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✓ What it means?

✓ Why it's important?



✓ How it affects water quality?

How to keep your lawn green and our waterways blue!

Zero in the middle...what does it mean?

Nitrogen

• Produces growth of stalks, stems, leaves and grasses.

Phosphorus

- Helps plants during photosynthesis.
- Gives plants a rapid start, stimulates root formation, hastens maturation, aids blooming and seed formation.

Potassium (Potash)

- Stimulates early root or tuber formation.
- Essential for all underground vegetables and tuberous flowers.



Zero in the middle...why it's important?

•Too much phosphorus = Excessive aquatic plant growth and algae blooms

•Plants Die and Decay = Oxygen

•Fish and other aquatic life suffer

 One pound of phosphorus can support 500 pounds of algae.



Michigan - 30% of inland lakes (>5 acres) are Eutrophic or Hypereutrophic

Phosphorus Bans

 1977 - reduce allowable phosphorus content in cleaning agents and water conditioner products sold in phate Free Michigan to <0.5%



 2010 – Stores not allowed to sell detergent with >0.5% phosphorous (does not apply to commercial dishwashing products, and detergents for hand-washing dishes generally contain no phosphorus)

16 states - Illinois, Indiana, Maryland, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, Ohio, Oregon, Pennsylvania, Utah, Vermont, Virginia, Washington and Wisconsin



Michigan - Phosphorus Ban

<u>State Law - PA-299 of 2010</u>
 Adopted 16-Dec-2010



 Sec. 8512b. (1) Beginning January 1, 2012, except as provided in subsection (2), (3), (4), or (5), a person *shall not apply* to turf a fertilizer labeled as containing the plant nutrient available phosphate (P2O5).

Exceptions

- Soil test w/in last 3 years
 Berrien County Conservation District
- New lawn establishment



• Golf Courses





Zero in the middle...keep your lawn green and our waterways blue!

- Create "no-mow" areas with riparian/vegetated buffer strips.
- Install a rain garden or bio-swale.
- Use rain barrels and porous materials for driveways, patios and parking areas.
- Direct gutter spouts onto your lawn or landscaping (ideally a rain garden), not onto hard surfaces.
- Test soil to determine appropriate levels of nutrients needed.
- Choose organic fertilizing methods (e.g. compost tea, worm castings)





Additional Resources...











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