



If we don't need to add phosphorus to our lawns, why is it in **fertilizers**?

It is one of the three macronutrients plants need, along with potassium and nitrogen. Because most fertilizer is manufactured for national distribution, phosphorus is included in the product regardless of the phosphorus content of the soils in the location of use.

Why the **ban**?

The city is under a federal mandate to reduce phosphorus levels in the Kalamazoo River by 50 percent in order to meet water quality standards. Runoff from residential lawn fertilization is one of the sources of phosphorus entering the Kalamazoo River. To help achieve the goal, the City of Battle Creek passed an ordinance to eliminate the use of phosphorus in manufactured lawn fertilizers, effective March 2009.

Why is phosphorus bad for our **water**?

During normal watering or rainstorms, unnecessary phosphorus applied to lawns is washed into street storm drains, which empty directly into local creeks, and the Kalamazoo River — no filters, no treatment process. Once in the river, the extra phosphorus promotes the rapid growth of algae, which in turn crowds out beneficial water plants. As the algae dies off, the decaying process depletes the water of oxygen, harming fish and insects. If the problem becomes severe enough, water can become clogged with algae and appear like “pea soup” and scum. Fish kills can result. One pound of phosphorus in water can grow 500 pounds of algae!



Zero tolerance — the penalty for using **phosphorus fertilizer**

Each violation of this chapter will be a municipal civil infraction punishable by a fine of up to \$1,000.00. Any violation of this chapter shall be no less than \$100.00, except that the fine for each violation of this chapter by a commercial applicator, an institutional applicator, or a commercial seller shall be no less than \$250.00.

For more information, contact the Fertilizer Program Administrator at 269-966-3343.

City of Battle Creek

zero

phos-for-us

O R D I N A N C E

A ban on the use of harmful
phosphorus lawn fertilizers

to protect our water resources



What is phosphorus?

Phosphorus is a nutrient that stimulates root growth in plants. Phosphorus is naturally abundant in south central Michigan soils. The necessary level of phosphorus for healthy plant growth readily affixes to the soil. Plants are very efficient and effective at drawing phosphorus out of the soil.

What else do I need to know about the **ordinance**?

Fertilizer of any type may not be applied:

- Prior to March 15 or after November 15 in any year due to the inability of frozen soil to absorb nutrients.
- When conditions exist which can reasonably be anticipated to promote or create runoff, as for example, when heavy rain is forecast.
- On any impervious surfaces, such as on driveways, parking lots, streets, sidewalks, etc. If fertilizer does spill onto impervious surfaces, you must sweep it onto a turf area or put it in an appropriate container.
- Within 25 feet of any wetland, lake, river, stream, drain, watercourse, or storm water retention or detention basin.
- More than once every six weeks or more than five times during any one calendar year to a general turf area.



If I don't live along the **river** why does this matter to me?

Although you may not live directly along one of our many beautiful rivers or lakes in Battle Creek, the storm sewer system connects to them. When a pollutant gets into the storm sewer system, it flows to one of our rivers or lakes without being cleaned. Limiting pollutants into the storm sewer system helps keep the water of the Kalamazoo River watershed clean.

How do I know which **fertilizer** is okay to apply?

Check the label. On the bag you will see a series of three numbers. The first number indicates nitrogen, which is used to promote top growth. The middle number indicates phosphorus, which is used for root growth. The last number indicates potassium, for strong stems and disease resistance. To comply with the ordinance, the middle number must read "0" which means there is no phosphorus in the product. In general, check the turf grass fertilizers for zero phosphorus, and avoid "lawn and garden" fertilizers, which are very high in phosphorus.

Is there ever a time when I can apply **phosphorus** in lawn fertilizer?

The ordinance applies only to manufactured lawn fertilizers containing phosphorus. The following are exempt from the phosphorus ban:

- Garden and tree fertilizers
- Newly seeded or sodded lawns, limited to the first season of growing. (Most landscapers will add phosphorus at the time of seeding or sodding, which should be sufficient.)
- Lawns where a soil test within the last three years indicates inadequate phosphorus levels. The soil test must demonstrate the level of phosphorus to be less than or equal to 10 parts per million, in which case phosphorus may be applied in the amount and ratio specified by the soil test.

What else should I know about **lawn fertilizers**?

Once you have selected the no-phosphorus fertilizer product you prefer, remember:

- Store fertilizer in its original container in a dry, cool place prior to application.
- Fertilizer is an asset to your lawn, but you must be careful to keep it on your lawn and out of the storm drain system. Sweep up any spills immediately, including any granules on sidewalks and driveways. Never apply fertilizer right before a heavy rainstorm. Clean walks with a broom, not a hose. Remember, fertilizer that washes off your yard and into the street enters the storm drain system, which is a direct connection to local creeks and the Kalamazoo River.
- Apply less fertilizer, less often. If you fertilize just once each year, late summer or early fall is the best time to apply it because it helps your lawn repair itself and prepare for optimal growth in the spring.

- Take proper care of your lawn and you can reduce or eliminate the need for fertilizer. Keep your lawn at least three inches tall, and never cut more than 1/3 of the blade each time you mow. Taller grass has deeper, healthier roots, is more drought tolerant, and prevents weed infestations. When you do cut the grass, mulch the clippings back into your lawn. Mulching adds nitrogen and organic matter, which is necessary to prevent soil compaction.

