

COMPOSITION OF NATURAL NUTRIENT CARRIERS

	If you apply (lb/acre)	You will Supply (#/A)				
		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	S	Mg
bloodmeal	100	13	2	1	--	--
rock phosphate	500	--	125-150	--	--	--
bone ash (46% Ca)	100	--	35	--	0.5	0.5
bone meal (33% Ca)	100	3	25	--	0.5	0.5
fish meal	100	9	7	--	0.5	0.5
tankage (animal)	1 ton	140	200	10	20	10
manure (cow, sheep)	1 ton	10	5	10	5	5
manure (poultry)	1 ton	30	20	10	10	5
sewage sludge	1 ton	100	80	20	10	10
(varies by source)						
wood ash (5-50% Ca)	100	--	2	5	0.5	2
(varies by source)						
kelp	100	2.5	1.5	15	1	0.5
seaweed	100	2	0.5	2	2	0.5

RELATIVE NEUTRALIZING VALUE (CaCO<sub>3</sub> equivalent) FOR LIMING MATERIALS

Aglime = ground calcitic limestone (CaCO <sub>3</sub> ) if pure	100
(minimum standard for aglime in WV:)	85
Quicklime = burnt lime = calcium oxide = CaO	179
Hydrated lime = slaked lime = calcium hydroxide = Ca(OH) <sub>2</sub>	136
Basic slag = CaSiO <sub>3</sub> (plus variable P <sub>2</sub> O <sub>5</sub> and Mg)	60-70
Dolomitic limestone = CaMg(CO <sub>3</sub> ) <sub>2</sub> (up to 15% Mg)	100-109
Mg-carbonate = MgCO <sub>3</sub> (35% Mg)	119
Mg-oxide = magox = MgO (60% Mg)	263
Marl (CaCO <sub>3</sub> + clay + org. matter)	50-90
Bone ash & meal (Ca-phosphate)	30-50
Wood ash (depends on source)	5-50

Example: if soil test calls for 100 lb. of lime (aglime) use only  $\frac{100}{136}$  = 74 lb. hydrated lime.

NOTE: Effectiveness of lime depends greatly on fineness. In WV, 90% of aglime must pass 20 mesh, 50% 50 mesh, and 35% 100 mesh. Finer materials react more quickly.

For further details on aglime, ask for WVU Extension Soil Resources Fact Sheet "Aglime Quality" (van Eck, 1-90).

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