

ORGANIC SOURCES OF NITROGEN, PHOSPHORUS, AND POTASSIUM

Material	N	P	K
Activated sludge	5.00	3.00	
Animal tankage	8.00	20.00	
Alfalfa hay	2.45	.50	2.10
Apple fruit	.05	.02	.1
Apple leaves	1.00	.15	.35
Blood meal	15.00	1.30	.70
Bone meal	4.00	21.0	.20
Bone meal (steamed)	1.6-2.5	21.0	.2
Brewer's grains (wet)	.90	.50	.05
Cattle manure (fresh)	.29	.17	.35
Coffee grounds (dried)	1.99	.36	.67
Corn stalks	.75	.40	.90
Crabgrass (green)	.66	.19	.71
Dried blood	12-15	3.00	15.00
Duck manure	0.6	1.4	0.5
Fish scrap (fresh)	6.5	3.75	
Grass (immature)	1.0		1.2
Greensand		1.50	5.00
Ground bone, burned		34.70	
Hair	14.0		
Hen mature (fresh)	1.63	1.54	.85
Hoof meal and horn dust	12.50	1.75	
Horse manure (fresh)	.44	.17	.35
Immature grass	1.00	.5	1.2
Kentucky bluegrass (green)	.66	.19	.71
Kentucky bluegrass hay	1.2	.4	2.0
Milorganite	6	2	0
Lobster shells	4.60	3.52	
Molasses (residue)	.70		5.32
Oak leaves	.80	.35	.15
Oat straw			1.5
Peach leaves	.90	.15	.60
Pear leaves	.7	.12	.4
Pig manure	0.5	0.3	0.5
Pine needles	0.5	0.12	0,03
Potato tubers	0.35	0.15	2.5
Rabbit manure	2.4	1.4	0.6
Raspberry leaves	1.35	.27	.63
Red clover	.55	.13	.50
Seaweed	1.68	.75	5.00
Sheep manure (fresh)	.55	.31	.15
Sludge	2.0	1.9	0.3

Sludge, activated	5.0	2.5-4.0	0.6
Swine manure (fresh)	.60	.41	.31
Tankage	3-11	2-5	0
Tomato fruit	0.2	0.07	0.35
Tomato leaves	0.35	0.1	0.4
Tomato stalks	0.35	0.1	0.5
Tobacco stems	2.00		7.00
Urine, human	0.6		
Wood ashes		1.50	7.00

SOME IMPORTANT TRACE ELEMENTS AND THEIR SOURCES

The following chart includes some important trace elements and their sources.

BORON: Granite dust, vetch, sweet clover, muskmelon leaves.

COBALT: Manure, mineral rocks, tankage, yeast, legumes, vetch, peach tree refuse, Kentucky bluegrass.

COPPER: Wood shavings, sawdust, redtop, brome grass, spinach, tobacco, Kentucky bluegrass, dandelions.

IRON: Seaweed, most weeds. Is usually available for plants in acid, organic soils; the slight acidity dissolves and chelate iron. Humus is one of the best sources of iron for your plants.

MANGANESE: Manure, seaweed, seawater, forest leaf mold (especially hickory and white oaks), alfalfa, carrot tops, redtop, brome grass.

MAGNESIUM: Dolomite, high magnesium limestone, magnetite, silicate minerals, soluble salts, lake and well brines, seawater.

MOLYBDENUM: Cornstalks, vetch, ragweed, horsetail, poplar and hickory leaves, peach tree clippings. For deficiencies, experts recommend raising the pH of very acid soils to 7 with ground limestone.

ZINC: Rock phosphate, ragweed cornstalks, vetch, horsetail, popular and hickory leaves, peach tree twigs, alfalfa

The following chart includes some important trace elements, their sources, and also the accumulator plants. When making compost, remember that a great diversity of materials used will achieve a more balanced supply of nutrients.

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IRON: Seaweed, most weeds. Is usually available for plants in acid, organic soils; the slight acidity dissolves and chelate iron. Humus is one of the best iron to your plants.

MANGANESE: Manure, seaweed, seawater, forest leaf mold (especially hickory and white oaks), alfalfa, carrot tops, redtop, brome grass. Mulching and applying ground limestone will reduce the poisonous effect of soils containing too much manganese.

MAGNESIUM: Dolomite, high magnesium limestone, magnetite, silicate minerals, soluble salts, lake and well brines, seawater. Add one-pound ground magnesium stone, or one quart of seawater to every 100-chlorophyll molecule, all green matter added to the compost heap is an abundant source of magnesium.

MOLYBDENUM: Cornstalks, vetch, ragweed, horsetail, poplar and hickory leaves, peach tree clippings. For deficiencies, experts recommend raising the pH of very acid soils to 7 with ground limestone.

ZINC: Rock phosphate, ragweed cornstalks, vetch, horsetail, poplar and hickory leaves, peach tree twigs, alfalfa