

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

**Chemicals Found in Juglans cinerea**

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ALANINE	Seed	13724	14194	0.8583505440524668	
15	ALPHA-LINOLENIC-ACID	Seed	87180	90192	1.447717038467539	
5	ALUMINUM	Seed	2.6	2.6	-0.35932234891389175	
0	ANTIMONY	Seed	0.05	0.05	-0.8363839176601287	
14	ARGININE	Seed	48620	50300	1.0865220633456887	
2	ARSENIC	Seed	0.02	0.02	-0.6237689826185465	
0	ASH	Seed	25150	30466	-0.5237752661102465	
3	ASPARTIC-ACID	Seed	30960	32030	0.8381319412806977	
0	BARIUM	Seed	1.6	1.6	-0.27692764099674966	
4	BORON	Seed	7	7	-0.8116798946510148	
0	BROMINE	Seed	1.5	1.5	-0.47554156401105613	
3	CADMIUM	Seed	0.03	0.03	-0.33359741952043553	
28	CALCIUM	Seed	512	724	-0.6285543780318567	
0	CARBOHYDRATES	Seed	120500	124664	-1.5846665070503922	
0	CESIUM	Seed	0.02	0.02	-0.5814815859175418	
7	CHLORINE	Seed	78	78	-0.5791204881302392	
24	CHROMIUM	Seed	1.4	1.4	-0.47854838847626374	
2	COBALT	Seed	0.2	0.2	-0.19726970453812753	

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12	COPPER	Seed	4	8.4	-0.5818240615182214	
2	CYSTINE	Seed	4840	5007	1.2919093471730698	
0	EUROPIUM	Seed	0.02	0.02	-0.52726637982005	
0	FAT	Seed	564400	595044	1.736418222765207	
15	FIBER	Seed	17370	20721	-0.900620048139117	
0	FLUORINE	Seed	1.1	1.1	-0.5191439680058827	
8	GLUTAMIC-ACID	Seed	60840	62942	0.8956613033638753	
12	GLYCINE	Seed	15080	15601	0.6721371685974302	
3	GOLD	Seed	0.001	0.001	-0.5388159060803251	
7	HISTIDINE	Seed	8080	8359	0.5941477490429204	
12	IODINE	Seed	0.1	0.1	-0.2691124755165415	
6	IRON	Seed	38	76	-0.34751167269779043	
3	ISOLEUCINE	Seed	11790	12197	0.2176174049084412	
0	JUGLANDIC-ACID	Bark	--	--		
0	JUGLANDIN	Bark	--	--		
16	JUGLONE	Bark	--	--		
0	KILOCALORIES	Seed	6120	6331	1.1522129870795645	
0	LANTHANUM	Seed	0.03	0.03	-0.1663780661615404	
0	LEAD	Seed	0.3	0.3	-0.6204106777053475	

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2	LEUCINE	Seed	21990	22750	0.5425868837440764	
27	LINOLEIC-ACID	Seed	337270	348924	2.071781856971881	
0	LUTETIUM	Seed	0.004	0.004	-1.399654448964254	
4	LYSINE	Seed	7700	7966	-0.5597842121402294	
65	MAGNESIUM	Seed	2212	2676	-0.1067162783599209	
14	MANGANESE	Seed	31	72	0.2301841579342054	
1	MERCURY	Seed	0.01	0.01	-0.6911494509964113	
15	METHIONINE	Seed	6111	6321	0.5180395539104474	
2	MOLYBDENUM	Seed	0.4	0.4	-0.778785651822429	
13	MUFA	Seed	104250	107852	-0.011375292592385388	
3	NICKEL	Seed	4.3	4.3	-0.08651658480683809	
18	OLEIC-ACID	Seed	103520	107097	-0.09869998975140129	
13	PALMITIC-ACID	Seed	8720	9021	-0.5134685489451037	
7	PHENYLALANINE	Seed	14420	14918	0.40334181180182965	
4	PHOSPHORUS	Seed	4085	4834	-0.13724383189067685	
14	POTASSIUM	Seed	4044	7493	-0.4464939918140908	
0	PROLINE	Seed	12360	12787	0.2850897370916753	
0	PROTEIN	Seed	235470	271587	0.33616991546704017	
4	PUFA	Seed	427410	442179	2.562243883757353	

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0	RUBIDIUM	Seed	2.5	2.5	-1.1410483509080735	
0	SAMARIUM	Seed	0.03	0.03	-0.8523247028586811	
0	SCANDIUM	Seed	0.003	0.003	-0.4130570344929087	
60	SELENIUM	Seed	0.1	0.1	-0.26278450119784413	
1	SERINE	Seed	16400	16967	1.2251627641947473	
4	SILICON	Seed	1450	1450	1.121505771688299	
1	SODIUM	Seed	2.7	12	-0.6966673911714097	
8	STEARIC-ACID	Seed	4250	4397	-0.46999007116851227	
0	STRONTIUM	Seed	0.3	0.3	-0.8341866995506673	
14	SULFUR	Seed	2870	2870	0.18957786752333922	
35	TANNIN	Bark	--	--		
0	TANTALUM	Seed	0.03	0.03	-0.421637021355784	
0	THORIUM	Seed	0.1	0.1	-1.0786387432600122	
4	THREONINE	Seed	9400	9725	0.3551258810267202	
4	TIN	Seed	0.7	0.7	-0.5623156303677991	
0	TITANIUM	Seed	2.7	2.7	-0.5559100457010118	
29	TRYPTOPHAN	Seed	3660	3786	0.15718499087467394	
0	TUNGSTEN	Seed	0.08	0.08	-0.2753166245005313	
8	TYROSINE	Seed	9770	10108	0.5482773447485537	

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3	VALINE	Seed	15410	15942	0.48407529316519776	
16	VANADIUM	Seed	0.02	0.02	-0.571891524157244	
0	WATER	Seed	30000	36000	-0.7352763653505671	
0	YTTERBIUM	Seed	0.04	0.04	-0.33173501802807365	
77	ZINC	Seed	26	37	-0.2308705488539249	