



Organic Fertilizers

Organic fertilizers are derived from plant or animal residues or other naturally occurring substances, and provide one or more of the basic elements needed to sustain plant growth. Some of these fertilizers act as soil conditioners by contributing organic matter; others alter the soil pH (alkalinity/acidity). The printed analysis of a fertilizer indicates the amount of major nutrients in the product: nitrogen (N), phosphate (P) and potash (K). Phosphorous and potassium are present in adequate levels in most soils in Rockland County and New York State. Additional phosphorus is likely to be carried by water runoff into bodies of water.

Soil fertility influences plants' ability to resist pests; some compost-based products will suppress diseases. Soil testing is the first step in determining fertilizer requirements for any given crop. Established plantings may not require fertilization, especially if there is adequate nutrient cycling due to the breakdown of leaves, mulch or other plant materials. Soil testing information may be obtained from Cornell Cooperative Extension.

Nitrogen (N) is needed in moderate amounts for a healthy lawn. Leaving grass clippings on the lawn may reduce these requirements by 30 percent. Slow release organic fertilizer provides a uniform release of nitrogen. The lawn will be green for an extended period of time, and top growth won't be excessive.

New York State Law prohibits the application of lawn fertilizer containing phosphorous unless indicated by a soil test, or the application of any lawn fertilizer between December 1 and April 1. Fertilizer must be removed if it is spilled or lands on an impervious surface, and cannot be applied within 20 feet of surface water, with few exceptions.

Although many organic fertilizers are low in nutrients, they improve the tilth (crumbling texture) of the soil. Most of our soils could benefit from the addition of organic matter supplied by compost or natural fertilizers. These materials increase aeration and water-holding capacity of the soil, which in turn supports healthy plant growth. Microorganisms present in organic matter release mineral elements for absorption by roots.

Fertilizer and Average Analysis	Approximate amount per 100 sq. feet. Apply according to soil test results.	Characteristics
Products of Slaughterhouses		May attract wild animals
Dried Blood, 13-1.5-0	5 pounds	Main value is in nitrogen; most of the phosphorous is insoluble. Decomposes slowly.
Bone Meal, Steamed, 1-11-0	Test soil before application. Generally not necessary in Rockland County. Most of our soils are already high in phosphorous; adding more pollutes surface water.	Steaming releases phosphorous, making it available to plants.
Hoof & Bone Meal, 14-0-0	2 pounds	Steam treated and ground material; available source of nitrogen.

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Animal Wastes		
Cow, 6-.15-.45	1-4 bushels	Manures are generally low in fertilizer and so are more commonly used to improve soil structure. All manures should be aged or dried before adding to planting beds.
Hog, 5-.35-.45	1 bushel	
Horse, 7-.25-.55	1-4 bushel	
Poultry, 4.5-3.2-1.3	1 bushel	
Sheep/ Goat, 1-.4-1	1 bushel	
Sewage Sludge (activated) 6-5-0	3-4 pounds	Special microorganisms added.
Other Organic Materials		
Kelp or Seaweed, 1-.5-9	5 pounds	Used fresh as green manure; contains substantial quantity of potash. Wash well to remove salts.
Rock Phosphate, 0-25-0	Test soil before application. Generally not necessary in Rockland County. Most of our soils are already high in phosphorous; adding more pollutes surface water.	Mined mineral soil.
Cotton Seed Meal, 6-1-1	3-4 pounds	Generally used with acid-loving plants. Contains quick- and slow- release nutrients.
Wood Ashes, 0-1.5-5	Test soil pH prior to application. See Horticulture Lab Fact Sheet "Correcting Soil pH".	Acts similarly to lime by sweetening the soil, but is less effective; good source of potash; use no more than recommended rates.

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The information on pest management for New York State contained in this publication is dated January 2012. The user is responsible for obtaining the most up-to-date pest management information. Contact any Cornell Cooperative Extension county office or PMEP (<http://pmep.cce.cornell.edu/>), the Cornell Cooperative Extension pesticide information website. The information herein is no substitute for pesticide labeling. The user is solely responsible for reading and following manufacturer's labeling and instructions