

# Recommended Organic & Natural Nutrient Sources for Home Gardens & Grounds



## Nitrogen (N) Sources

Material	Content	Relative release rate	Use for or when*
Bloodmeal	13 % nitrogen	fast release	mid-season sidedress, or full season
Fish Emulsion	4 % nitrogen, also 3 % phosphate	fast release	mid-season sidedress or supplement
Fish meal	9 % nitrogen, also 6 % phosphate	medium-fast release	mid-season or full season, when P is also needed
Crab meal	6% nitrogen, 3% phosphate, 25% lime	medium release	full season supply, when lime is also needed
Soybean meal***	7 % nitrogen, also 2 % phosphate	medium-fast release	mid-season sidedress, or full season
Cottonseed meal*	7 % nitrogen, also 2 % potash	medium-fast release	full season supply (Not certified organic)
Alfalfa meal	2.5 % nitrogen, also 2 % potash	medium-slow release	full season supply, when potassium is also needed
Corn Gluten***	9 % nitrogen	medium-fast release	full season supply, <u>Only on established plants and lawns</u>
Feather meal	12 % nitrogen	medium-fast release	full season supply, mostly in blended natural fertilizers
Broiler manure (pellets)	3-4 % nitrogen, also phosphate	medium-slow release	full season supply
Cow manure (fresh)	variable (up to 1 %), also potash	medium-fast release	full season supply, when K is also needed
Poultry manure (fresh)	variable (up to 3 %), also provides phosphate and lime	fast release	full season supply, when both lime and P are needed

## Phosphorus (P) Sources

Material	Content	Relative release rate	Use for or when**
Fish meal	6 % phosphate, also 9 % nitrogen	fast release	quick correction of soil P, if nitrogen is also needed
Bonemeal/Bone Char	15 % phosphate	medium/fast release	quick correction of soil P level
Rock phosphate	30 % phosphate (3 % available)	slow release, esp. at high pH	long-term P supply (several years)
Poultry manure	variable (up to 3 %), also provides nitrogen and lime	fast release	quick correction of soil P, if N and lime also needed

\*\*For all P sources: for best availability, till in thoroughly

## Potassium (K) Sources

Material	Content	Relative release rate	Use for or when
Wood ash (dry, fine)	5 % potash, also provides lime	fast release	quick correction of soil K level, when lime is also needed
Potassium sulfate ***	50 % potash, also 18 % sulfur	fast release	quick correction of soil K level
Sul-Po-Mag (K-Mag)	22 % potash, also 11 % Mg, 23 % S	medium/fast release	full season supply, when magnesium is also needed
Alfalfa meal	2 % potash, also 2.5 % nitrogen	medium/fast release	full season supply, when nitrogen is also needed
Cow manure	variable (up to 1 %), also nitrogen	fast release	quick correction of soil K level, when N also needed

\* Note: this is a natural fertilizer, but currently there are no sources approved for organic production

\*\*\*Note: not all sources are certified for organic production

Note: The release of nutrients from many of these materials in a form usable by plants requires the activity of soil microbes. Tilling these materials into the soil speeds the breakdown and release process. Conditions which inhibit or slow microbial activity (cold soil, saturated soil, low soil pH) will greatly slow the release of available nutrients from these materials. Even the relatively fast releasing materials require at least a few days or weeks under ideal conditions. Slow releasing materials will provide available nutrients over several years from one application, but will not be useful for short term corrections.

As with any nutrient source, apply these materials only if they are needed - at rates recommended on your soil test report.