

Meeting the Highest Quality Standards

After many years of research and one of the most comprehensive risk assessments it ever performed, the US Environmental Protection Agency developed regulations that strictly limit the amount of metals biosolids fertilizers may contain. These limits are designed to be highly protective of human health and the environment.

Bay State Fertilizer is sampled daily and analyzed to determine compliance with state and federal regulations. By meeting the strictest federal standards, Bay State Fertilizer is approved for use in lawns and gardens, as well as in commercial agriculture.

The table below shows regulated metals and average concentrations in Bay State Fertilizer. It is significant to note that some of these regulated metals are essential plant nutrients necessary for normal, healthy growth.

Plant Nutrients	Average Bay State Analysis* (ppm)	Federal Limits (ppm)	MA Type 1 Limits (ppm)
Boron	ND	NR	300
Copper	701	1500	1000
Molybdenum	24	75	25
Nickel	30	420	200
Zinc	1069	2800	2500
Other Metals			
Arsenic	ND	41	NR
Chromium	67	NR	1000
Cadmium	3	39	14
Lead	209	300	300
Mercury	4	17	10
Selenium	4	100	NR

ND-Not Detected NR - Not Regulated * Jan - Dec 2001

The Bay State Advantage

- Beautiful results
- Won't burn lawn or plants (low in soluble salts)
- Feeds microbes that improve soil quality
- Increases soil's moisture holding capacity
- Replenishes the soil with essential plant nutrients and organic matter seldom found in inorganic fertilizers
- Contains no weed seeds
- pH is near neutral
- Environmentally preferable

(617) 788-4437

Bay State Fertilizer
 Massachusetts Water Resources Authority
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Visit our website at

www.mwra.com/sewer/html/baystate.htm
 to find out more about Bay State Fertilizer

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4-2-0 SLOW-RELEASE FORMULA

FOR USE ON

- lawns
- shrubs
- annuals
- vegetable gardens

Bay State

Fertilizer

THE BAY STATE ADVANTAGE

Enhances the beauty of your lawn, season after season.

Breaks down slowly to last longer.

Won't burn your lawn or plants.

Reduces the need for frequent watering.

Supplies iron and other micronutrients.



The natural choice for seasons to come

What Is Bay State Fertilizer?

Bay State Fertilizer is a 100% recycled product made from solids recovered from the wastewater of 43 Massachusetts communities served by the Massachusetts Water Resources Authority. These solids are rich in organic matter and nutrients, and with thorough processing become a valuable fertilizer. MWRA first treats the solids biologically, using beneficial microorganisms, then dries them at high temperatures to destroy harmful bacteria. The resulting biosolids fertilizer meets the highest EPA quality standards. These safe, easy-to-use granules now bring new life to lawns and gardens.

Nutrient Content

Fueled by sun and water, plants grow by using carbon and other nutrients such as nitrogen, potassium, phosphorous, zinc, iron and molybdenum they extract from the soil. Bay State Fertilizer is rich in iron, which is essential for chlorophyll formation, making your plants lush and green.

Although organic biosolids fertilizers have lower nutrient concentrations than most synthetic fertilizers, they provide a more uniform supply of nutrients.

	Guaranteed	Average
Total Nitrogen	4.0%	4.5%
Water Insoluble Nitrogen	3.7%	4.0%
Water Soluble Nitrogen	0.3%	0.5%
Available Phosphorus (as P ₂ O ₅)	2.0%	3.2%
Potassium (as K ₂ O)	0.0%	0.1%
Iron	2.0%	3.0%
	Additional macro- and micro-nutrients	
Calcium		1.9%
Sulfur		2.6%
Copper		0.07%
Zinc		0.1%
Magnesium		0.6%

The Natural Choice for Seasons to Come

Bay State Fertilizer is similar in some ways to compost. Like compost, Bay State Fertilizer adds organic matter to the soil, helping to improve the soil's structure and texture, and increasing the soil's moisture holding capacity. The organic matter in Bay State Fertilizer can also help to decrease water runoff and soil erosion. Unlike compost, however, Bay State Fertilizer is a significant source of nitrogen and other plant nutrients, and can be applied using conventional spreaders.

The nitrogen in Bay State Fertilizer is in a natural organic form, which means that it is initially unavailable for plant use and will not dissolve into ground water. Microorganisms in the soil gradually mineralize this organic nitrogen, transforming it into water-soluble *inorganic* nitrogen which can be taken up by plants when they need it.

The slow release of nutrients benefits not only your plants, but the environment, too. Most synthetic fertilizers do not contain "slow release" nitrogen. As a result, some of the nitrogen in synthetic fertilizers is initially used by plants to stimulate a burst of growth, but the rest of the nitrogen can leach into groundwater, causing an environmental concern. With Bay State Fertilizer, however, plants take up the nitrogen at the rate it becomes soluble, so very little nitrogen is lost to groundwater leaching.

In an outdoor setting, approximately 30% of the nitrogen in Bay State Fertilizer becomes available during the first growing season. This gradual mineralization means you won't see the sudden burst of green that some fertilizers cause. Instead, Bay State Fertilizer gradually nurtures your lawn and garden from one season to the next, prompting stronger roots, uniform growth and deeper green color.

How to Apply

Lawns

- One 40 lb. bag per 2000 square feet - For established lawns, apply evenly 3 times during the growing season: late April, late August, mid-November. Watering-in is not necessary.

Shrubs

- 1 pint for transplanting - At transplanting, mix with the soil used to fill the space between the root ball and the side of the excavation.
- 1.5 pints for spring fertilization - In spring, work into the soil around the base of the shrub.

Vegetable Gardens

- 4 lbs. (3 quarts) per 100 square feet when planting - Use as a supplemental fertilizer to improve the condition of the soil.

Annuals & Perennials

- 5 lbs. (just under 4 quarts) per 100 square feet when planting - Blend into soil at time of planting.
- 3 lbs. (a little more than 2 quarts) per 100 square feet after 12 weeks - Spread on surface when reapplying.