



ORGANIC FERTILIZERS

Fertilizers, including organic fertilizers, are regulated by each of the 50 states. In Washington State, the term fertilizer refers to any product that contains one or more recognized plant nutrients and is designed for use in promoting plant growth.

The term organic on a commercial fertilizer product in Washington State means that the product contains carbon (the scientific definition). Gardeners who wish to use an organic fertilizer which conforms to the standards set by the USDA Organic certification, should always look for one of three labels on the fertilizer box or bag:



Organic fertilizers, with some exceptions, release nutrients slowly and often contain trace nutrients your plants need that are not found in most synthetic or highly processed formulations.

Over-application of any fertilizer can result in damage to plants and the environment. And while it is easier to overapply synthetic products because of their concentration, gardeners should still be careful when applying organic nutrients especially those containing blood meal, fresh manure, bat guano, fish emulsion and urea.

APPLICATION METHODS

NOTE: When applying any fertilizer, read and follow the application rates on the label.

Broadcasting

Visit our website at <https://extension.wsu.edu/spokane/master-gardener-program/home-lawn-and-garden/>
e-mail your garden questions to: mastergardener@spokanecounty.org

Extension programs and employment are available to all without discrimination. Evidence of noncompliance may be reported through your local Extension office.

Fertilizer is spread on the top of the soil at a recommended rate and worked into the soil with a spade or tiller or left to filter down to the roots.

Banding

Fertilizer is applied in narrow bands 2 to 3 inches from the seed and 1 to 2 inches deeper. Placing fertilizer too close can burn tender new seedlings.

Side Dressing

After plants are up and growing, apply fertilizer on both sides of the row 6 to 8 inches from the plants. Rake it into the soil and water.

Plant by-products:

Alfalfa Meal or Pellets

Alfalfa meal or pellets are often used as animal feed. Primarily they are used to increase organic matter in the soil but do provide nutrients and a high availability of trace minerals. They contain trianconatol, a natural fatty acid growth stimulant.

Corn Gluten meal

Corn Gluten products have a high percentage of nitrogen. It carries a warning to allow 1 to 4 months of decomposition in the soil prior to seeding. Allelopathic properties will inhibit the germination of seeds. However, there is no danger to established or transplanted plants. This product is also marketed as a pre-emergent weed control for annual grasses in bluegrass lawns.

Cottonseed meal

In warm soils this fertilizer is readily available with little danger of over-fertilizing. Use for acid-loving plants such as rhododendrons, blueberries and azaleas.

Seaweed extract

Seaweed is a good source of trace metals, micronutrients, amino acids and vitamins plus growth hormones that stimulate plant cell division. It doesn't smell as much as a fish emulsion but is more expensive.

- Kelp Meal - a product of the ocean is primarily used as a trace mineral source. It is often combined with fish meal to add N-P-K value
- Kelp Powder - similar to kelp meal but ground fine enough to put into solution and applied as a foliar spray or injected into an irrigation system.
- Liquid Kelp - usually cold processed, liquid kelp will have higher levels of growth hormones than extracts. Some may be enzymatically digested, making growth hormones even more available to the plants.

Animal by-products:

Manures

Nutrient concentrations in manures vary widely with the kind of animal they're from. Fresh manure has the highest concentration and can burn tender roots easily. Composted manure is less harsh. Although the concentration of nutrients is lower in manure than in man-made fertilizers, manure improves soil structure and increases its water holding capacity.

Blood meal

This dried blood from cattle slaughterhouses is a rich source of nitrogen. Do not apply at more than recommended rates because it is concentrated enough to harm plants. Always wear a mask to protect your lungs from dust.

Bone Meal

Bone meal decomposes slowly and releases phosphorus gradually. Bone meal is good for bulbs that don't sprout for several months after they're planted and for alkaline-loving plants such as clematis, lilac and hydrangea. NOTE: Rarely need phosphorus in the Spokane area.

Feather Meal

Sourced from poultry slaughter feather meal has high nitrogen (N) levels but is very slow to release the N.

Fish emulsion

This well-rounded fertilizer consists of partly decomposed ground fish. The smell is strong but will dissipate in a day or two, and can deter pests that don't like the fish smell. It has a high concentration of nitrogen and can burn plants if over-used (especially container plants).

Enzymatically digested hydrolyzed liquid fish

Enzymatically digested hydrolyzed fish use enzymes to digest the fish wastes instead of using heat and acids (fish emulsion). This retains more of the proteins, enzymes, vitamins and micronutrients than emulsions.

Fish meal

Fish meal is ground and heat dried fish waste.