

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Brassica oleracea var. botrytis I.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
77	ZINC	Flower	3.0	97.0	3.0606347490514247	--
14	POTASSIUM	Flower	3300.0	49080.0	3.0578856743972493	--
28	CALCIUM	Leaf	360.0	54247.0	2.4468006382605774	--
4	SILICON	Flower	2.0	125.0	2.1795902118292325	--
112	ASCORBIC-ACID	Flower	660.0	9300.0	2.0283569773652044	--
31	THIAMIN	Flower	0.6	12.0	1.9586178131455851	--
14	SULFUR	Leaf	1200.0	11800.0	1.6302603378370644	--
4	PHOSPHORUS	Flower	385.0	7375.0	1.5411143666705196	--
4	PUFA	Flower	830.0	10725.0	1.333147880984072	--
15	ALPHA-LINOLENIC-ACID	Leaf	1290.0	13855.0	1.243183883058032	--
4	BORON	Flower	1.0	76.0	1.2304541664359345	--
1	MERCURY	Leaf	0.002	0.09	1.1722789664445759	--
15	RIBOFLAVIN	Flower	0.3	11.0	1.1243491725579133	--
1	METHYL-AMINE	Flower		65.0	1.0000000000000002	--
3	NICKEL	Flower	0.03	12.0	1.0	--
2	DIMETHYL-AMINE	Flower		14.0	1.0	--
5	ALUMINUM	Flower	1.0	150.0	0.9080903837793464	--
11	PANTOTHENIC-ACID	Leaf	5.35	63.0	0.8524389937224381	--
4	PHOSPHORUS	Leaf	644.0	9090.0	0.7577587277969241	--
1	SODIUM	Flower	120.0	2300.0	0.7325478785988843	--
2	MOLYBDENUM	Leaf	0.1	3.76	0.6801012829363977	--
12	COPPER	Leaf	0.68	52.0	0.6699011255650867	--
4	BORON	Leaf	1.0	85.0	0.6469238451071857	--
8	STEARIC-ACID	Flower	30.0	390.0	0.6447612226140537	--
4	LYSINE	Leaf	1410.0	15143.0	0.5181729835111131	--
112	ASCORBIC-ACID	Leaf	911.0	10360.0	0.5173558895778465	--
18	OLEIC-ACID	Flower	120.0	1550.0	0.47798392866277417	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
15	METHIONINE	Leaf	340.0	3652.0	0.46965125289987986	--
13	MUFA	Flower	120.0	1550.0	0.46291004988627577	--
27	LINOLEIC-ACID	Flower	190.0	2455.0	0.4542076634572454	--
32	ALPHA-TOCOPHEROL	Leaf	7.0	439.0	0.35927304562664447	--
14	POTASSIUM	Leaf	3178.0	37270.0	0.3058332790917791	--
3	VALINE	Leaf	1280.0	13747.0	0.29552238675671566	--
77	ZINC	Leaf	4.0	118.0	0.19739995136190341	--
13	PALMITIC-ACID	Flower	240.0	3100.0	0.13966281921675727	--
8	GLUTAMIC-ACID	Leaf	3750.0	40275.0	0.12712766718145815	--
29	TRYPTOPHAN	Leaf	290.0	3115.0	0.10979300838520059	--
61	FERULIC-ACID	Leaf		13.0	0.08918222301645602	--
3	ALANINE	Leaf	1180.0	12673.0	0.017867252591863454	--
15	FIBER	Flower	8000.0	132000.0	0.00499085884442514	--
1	SERINE	Leaf	1000.0	10740.0	-0.003085924608790074	--
7	HISTIDINE	Leaf	500.0	5370.0	-0.0031655528062669996	--
4	THREONINE	Leaf	910.0	9773.0	-0.005488458413534491	--
12	GLYCINE	Leaf	950.0	10203.0	-0.05657990592554876	--
31	THIAMIN	Leaf	0.6	8.0	-0.06349209547044472	--
15	RIBOFLAVIN	Leaf	1.1	21.0	-0.07942432526480918	--
3	ISOLEUCINE	Leaf	1090.0	11707.0	-0.09196747371544084	--
39	NIACIN	Flower	5.0	85.0	-0.09352864336463278	--
1	SODIUM	Leaf	252.0	3091.0	-0.09830203577402047	--
8	STEARIC-ACID	Leaf	70.0	752.0	-0.13186141525885503	--
2	MOLYBDENUM	Stem		1.76	-0.13934558811150258	--
4	SILICON	Leaf	1.0	90.0	-0.14550202645318341	--
15	FOLACIN	Leaf	0.64	8.4	-0.15226470429048047	--
14	MANGANESE	Flower	1.5	48.0	-0.2230146829051698	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
14	ARGININE	Leaf	1450.0	15573.0	-0.25040545078848814	--
3	ASPARTIC-ACID	Leaf	2130.0	22876.0	-0.262328714251028	--
3	NICKEL	Leaf	0.3	7.0	-0.28467312579555515	--
13	PALMITIC-ACID	Leaf	470.0	5048.0	-0.2927982427753776	--
2	COBALT	Leaf	0.02	0.6	-0.29531921745391343	--
6	IRON	Flower	5.0	122.0	-0.3012855132197258	--
18	OLEIC-ACID	Leaf	240.0	2578.0	-0.3066324749217592	--
7	PHENYLALANINE	Leaf	840.0	9022.0	-0.32366072893862124	--
14	MANGANESE	Leaf	2.0	80.0	-0.32688920745367256	--
8	TYROSINE	Leaf	630.0	6766.0	-0.34477094479123366	--
25	P-COUMARIC-ACID	Leaf		13.0	-0.3465642412720655	--
2	LEUCINE	Leaf	1310.0	14069.0	-0.3764770761728601	--
60	SELENIUM	Leaf		0.024	-0.3807027917986485	--
65	MAGNESIUM	Flower	115.0	2250.0	-0.4063280335551449	--
65	MAGNESIUM	Leaf	214.0	3072.0	-0.406886321355332	--
60	SELENIUM	Stem		0.015	-0.42886426089167784	--
15	FIBER	Leaf	10760.0	122866.0	-0.47818554218157117	--
28	CALCIUM	Flower	210.0	4040.0	-0.4787571488570857	--
9	SINAPIC-ACID	Leaf		40.0	-0.5050096614914733	--
9	OXALIC-ACID	Plant		68.0	-0.5351320075910592	--
53	BETA-CAROTENE	Leaf	9.0	138.0	-0.5369565297726103	--
2	COBALT	Flower	0.001	0.125	-0.5425117041971756	--
53	BETA-CAROTENE	Flower		4.0	-0.5606735845287268	--
24	CHROMIUM	Leaf	0.005	0.18	-0.6314530785674829	--
6	IRON	Leaf	8.0	109.0	-0.6442917506016965	--
2	CYSTINE	Leaf	200.0	2148.0	-0.6472110127615397	--
27	LINOLEIC-ACID	Leaf	380.0	4081.0	-0.6928297779549968	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
102	CAFFEIC-ACID	Leaf		8.0	-0.7148173591555008	--
4	BORON	Stem		21.0	-0.7419113414039952	--
5	ALUMINUM	Leaf	1.0	27.0	-0.7515974845433717	--
47	BETA-SITOSTEROL	Flower	120.0	1200.0	-0.7745775450534552	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
3	CADMIUM	Leaf	0.01	0.18	-0.7863999904697607	--
1	MERCURY	Flower	0.0	0.025	-0.9374693023756843	--
12	COPPER	Flower	0.3	8.0	-0.9960623124329469	--
32	ALPHA-TOCOPHEROL	Flower	0.3	4.0	-1.0	--
11	PANTOTHENIC-ACID	Flower	1.4	18.0	-1.0	--
75	KAEMPFEROL	Flower		30.0	-1.0760015465680726	--
24	CHROMIUM	Flower	0.001	0.125	-1.3473800790006203	--
176	QUERCETIN	Flower		6.0	-1.4106513565908647	--
1	PROGOITRIN	Flower	0.0	60.0		--
15	MALIC-ACID	Plant				--
15	MALIC-ACID	Flower				--
176	QUERCETIN	Leaf				--
1	GLUCORAPHANIN	Flower	0.0	990.0		--
1	HEXYL-ACETATE	Plant				--
2	ARSENIC	Leaf				--
24	ETHANOL	Plant				--
23	CITRIC-ACID	Flower				--
1	PROGOITRIN	Leaf				--
1	GLUCONASTURTIN	Flower				--
2	TRANS-FERULIC-ACID	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	STIGMASTEROL	Flower	20.0	200.0		Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
2	DIMETHYL-DISULFIDE	Plant				--
2	PHYTOSTEROLS	Flower	180.0	1800.0		Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
4	LYSINE	Flower	1070.0	13825.0		--
10	ALPHA-AMYRIN	Flower				--
1	GLUCOIBERIN	Flower	0.0	1600.0		--
1	NEOGLUCOBRASSICIN	Tissue Culture				--
7	SINIGRIN	Flower	0.0	325.0		--
39	NIACIN	Leaf				--
3	ALANINE	Flower	1050.0	13565.0		--
2	PHYTOSTEROLS	Plant				--
1	GLUCOBRASSICIN	Flower	60.0	1670.0		--
2	CAMPESTEROL	Flower	30.0	300.0		Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
9	PHYTIC-ACID	Leaf				--
1	NEOGLUCOBRASSICIN	Flower	8.0	450.0		--
1	GLUCORAPHANIN	Leaf	255.0	8990.0		--
1	NEOGLUCOBRASSICIN	Leaf	10.0	900.0		--
3	CADMIUM	Flower	0.003	0.25		--
2	LEUCINE	Flower	1160.0	15000.0		--
3	ACETONE	Flower				--
7	PHENYLALANINE	Flower	710.0	9175.0		--
7	FUMARIC-ACID	Flower				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
1	GLUCONASTURTIN	Leaf	0.0	145.0		--
1	SERINE	Flower	1040.0	13440.0		--
75	KAEMPFEROL	Leaf				--
47	BETA-SITOSTEROL	Plant				--
4	4-VINYL-GUAIACOL	Plant				--
3	PHENETHYLAMINE	Flower		1.8		--
7	SUCCINIC-ACID	Plant				--
3	VALINE	Flower	1000.0	12920.0		--
2	MOLYBDENUM	Flower		0.1		--
1	GLUCOIBERIN	Leaf	0.0	248.0		--
7	ALPHA-CAROTENE	Plant				--
60	SELENIUM	Flower				--
23	CITRIC-ACID	Plant				--
34	SALICYLIC-ACID	Leaf				--
2	BETA-CRYPTOXANTHIN	Plant				--
3	ISOLEUCINE	Flower	760.0	9820.0		--
1	4-HYDROXY- GLUCOBRASSICIN	Flower	7.0	390.0		--
24	ETHANOL	Flower				--
12	STIGMASTEROL	Plant				--
8	TYROSINE	Flower	430.0	5555.0		--
3	PHENETHYL- ISOTHIOCYANATE	Leaf				--
1	GLUCOBRASSICIN	Leaf	30.0	580.0		--
10	ALPHA-AMYRIN	Bud				--
18	CINNAMIC-ACID	Leaf				--
15	METHIONINE	Flower	280.0	3615.0		--
9	BETA-AMYRIN	Flower				--
87	RUTIN	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
29	TRYPTOPHAN	Flower	260.0	3360.0		--
7	FUMARIC-ACID	Plant				--
16	ALLYL-ISOTHIOCYANATE	Leaf				--
1	QUINIC-ACID	Flower				--
2	METHANOL	Plant				--
2	METHANOL	Flower				--
9	BETA-AMYRIN	Bud				--
7	HISTIDINE	Flower	400.0	5165.0		--
24	VANILLIC-ACID	Plant				--
25	P-COUMARIC-ACID	Flower		35.0		--
32	INDOLE-3-CARBINOL	Leaf				--
10	SQUALENE	Plant				--
4	THREONINE	Flower	720.0	9300.0		--
2	CYSTINE	Flower	230.0	2970.0		--
21	CHLOROPHYLL	Leaf				--
2	ARSENIC	Flower				--
1	QUINIC-ACID	Leaf				--
12	GLYCINE	Flower	640.0	8270.0		--
3	INDOLE-3-ACETONITRILE	Leaf				--
13	P-HYDROXY-BENZOIC-ACID	Leaf				--
3	ACETONE	Leaf				--
77	CHLOROGENIC-ACID	Leaf				--
14	ARGININE	Flower	960.0	12400.0		--
44	QUERCITRIN	Leaf				--
8	GLUTAMIC-ACID	Flower	2650.0	34240.0		--
7	SINIGRIN	Plant				--
7	SUCCINIC-ACID	Flower				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
1	4-HYDROXY-GLUCOBRASSICIN	Leaf	3.0	325.0		--