	ETHYL-3-METHYLBUTYRATE	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
76	EUGENOL	Fruit Juice	0.01	0.01		
0	FAT	Seed	310000	310000	0.2349895147568526	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	FAT	Fruit	1760	22000	-0.4732178594145328	
61	FERULIC-ACID	Fruit	--	--		
61	FERULIC-ACID	Fruit Juice	--	--		
61	FERULIC-ACID	Leaf	--	--		
0	FIBER(CRUDE)	Fruit	--	89000	-0.6728110234170557	
0	FIBER(DIETARY)	Fruit	--	370000	-0.1454086686639877	
0	FLUORINE	Fruit	--	0.1	-1.2385741096298049	ACTA AGRIC SCAND SUPPL 22: 1980
0	FOENICULIN	Leaf	--	--		
0	FORMIC-ACID-2-PHENYL-ETHYL-ESTER	Fruit Juice	0.002	0.002		
8	FRUCTOSE	Fruit	37800	38200		
62	GALLIC-ACID	Fruit Juice	--	--		
62	GALLIC-ACID	Leaf	--	--		
0	GALLOCATECHIN	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	GAMMA-BUTYROLACTONE	Fruit Juice	--	--		



Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	GAMMA-DECALACTONE	Fruit Juice	0.022	0.022		
0	GAMMA-DODECALACTONE	Fruit Juice	--	--		
0	GAMMA-OCTALACTONE	Fruit Juice	0.045	0.045		
8	GENTISIC-ACID	Leaf	--	--		
35	GERANIOL	Fruit Juice	--	--		
7	GLUCOSE	Fruit	27600	31600		
0	HEX-CIS-3-EN-1-OL	Fruit Juice	0.06	0.06		
0	HEX-TRANS-2-EN-1-AL	Fruit Juice	0.06	0.06		
0	HEX-TRANS-2-EN-1-OIC-ACID	Fruit Juice	0.03	0.03		
0	HEX-TRANS-2-EN-1-OL	Fruit Juice	0.01	0.01	-1	
0	HEXAN-1-OL	Fruit Juice	0.02	0.02		
0	HOMOPROTOCATECHUIC-ACID	Leaf	--	--		
32	HYDROQUINONE	Leaf	--	--		
32	HYDROQUINONE	Fruit	--	--		
0	HYDROXY-ISOCARVOMENTHOL	Fruit Juice	--	--		
30	HYPEROSIDE	Fruit	--	--		
30	HYPEROSIDE	Leaf	--	--		
30	HYPEROSIDE	Fruit Juice	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	INOSITOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	INVERT-SUGARS	Fruit	300000	300000	0.8532031018639995	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	IRIDIDS	Leaf	--	--		
6	IRON	Leaf	250	250	-0.28689375971144965	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	IRON	Fruit	12	151	0.07148811973975773	
4	ISOCHLOROGENIC-ACID	Leaf	2000	2000		
4	ISOCHLOROGENIC-ACID	Fruit	250	250	1	
16	ISOEUGENOL	Fruit Juice	--	--		
4	ISOFERULIC-ACID	Leaf	--	--		
22	ISOQUERCITRIN	Leaf	--	--		
22	ISOQUERCITRIN	Fruit Juice	--	--		
0	LEAD	Fruit	0.04	0.7	-0.44890981456900714	
0	LEUCOANTHOCYANINS	Leaf	--	--		
60	LIMONENE	Fruit Juice	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
53	LINALOOL	Fruit Juice	0.004	0.004	-0.9999999999999998	
15	LUTEIN	Tissue Culture	--	--		
15	LUTEIN	Fruit	2.6	26	1.4117785541906174	
0	M-COUMARIC-ACID	Fruit	--	--		
0	M-COUMARIC-ACID	Fruit Juice	--	--		
1	M-HYDROXYBENZOIC-ACID	Fruit	--	--		
1	M-HYDROXYBENZOIC-ACID	Fruit Juice	--	--		
65	MAGNESIUM	Fruit	312	3900	0.8197346940018424	
15	MALIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	MALVIDIN	Fruit	--	--		
0	MALVIDIN-3,5-DIGLUCOSIDE	Fruit	--	--		
0	MALVIDIN-3-O-ARABINOSIDE	Fruit	--	--		
0	MALVIDIN-3-O-ARABINOSIDE	Leaf	81	162		
0	MALVIDIN-3-O-BETA-D-GLUCOSIDE	Fruit	--	--		
0	MALVIDIN-3-O-GALACTOSIDE	Fruit	--	--		
0	MALVIDIN-3-O-GALACTOSIDE	Leaf	127	254		
0	MALVIDIN-3-O-GLUCOSIDE	Leaf	335	370		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	MALVIDIN-GLYCOSIDE	Plant	--	--		
14	MANGANESE	Fruit	7	91	0.1965046391200611	
14	MANGANESE	Leaf	2500	2500	3.6962602714553836	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	MELILOTIC-ACID	Leaf	--	--		
0	MERATRINE	Leaf	--	--		Gruenwald, J. et al. 1998. PDR for Herbal Medicine. 1st ed. Medical Economics Co., Montvale, NJ. 1244 pp. (abbreviated as PHR or Physicians Herbal Reference in my mind)
1	MERCURY	Fruit	--	0.001	-0.7865389313824043	ACTA AGRIC SCAND SUPPL 22: 1980
2	MOLYBDENUM	Fruit	--	0.1	-0.46519775248328327	ACTA AGRIC SCAND SUPPL 22: 1980
2	MONOTROPEIN	Fruit	--	--		
2	MONOTROPEIN	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	MONOTROPEIN	Stem	--	--		
0	MONOTROPEOSIDE	Leaf	--	--		
0	MONOTROPEOSIDE	Fruit	--	--		
1	MYRTILLIN	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	MYRTILLOL	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	MYRTINE	Shoot	17.5	17.5		
0	MYRTINE	Plant	10	10		
0	NEOCLOROGENIC-ACID	Leaf	140	140		
0	NEOCLOROGENIC-ACID	Fruit	10	10		
0	NEOMYRTILLIN	Shoot	--	--		
0	NEOMYRTILLIN	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
10	NEROL	Fruit Juice	0.002	0.002		
39	NIACIN	Fruit	5	65	0.057508760745179625	
2	NONACOSANE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	NONAN-1-AL	Fruit Juice	--	--		
4	O-COUMARIC-ACID	Fruit	--	--		
4	O-COUMARIC-ACID	Fruit Juice	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
64	OLEANOLIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
25	OPCS	Fruit	--	--		
9	OXALIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
25	P-COUMARIC-ACID	Leaf	--	--		
25	P-COUMARIC-ACID	Fruit Juice	--	--		
25	P-COUMARIC-ACID	Fruit	--	--		
8	P-CRESOL	Fruit Juice	0.001	0.001		
0	P-DIMETHYL-ALPHA-STYRENE	Fruit Juice	--	--		
13	P-HYDROXY-BENZOIC-ACID	Fruit	--	--		
0	PAEONIDIN	Fruit	--	--		
0	PAEONIDIN-3-O-GALACTOSIDE	Fruit	--	--		
0	PARACOUMARIC-ACID	Fruit	--	--		
24	PECTIN	Fruit	4000	50000	-0.03661673030520101	
0	PENTAN-1-OIC-ACID	Fruit Juice	--	--		
0	PENTAN-1-OL	Fruit Juice	0.05	0.05	0.9999999999999999	
0	PENTYL-FURAN	Fruit Juice	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	PEONIDIN	Leaf	--	--		
0	PEONIDIN-3-O-ARABINOSIDE	Leaf	22	44		
0	PEONIDIN-3-O-ARABINOSIDE	Fruit	--	--		
1	PEONIDIN-3-O-BETA-D-GLUCOSIDE	Fruit	--	--		
0	PEONIDIN-3-O-GALACTOSIDE	Fruit	--	--		
0	PEONIDIN-3-O-GALACTOSIDE	Leaf	34	68		
0	PEONIDIN-3-O-GLUCOSIDE	Leaf	131	262		
3	PETUNIDIN	Fruit	--	--		
0	PETUNIDIN-3-O-ARABINOSIDE	Fruit	--	--		
0	PETUNIDIN-3-O-ARABINOSIDE	Leaf	108	216		
1	PETUNIDIN-3-O-BETA-D-GLUCOSIDE	Fruit	--	--		
0	PETUNIDIN-3-O-GALACTOSIDE	Fruit	--	--		
0	PETUNIDIN-3-O-GALACTOSIDE	Leaf	189	378		
0	PETUNIDIN-3-O-GLUCOSIDE	Leaf	367	734		
0	PETUNIDIN-GLYCOSIDE	Plant	--	--		
26	PHENOL	Fruit Juice	0.03	0.03		
2	PHENYL-ACETALDEHYDE	Fruit Juice	0.003	0.003		
4	PHOSPHORUS	Fruit	856	10700	2.2731902006060767	
5	PHYLLOQUINONE	Fruit	--	0.04	-0.22673532125634782	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	POTASSIUM	Fruit	1338	16730	-0.10497458816336862	
0	PROCYANIDIN-A-1	Leaf	--	--		
1	PROCYANIDIN-B-1	Leaf	--	--		
1	PROCYANIDIN-B-1	Fruit	--	--		
1	PROCYANIDIN-B-2	Leaf	--	--		
1	PROCYANIDIN-B-2	Fruit	--	--		
2	PROCYANIDIN-B-3	Fruit	--	--		
4	PROCYANIDIN-B-4	Leaf	--	--		
4	PROCYANIDIN-B-4	Fruit	--	--		
0	PROCYANIDIN-C-1	Leaf	--	--		
0	PROTEIN	Fruit	10320	129000	0.26142555134441664	
43	PROTOCATECHUIC-ACID	Fruit	--	--		
43	PROTOCATECHUIC-ACID	Fruit Juice	--	--		
43	PROTOCATECHUIC-ACID	Leaf	--	--		
176	QUERCETIN	Leaf	--	--		
2	QUERCETIN-3'-GLUCOSIDE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUERCETIN-3-0-GALACTOSIDE	Leaf	--	--		



Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	QUERCETIN-3-ARABINOSIDE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUERCETIN-3-GLUCOSIDOGUCOSIDE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUERCETIN-3-GLUCOSYL-GLUCOSIDE	Leaf	--	--		
0	QUERCETIN-3-GLUCURONIDE	Leaf	--	--		
1	QUERCETIN-3-O-RHAMNOSIDE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUERCETIN-3-RHAMNOSIDE	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
44	QUERCITRIN	Fruit Juice	--	--		
44	QUERCITRIN	Fruit	--	--		
44	QUERCITRIN	Leaf	--	--		
1	QUINIC-ACID	Leaf	20000	50000	0.7547340705685329	
0	RESINIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	RIBOFLAVIN	Fruit	0.2	2.6	-0.5159915584690182	
0	RUBIDIUM	Fruit	5	60	3.0850078278809683	ACTA AGRIC SCAND SUPPL 22: 1980
87	RUTIN	Leaf	--	--		
34	SALICYLIC-ACID	Leaf	--	--		
0	SALICYLIC-ACID-METHYL-ESTER	Fruit Juice	0.001	0.001		
60	SELENIUM	Fruit	0.2	2.8	0.30814666605054625	
4	SILICON	Fruit	--	--		
9	SINAPIC-ACID	Leaf	--	--		
1	SODIUM	Fruit	4	50	-0.17920934261084967	
7	SUCCINIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	SUCROSE	Fruit	--	--		
0	SUGARS	Fruit	12000	150000	-0.26503678076002984	
14	SULFUR	Fruit	130	1075	-0.2363356329259065	ACTA AGRIC SCAND SUPPL 22: 1980
6	SYRINGIC-ACID	Fruit	--	--		
6	SYRINGIC-ACID	Fruit Juice	--	--		
6	SYRINGIC-ACID	Leaf	--	--		
35	TANNIN	Leaf	60000	200000	1.0922402514317946	
35	TANNIN	Fruit	50000	120000	0.2460348882910567	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
31	THIAMIN	Fruit	7	8	0.3414272755878574	
0	THIAMINE	Fruit	0.6	7.8	2.0731663991191227	
4	TIN	Fruit	4	50	-0.1811041243657825	
4	TRANS-2-HEXENAL	Fruit	--	--		
7	TRANS-CINNAMALDEHYDE	Fruit Juice	--	--		
0	TRANS-CINNAMYL-ALCOHOL	Fruit Juice	--	--		
89	URSOLIC-ACID	Fruit	2500	2500	-0.2673024778	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
89	URSOLIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
24	VANILLIC-ACID	Leaf	--	--		
24	VANILLIC-ACID	Fruit	--	--		
24	VANILLIC-ACID	Fruit Juice	--	--		
28	VANILLIN	Fruit Juice	0.015	0.015		
0	WATER	Fruit	--	920000	0.6497106840979096	
5	ZEAXANTHIN	Tissue Culture	--	--		
77	ZINC	Fruit	1	8.7	-0.6499015135402889	