

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Ribes nigrum

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	LIMONENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	QUINIC-ACID	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
77	CHLOROGENIC-ACID	Fruit				--
28	ALPHA-PINENE	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	Fruit				--
0	EMULSIN	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	2-METHYL-3-BUTEN-2-OL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
18	OLEIC-ACID	Seed Oil				--
34	MYRICETIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	DIOSPHENOL	Bud				--
0	PENTANOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
112	ASCORBIC-ACID	Leaf				--
0	STYROL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	KAEMPFEROL-3-O-BETA-D-RUTOSIDE	Fruit Juice				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
44	QUERCITRIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	ALPHA-PINENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	(+)-SPATHULENOL	Bud				--
0	ISO-AMYBUTYRATE	Fruit				--
8	DELTA-3-CARENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	2-HEXENAL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	MYRICETIN-3-O-BETA-D-GLUCOSIDE	Fruit Juice				--
22	MYRCENE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DELPHINIDIN-3-O-RHAMNOSIDE	Fruit				--
0	DELPHINIDIN-3-RUTINOSIDE	Fruit				--
0	PENTANAL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
61	FERULIC-ACID	Fruit				--
176	QUERCETIN	Fruit Juice				--
0	GALLOCATECHIN-(4-ALPHA-8)- GALLOCATECHIN-(4-ALPHA-8)- GALLOCATECHIN- GENTISIC-ACID	Fruit				--
0	KAEMPFEROL-3-GLUCOXYLOSIDE	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	QUERCETIN-3'-GLUCOSIDE	Fruit				--
4	SAKURANETIN	Leaf				--
0	2-BUTANONE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	MYRICETIN-3-GLUCOSIDE	Leaf				--
22	MYRCENE	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-BETA-D-SOPHOROSIDE	Fruit Juice				--
9	TERPINOLENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	DELPHINIDIN-3-GLUCOSIDE	Fruit				--
0	PECTINESTERASE	Fruit				--
9	TERPINOLENE	Bud				--
2	CITRONELLYL-ACETATE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	STEARIDONIC ACID	Seed Oil				--
0	KAEMPFEROL-3-GLUCORHAMNOSIDE	Leaf				--
176	QUERCETIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
87	RUTIN	Fruit Juice				--
9	CAMPHENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	P-MENTH-1,8-DIEN-4-OL	Bud				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
35	GERANIOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	DELPHINIDIN-3-O-BETA-D-GLUCOSIDE	Fruit				--
0	TERPINENOL-(4)	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DELPHINIDIN-3-DIGLUCOSIDE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
24	PECTIN	Fruit				--
3	BETA-PHELLANDRENE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	2-BUTANOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
75	KAEMPFEROL	Fruit Juice				--
2	CITRONELLYL-ACETATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	SABINENE	Bud				--
0	(+)-HARDWICKIIC ACID	Bud				--
43	PROTOCATECHUIC-ACID	Fruit				--
3	ACETONE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
22	ISOQUERCITRIN	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	OCT-1-EN-3-OL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	INDOLE-ACETIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
21	METHYL-SALICYLATE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
8	GENTISIC-ACID	Fruit				--
5	CYANIN	Fruit				--
0	TERPINENOL-(4)	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	DELPHINIDIN	Plant				--
3	BETA-PHELLANDRENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	1-PENTEN-3-OL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
44	QUERCITRIN	Fruit Juice				--
15	CITRONELLOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	PULEGONE	Bud				--
1	GALLOCATECHIN-(4ALPHA->8)- GALLOCATECHIN-(4ALPHA->8)- GALLOCATECHIN	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	ETHYL-BUTYRATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
102	CAFFEIC-ACID	Fruit				--
16	ACETIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUERCETIN-3-O-BETA-D-RUTOSIDE	Fruit Juice				--
4	O-COUMARIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
20	GAMMA-LINOLENIC-ACID	Seed Oil				--
21	METHYL-SALICYLATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CYANIDIN-3-O-RHAMNOSIDE	Fruit				--
0	TERPINENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DACTYLIFRIC-ACID	Fruit				--
0	BETA-OCIMENE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	1-METHYL-4-ISOPROPYLBENZOL	Plant				--
3	BETA-PHELLANDRENE	Bud				--
3	ISOMENTHONE	Bud				--
1	GALLOCATECHIN-(4ALPHA->8)-GALLOCATECHIN	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	ETHYL-BENZOATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	ACETALDEHYDE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUERCETIN-3-GLUCOXYLOSIDE	Leaf				--
2	HUMULENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	METHYL-N-HEXENOATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CYANIDIN-3-O-BETA-D-SOPHOROSIDE	Fruit Juice				--
0	CYANIDIN-MONOGLUCOSIDE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
67	1,8-CINEOLE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
34	MYRICETIN	Fruit Juice				--
87	RUTIN	Leaf				--
2	CIS-HEX-3-EN-1-OL	Plant				--
0	GALLOCATECHIN	Leaf				--
0	P-METHYLISOPROPENYLBE NZOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	GALLOCATECHIN-(4ALPHA->8)-EPIGALLOCATECHIN	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	ETHYL-ACETATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	BUTYRALDEHYDE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	3-METHYL-BUTANOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PROANTHOCYANIDIN-POLYMER	Leaf				--
3	HEXANOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PROPANOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	METHYL-BUTYRATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	FORMIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	CELLULOSE	Fruit				--
6	SYRINGIC-ACID	Fruit				--
1	CYANIDIN-3-RUTINOSIDE	Fruit				--
7	(+)-GALLOLATECHIN	Fruit				--
15	ALPHA-LINOLENIC-ACID	Seed Oil				--
22	ISOQUERCITRIN	Fruit Juice				--
87	RUTIN	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CIS-BETA-OCIMENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	EPIGALLOCATECHIN	Leaf				--
24	ETHANOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	BUTYL-FORMIATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	3-METHYL-2-BUTEN-1-OL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PROANTHOCYANIDIN-POLYMER	Fruit				--
4	HARDWICKIC-ACID	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TRANS-HEX-2-EN-1-OL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	METHYL-BENZOATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
12	FORMALDEHYDE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CAR-3-ENE	Bud				--
0	CYANIDIN-3-GLUCOSIDE	Fruit				--
24	BENZALDEHYDE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	LINOLENIC-ACID	Seed Oil				--
0	ISOAMYL-BUTYRATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
18	CINNAMIC-ACID	Fruit				--
23	ALPHA-TERPINEOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	P-CYMENOL-(4)	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
75	KAEMPFEROL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	2-PENTANOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PELARGONIDIN-3-O-BETA-D-RUTINOSIDE	Fruit Juice				--
0	GLYCOLLIC-ACID	Fruit				--
0	EUCARVONE	Bud				--
0	TRANS-CHLOROGENIC-ACID	Fruit				--
0	BUTYL-ACETATE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	METHANOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	ASTRAGALIN	Fruit Juice				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CYANIDIN-3-DIGLUCOSIDE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	ALPHA-TERPINENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
16	P-CYMENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
22	ISOQUERCITRIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	2-METHYL-PROPANOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	NEO-CHLOROGENIC-ACID	Fruit				--
0	ISODIOSPHENOL	Bud				--
0	TRANS-BETA-OCIMENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	BUTANOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	ASTRAGALIN	Leaf				--
7	CYANIDIN	Plant				--
27	LINOLEIC-ACID	Seed Oil				--
60	SELENIUM	Fruit		0.002	-0.38569128420884563	--
3	CADMIUM	Fruit	0.001	0.01	-0.6142357150186111	ACTA AGRIC SCAND SUPPL 22: 1980
1	MERCURY	Fruit		0.01	-0.3661474335745678	ACTA AGRIC SCAND SUPPL 22: 1980
2	COBALT	Fruit	0.002	0.027	-0.5318466177584126	ACTA AGRIC SCAND SUPPL 22: 1980

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	ARSENIC	Fruit	0.01	0.06	-0.46003213545175	ACTA AGRIC SCAND SUPPL 22: 1980
3	NICKEL	Fruit		0.101	-0.7487450285711046	ACTA AGRIC SCAND SUPPL 22: 1980
24	CHROMIUM	Fruit	0.01	0.27	-0.46970952066350025	ACTA AGRIC SCAND SUPPL 22: 1980
0	FLAZIN METHYL ETHER	Fruit		0.34		--
0	DEHYDROXY-METHYL FLAZIN	Fruit		0.38		--
2	MOLYBDENUM	Fruit	0.1	0.6	-0.36498673733922654	ACTA AGRIC SCAND SUPPL 22: 1980
0	LEAD	Fruit	0.04	0.6	-0.4548229499765365	ACTA AGRIC SCAND SUPPL 22: 1980
0	BROMINE	Fruit		1.0	-0.42563543443835	ACTA AGRIC SCAND SUPPL 22: 1980
0	FLUORINE	Fruit	0.1	2.8	1.4296307542003595	ACTA AGRIC SCAND SUPPL 22: 1980
31	THIAMIN	Fruit	1.0	3.0	-0.29859918253223444	USDA's Ag Handbook 8 and sequelae)
0	M-CYMOL	Leaf		3.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	P-CYMOL	Leaf		3.0	-0.542974500379653	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	RIBOFLAVIN	Fruit	1.0	3.0	-0.4303249009534089	USDA's Ag Handbook 8 and sequelae)
2	HUMULENE	Leaf		4.0	-0.45322095661158035	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	VIT-B-6	Fruit	1.0	4.0	-0.7070236337221133	USDA's Ag Handbook 8 and sequelae)
12	COPPER	Fruit	0.6	7.0	-0.45288591601748224	--
0	LINALOL	Leaf		7.0	-0.43845318464692984	--
53	LINALOOL	Leaf		7.0	-0.6425964378968151	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
60	LIMONENE	Leaf		7.0	-0.4404202146791783	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
53	BETA-CAROTENE	Fruit	1.0	8.0	-0.1353367732684366	USDA's Ag Handbook 8 and sequelae)
0	VITAMIN-K-1	Fruit		10.1		--
35	GERANIOL	Leaf		12.0	-0.22490199642499295	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	BETA-ALANINE	Fruit Juice		12.0		--
0	OCTEN-1-OL-(3)	Leaf		13.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	THREONINE	Fruit Juice		17.0		--
0	NORVALINE	Fruit Juice		17.0		--
39	NIACIN	Fruit	3.0	17.0	-0.5841679380957736	USDA's Ag Handbook 8 and sequelae)
77	ZINC	Fruit	2.0	21.0	-0.27984522139310664	--
15	LUTEIN	Fruit	4.4	22.0	1.0661490848102466	--
11	PANTOTHENIC-ACID	Fruit	4.0	22.0	0.24848336964903023	USDA's Ag Handbook 8 and sequelae)
3	ASPARTIC-ACID	Fruit Juice		23.0		--
14	MANGANESE	Fruit	0.5	27.0	-0.22550301209784723	--
3	ISOLEUCINE	Fruit Juice		28.0		--
2	LEUCINE	Fruit Juice		28.0		--
0	RUBIDIUM	Fruit	1.0	28.0	0.675517753106432	ACTA AGRIC SCAND SUPPL 22: 1980
7	SALICYLATES	Fruit	3.0	30.0	-0.2507181157512923	--
31	CARYOPHYLLENE	Leaf		34.0	-0.6484758776339403	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	ARGININE	Fruit Juice		35.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CAREN-3	Leaf		38.0		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	SERINE	Fruit Juice		60.0		--
4	BORON	Fruit	1.0	64.0	0.4846568688508411	--
5	ALUMINIUM	Fruit	3.0	65.0	-0.2046115023876262	ACTA AGRIC SCAND SUPPL 22: 1980
2	ASPARAGINE	Fruit Juice		87.0		--
0	PROLINE	Fruit Juice		98.0		--
6	IRON	Fruit	11.0	108.0	-0.0990812909090042	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Fruit	20.0	111.0	-0.17342478111859652	USDA's Ag Handbook 8 and sequelae)
32	ALPHA-TOCOPHEROL	Fruit	22.0	120.0	0.7254612491691786	--
3	VALINE	Fruit Juice		170.0		--
9	OXALIC-ACID	Fruit		200.0	-0.29532056034744525	--
0	EO	Leaf		200.0	-0.99702714807754	--
8	GLUTAMIC-ACID	Fruit Juice		210.0		--
0	ALPHA-ALANINE	Fruit Juice		210.0		--
4	SILICON	Fruit	10.0	220.0	0.1063310267247835	ACTA AGRIC SCAND SUPPL 22: 1980
5	GLUTAMINE	Fruit Juice		290.0		--
8	STEARIC-ACID	Fruit	70.0	388.0	-0.2534900563026795	USDA's Ag Handbook 8 and sequelae)
2	PALMITOLEIC-ACID	Fruit	70.0	388.0	-0.27451591357747396	USDA's Ag Handbook 8 and sequelae)
13	PALMITIC-ACID	Fruit	200.0	1108.0	-0.34828639336044304	USDA's Ag Handbook 8 and sequelae)
14	SULFUR	Fruit	200.0	1385.0	-0.02058118469316889	ACTA AGRIC SCAND SUPPL 22: 1980
65	MAGNESIUM	Fruit	220.0	1720.0	-0.18973196351432575	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ANTHOCYANOSIDES	Fruit		3000.0	-1.0	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.
18	OLEIC-ACID	Fruit	560.0	3102.0	-0.45683700824558143	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Fruit	490.0	3500.0	0.08626372418040051	--
15	ALPHA-LINOLENIC-ACID	Fruit	720.0	3988.0	0.6535435807651567	USDA's Ag Handbook 8 and sequelae)
0	FLAVONOIDS	Leaf		4600.0	-0.7749897228740793	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	CALCIUM	Fruit	502.0	4720.0	0.1993108709232679	--
27	LINOLEIC-ACID	Fruit	1070.0	5928.0	-0.27176478274180926	USDA's Ag Handbook 8 and sequelae)
14	SUCROSE	Fruit		6200.0	-0.7028560356117206	--
0	EO	Bulb		7500.0	-0.3719457894724333	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
112	ASCORBIC-ACID	Fruit	150.0	10030.0	0.3391462316019611	--
0	NITROGEN	Fruit	1800.0	12775.0	-0.12952772042220517	ACTA AGRIC SCAND SUPPL 22: 1980
30	(+)-CATECHIN	Fruit	5500.0	13800.0	1.0	--
0	CALCIUM-PECTATE	Fruit	9000.0	17000.0	-0.4368211543046611	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
14	POTASSIUM	Fruit	3100.0	21110.0	0.2825398898770841	--
7	GLUCOSE	Fruit		23500.0	-0.6456924807905674	--
0	FAT	Fruit	3150.0	27977.0	-0.42756601418508344	USDA's Ag Handbook 8 and sequelae)
0	STEARIDONIC ACID	Seed Essent. Oil		30000.0		--
23	CITRIC-ACID	Fruit		35000.0	-0.07872984738636099	--
8	FRUCTOSE	Fruit		36700.0	-0.34464105992956867	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
30	ANTHOCYANINS	Fruit	10000.0	40000.0	1.0	--
20	GAMMA-LINOLENIC-ACID	Seed	47500.0	57950.0	0.32865774651972557	--
0	ASH	Fruit	8050.0	61100.0	0.11487797078072934	--
0	INVERT-SUGARS	Fruit	60000.0	80000.0	-1.049209219859784	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TANNINS	Leaf		85000.0	-0.12203041771161947	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	PROTEIN	Fruit	12000.0	88640.0	-0.2796177988591396	USDA's Ag Handbook 8 and sequelae)
0	SUGARS	Fruit	15800.0	106400.0	-0.4450056891324181	--
31	CARYOPHYLLENE	Fruit		119000.0	3.1497138144144925	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	ALPHA-LINOLENIC-ACID	Seed Essent. Oil		120000.0		--
18	OLEIC-ACID	Seed Essent. Oil		120000.0	-0.7071067811865472	--
13	BETA-PINENE	Fruit		130000.0	3.8670699671319455	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	FIBER	Fruit	24000.0	133000.0	-0.08187450385949027	USDA's Ag Handbook 8 and sequelae)
0	PROTEIN	Leaf		141700.0	-0.6997646435396685	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
20	GAMMA-LINOLENIC-ACID	Seed Essent. Oil		170000.0	0.4877131100041326	--
0	FAT	Seed	250000.0	305000.0	0.20865272626089487	--
27	LINOLEIC-ACID	Seed Essent. Oil		450000.0	-0.38185378196002584	--
0	WATER	Fruit	815220.0	824000.0	0.23229369814712902	USDA's Ag Handbook 8 and sequelae)
0	CARBOHYDRATES	Fruit	153800.0	852050.0	0.3698785649141745	USDA's Ag Handbook 8 and sequelae)