

Parts per million

In brief :: Rock dust contains every element known to science, that has beneficial properties [except Nitrogen]

Law of the Minimum

Justus von Liebig's Law of the Minimum states that yield is proportional to the amount of the most limiting nutrient, whichever nutrient it may be. From this it may be inferred that if the deficient is supplied

yields may be improved to the point that some other nutrient is needed in greater quantity than the soil can provide, and the Law of the Minimum would apply in turn to that nutrient

For ease of reference we have calculated per square meter the rate for each element [in no of particles]

	ELEMENTS		Percent / ppm	Known benefits	Rock dust	one cube +/- 1 ton	half cube
				None	X	Parts per m/sq	Parts per m/sq
1	Aluminium Al ₂ O ₃	Al	18.4	yes	yes		
2	Antimony - Sb	Sb	>10 ppm	yes	yes	15,630	7,815
3	Arsenic - As	As	1.4 ppm	yes	yes	2,188	1,094
4	Barium - Ba	Ba	273 ppm	yes	yes	426,699	213,350
5	Beryllium - Be	Be	0.43 ppm	yes	yes	672	336
6	Bismuth - Bi	Bi	6 ppm	yes	yes	9,378	4,689
7	Boron - B	B	96 ppm	yes	yes	150,048	75,024
8	Cadmium - Cd	Cd	0.36 ppm	yes	yes	563	282
9	Caesium - Cs	Cs	0.69 ppm	yes	yes	1,078	539
10	Calcium - CaO	Ca	10.2	yes	yes	159,426,000	79,713,000
11	Carbon - C	C	0.13	yes	yes	2,031,900	1,015,950
12	Cerium - Ce	Ce	21 ppm	None	yes	32,823	16,412
13	Chlorine - Cl	Cl	>.01	yes	yes	16	8
14	Chromium - Cr ₂ O ₃	Cr	0.03	yes	yes	47	24
15	Cobalt - Co	Co	26 ppm	yes	yes	40,638	20,319
16	Copper - Cu	Cu	140 ppm	yes	yes	218,820	109,410
17	Dysprosium - Dy	Dy	3.7 ppm	None	yes	5,783	2,892
18	Erbium - Er	Er	2.1 ppm	yes	yes	3,282	1,641
19	Europium - Eu	Eu	0.94 ppm	None	yes	1,469	735
20	Gadolinium - Gd	Gd	4 ppm	yes	yes	6,252	3,126
21	Gallium - Ga	Ga	23 ppm	None	yes	35,949	17,975
22	Germanium - Ge	Ge	1 ppm	yes	yes	1,563	782
23	Gold - Au	Au	0.04 ppm	yes	yes	63	32
24	Hafnium - Hf	Hf	2.6 ppm	yes	yes	4,064	2,032
25	Holmium - Ho	Ho	0.73 ppm	yes	yes	1,141	571
26	Indium - In	In	2.8 ppm	yes	yes	4,376	2,188
27	Iridium - Ir	Ir	0.13 ppm	yes	yes	203	102
28	Iron - Fe ₂ O ₃	Fe	9.25	yes	yes	144,577,500	72,288,750
29	Lanthanum - La	La	9 ppm	yes	yes	14,067	7,034
30	Lead - Pb	Pb	14 ppm	yes	yes	21,882	10,941
31	Lithium - Li	Li	4 ppm	yes	yes	6,252	3,126
32	Lutetium - Lu	Lu	0.26 ppm	None	yes	406	203
33	Magnesium - MgO	Mg	5	yes	yes	78,150,000	39,075,000
34	Manganese - MnO	Mn	0.11	yes	yes	1,719,300	859,650
35	Mercury - Hg	Hg	78 ppm	None	yes	121,914	60,957
36	Molybdenum - Mo	Mo	>4 ppm	yes	yes	6,252	3,126
37	Neodymium - Nd	Nd	12.5 ppm	yes	yes	21,101	10,551
38	Nickel - Ni	Ni	97 ppm	yes	yes	151,611	75,806
39	Niobium - Nb	Nb	>3 ppm	None	yes	4,689	2,345
40	Nitrogen - N	N		yes	X		
41	Palladium - Pd	Pd	0.61 ppm	yes	yes	953	477
42	Phosphorus - P ₂ O ₅	P	0.19	yes	yes	297	149
43	Platinum - Pt	Pt	0.06 ppm	yes	yes	94	47
44	Potassium - K ₂ O	K	0.59	yes	yes	922	461
45	Praseodymium - Pr	Pr	2.8 ppm	yes	yes	4,376	2,188
46	Rhodium - Rh	Rh	0.31 ppm	yes	yes	485	243
47	Rubidium - Rb	Rb	7 ppm	yes	yes	10,941	5,471
48	Ruthenium - Ru	Ru	0.21 ppm	yes	yes	328	164
49	Samarium - Sm	Sm	3.1 ppm	None	yes	4,845	2,423
50	Scandium - Sc	Sc	6 ppm	yes	yes	9,378	4,689
51	Selenium - Se	Se	>1 ppm	yes	yes	1,563	782
52	Silicon - SiO ₂	Si	51	yes	yes	797,130,000	398,565,000
53	Silver - Ag	Ag	>4 ppm	yes	yes	6,252	3,126
54	Sodium - Na ₂ O	Na	2.1	yes	yes	32,823,000	16,411,500
55	Strontium - Sr	Sr	253 ppm	yes	yes	395,439	197,720
56	Sulphur - S	S	0.04	yes	yes	63	32
57	Tantalum - Ta	Ta	>18 ppm	yes	yes	28,134	14,067
58	Tellurium - Te	Te	8 ppm	yes	yes	12,504	6,252
59	Terbium - Tb	Tb	0.6 ppm	None	yes	938	469
60	Thallium - TiO ₂	Ti	0.78	None	yes	1,219	610
61	Thorium - ThO ₂	Th	<10 ppm	None	yes	15,630	7,815
62	Thulium - Tm	Tm	0.31 ppm	None	yes	485	243
63	Tin - Sn	Sn	>10 ppm	yes	yes	15,630	7,815
64	Titanium - TiO ₂	Ti	0.78 ppm	yes	yes	1,219	610
65	Tungsten - W	W	81 ppm	yes	yes	126,603	63,302
66	Uranium - U ₃ O ₈	U	>7 ppm	yes	yes	10,941	5,471
67	Vanadium - V ₂ O ₅	V	0.02	yes	yes	312,600	156,300
68	Ytterbium - Yb	Yb	1.9 ppm	None	yes	2,970	1,485
69	Yttrium - Y	Y	24 ppm	None	yes	37,512	18,756
70	Zinc - Zn	Zn	82 ppm	yes	yes	128,166	64,083
71	Zirconium - Zr	Zr	97 ppm	yes	yes	151,611	75,806