

## Managing Phosphorus on Lawns: Low P, No P, and “Lake Friendly” Programs

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Because of the concern of phosphorus (P) runoff from urban areas into streams and lakes causing algae growth and eutrophication, some states and municipalities are promoting a “no P” fertilization program for lawns.

Over-fertilization of lawns over the years can cause soil levels to build up in P. Research has shown that when soils become saturated with water to the point that excess water runs off the site, there is a potential risk that some soluble P can be pulled out of the soil and into the runoff water especially when soil test levels are in the high to excessive range for P.

Research has also shown that a dense stand of high quality turf has essentially no soil erosion and helps reduce total water runoff because of better water infiltration. So, if soil test levels become low for P (or any of the other important nutrients) such that turf growth and density decline, you could actually see an increase in P runoff due to poor cover and increased soil erosion and runoff.

Therefore, it is important that homeowners take a soil test periodically (every 3 or 4 years) to assess their soil test levels for P. If the test is high, there really is no need to add additional P and there could be adverse environmental consequences if you do. But if soil test levels are low in P, it is important to provide *adequate* amounts to assure good leaf and shoot growth to improve turf density.

### Ways of Reducing the Risks of Phosphorus Runoff from Your Lawn

- Take a soil test and apply P only if needed.
- If your soil test shows that you do not need to add additional P, check with your garden supply retailers for “no P” or “low P” lawn fertilizers
- Lime to adequately maintain a soil pH of 6.2 – 7.0.
- Apply fertilizer when the soil is dry to moderately moist and lightly water it in.
- Avoid applying fertilizer when the soil is saturated with water or just before an intense rainfall.
- In general, avoid over-watering your lawn. (This will reduce the risk of runoff.)
- Use a drop spreader rather than a spinner spreader to avoid accidental spreading onto impervious surfaces such as sidewalks and road gutters.
- Avoid mowing such that clippings are blown onto impervious surfaces. (Clippings contain P and also contribute to potential runoff.)
- Compacted soils decrease water infiltration and, thus, increase runoff potential. If your lawn is subject to a lot of traffic, it may be compacted, and you should consider aerating the soil once or twice a year. This can also help reduce thatch layers.

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**Warning! All pesticides are poisons. Use them only as a last resort!**

**Before using any insecticide, herbicide, or fungicide:** 1) Know your problem. Positively identify the insect or disease. 2) Monitor the problem. Is treatment necessary? 3) Use non-chemical cultural controls first. 4) If you must use a chemical control, *carefully follow all directions and safety precautions on the label!*