

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

**Chemicals Found in *Serenoa repens***

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	1-MONOLAURIN	Fruit	--	--		
6	1-MONOMYRISTIN	Fruit	--	--		
0	1-OCTACOSANOL	Fruit	58	187		
0	24-METHYLENE-CYCLOARTENOL	Fruit	--	--		
0	3,7,11,15,19,23,27,31-OCTAMETHYL-DOTRIACONTA-2-CIS-6-CIS-10-CIS-14-CIS-18-TRANS-22-TRANS-26-TRANS-OCTAEN-1-OL	Fruit	--	270		
0	3,7,11,15,19,23,31,35-NONAMETHYL-HEXATRIACONTA-2-CIS-6-CIS-10-CIS-14-CIS-18-CIS-22-TRANS-26-TRANS-30-TRANS-3,4-TRANS-NON	Fruit	--	19		
0	ACETOSYRINGONE	Wood	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ACETOVANILLONE	Wood	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	ANTHRANILIC-ACID	Fruit	--	--		
101	APIGENIN	Fruit	--	--		By assumption; if a glycoside is reported, it is automatically assumed that the aglycone is present also in the plant, though sometimes in traces only.
0	APIGENIN-7-O-RHAMNOGLUCOSIDE	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ARABINOSE	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.
112	ASCORBIC-ACID	Fruit	11	88	-0.27901743011351393	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	ASH	Fruit	3770	29000	-0.7163626815965894	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
53	BETA-CAROTENE	Fruit	3	24	-0.1044090615440342	
47	BETA-SITOSTEROL	Fruit	33	281	-0.42504048544050566	
0	BETA-SITOSTEROL-3-O-DIGLUCOSIDE	Plant	--	--		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)

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BETA-SITOSTEROL-3-O-MYRISTATE	Plant	--	--		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)
0	BETA-SITOSTEROL-3-O-MYRISTYL-BETA-GLUCOSIDES	Plant	--	--		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)
6	BETA-SITOSTEROL-D-GLUCOSIDE	Fruit	220	220		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	CALCIUM	Fruit	605	4640	0.18085004106340866	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	CAMPESTEROL	Fruit	28	90	0.10490824541035179	
3	CAPRIC-ACID	Fruit	1000	3200	1.413939973823674	
3	CAPRIC-ACID	Seed Oil	--	--		
0	CAPRINIC-ACID	Fruit	--	18000		
1	CAPROIC-ACID	Fruit	600	1920		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	CAPROIC-ACID	Seed Oil	--	--		
5	CAPRYLIC-ACID	Fruit	920	13000		
5	CAPRYLIC-ACID	Seed Oil	--	--		
0	CAROTENE	Seed Oil	--	--		
0	CERAMIDES	Fruit	--	--		
24	CHROMIUM	Fruit	0.2	1.4	-0.3109918416443979	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	COBALT	Fruit	0.6	5	0.07018107914482831	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
7	CYCLOARTENOL	Fruit	--	--		
5	DAUCOSTEROL	Fruit	47	416		
3	DECANOIC-ACID	Fruit	--	--		
0	EO	Fruit	5400	20000	-0.4312216686487416	
17	FARNESOL	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	FAT	Fruit	3510	27000	-0.435028261598363	
0	FATTY-ACIDS	Fruit	30000	92000		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
61	FERULIC-ACID	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	FIBER(CRUDE)	Fruit	--	130000	-0.1382131172135812	
0	FIBER(DIETARY)	Fruit	--	400000	0.3503027017814249	
8	FRUCTOSE	Fruit	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	FUCOSE	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
1	GALACTOSE	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
11	GERANYL-GERANIOL	Fruit	--	16		
7	GLUCOSE	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	GLUCURONIC-ACID	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
8	GLYCEROL	Seed Oil	--	--		
0	HEXACOSAN-1-OL	Fruit	--	--		
0	HEXACOSANOL	Fruit	2	7		
6	IRON	Fruit	9	66	-0.26568397107756236	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
22	ISOQUERCITRIN	Fruit	--	--		
75	KAEMPFEROL	Fruit	--	--		By assumption; if a glycoside is reported, it is automatically assumed that the aglycone is present also in the plant, though sometimes in traces only.
4	KAEMPFEROL-3-O-GLUCOSIDE	Fruit	--	--		
7	LAURIC-ACID	Fruit	12080	240000	2.5127886336588405	
7	LAURIC-ACID	Seed	--	--		
27	LINOLEIC-ACID	Fruit	1840	36000	0.15250551841720983	
0	LINOLENIC-ACID	Fruit	240	770	-0.8207413427736995	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	LIPASE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	LUPEN-3-ONE	Fruit	--	--		
21	LUPEOL	Fruit	--	--		
65	MAGNESIUM	Fruit	510	3930	0.8336264369951842	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
14	MANGANESE	Fruit	1.2	8.9	-0.3448520509579119	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
18	MANNITOL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
18	MANNITOL	Seed Oil	--	--		
3	MANNOSE	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	MYRISTIC-ACID	Seed	--	--		
6	MYRISTIC-ACID	Fruit	4800	116000	5.20324818328259	
39	NIACIN	Fruit	10	75	0.19119140633704487	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	OCTACOSAN-1-OL	Fruit	--	--		
18	OLEIC-ACID	Fruit	11400	332000	2.0780900532057363	
18	OLEIC-ACID	Seed	--	--		
25	P-COUMARIC-ACID	Fruit Juice	--	--		
13	P-HYDROXY-BENZOIC-ACID	Plant	--	--		
4	P-HYDROXYBENZALDEHYDE	Plant	--	--		
0	P-OXYBENZALDEHYDE	Wood	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	P-OXYBENZOIC-ACID	Wood	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	PALMITIC-ACID	Fruit	3800	87000	0.9888703977409701	
13	PALMITIC-ACID	Seed	--	--		



Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
24	PECTIN	Fruit	605	4640	-0.5751588917297177	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	PHOSPHORUS	Fruit	2105	16200	3.94375903676458	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	PHYTOL	Fruit	--	--		
2	PHYTOSTEROLS	Fruit	--	128	-1.0530092799127762	
0	POLYSACCHARIDE-S1	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	POLYSACCHARIDE-S2	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	POLYSACCHARIDE-S3	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	POLYSACCHARIDE-S4	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	POPULNIN	Fruit	--	--		
14	POTASSIUM	Fruit	2325	17900	-0.00146044676900111	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	PROTEIN	Fruit	14300	110000	0.006722289355626528	
0	RHAMNOSE	Fruit	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	RHOIFOLIN	Plant	--	--		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)
2	RHOIFOLIN	Fruit	--	--		
15	RIBOFLAVIN	Fruit	1	7.3	0.4905916673393905	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
87	RUTIN	Fruit	--	--		
0	SABAL-SERRULATA-ACIDIC-POLYSACCHARIDE	Fruit	--	6000		
60	SELENIUM	Fruit	0.3	2.6	0.2585513872614546	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	SERENOA-POLYPRENOL-2	Fruit	--	5		
0	SERENOA-POLYPRENOL-3	Fruit	--	35		
4	SILICON	Fruit	1	7.8	-0.5831009322457926	
1	SODIUM	Fruit	65	495	-0.1370104923804784	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
11	SORBITOL	Fruit	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	SPHINGOLIPIDES	Fruit	--	--		
8	STEARIC-ACID	Fruit	720	2305	-0.12635840819349412	
8	STEARIC-ACID	Seed	--	--		
0	STEROLS	Exocarp	--	--		
0	STEROLS	Mesocarp	--	--		
12	STIGMASTEROL	Fruit	12	38	-0.6454844173695994	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SUGARS	Fruit	13000	100000	-0.4714231435724017	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	SYRINGALDEHYDE	Wood	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	SYRINGIC-ACID	Wood	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
35	TANNIN	Root	75800	75800	-0.020511406931147124	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
35	TANNIN	Stem	54800	54800	-0.5063597006118161	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TETRACOSANOL	Fruit	1.6	5		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
31	THIAMIN	Fruit	0.6	5	-0.0425885992841977	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	THIAMINE	Fruit	0.7	5	0.7348687812439542	
1	TRIACONTAN-1-OL	Fruit	--	--		
0	TRICONTANOL	Fruit	13	42		
2	TRIDECANOIC-ACID	Fruit	--	--		
0	UNDECANOIC-ACID	Fruit	--	--		
0	URONIC-ACID	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
24	VANILLIC-ACID	Wood	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	VANILLIN	Wood	--	--		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
0	WATER	Fruit	--	870000	0.43230600391521135	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
3	XYLOSE	Fruit	--	--		
77	ZINC	Fruit	0.7	5.2	-0.7552020844764787	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.