











### Conclusions

- Worldwide there appears to be **ample PR for the foreseeable future**.
  - Based on USGS 2012 production and **reserve** estimates- **319 years** of production
  - Based on USGS 2012 production and **resource** estimates- **>1,400 years** of production
  - **Oil, gas, & Zn** have shorter reserve lives than P (*Our Nutrient World, 2013*)
- PR reserves **unevenly distributed** globally
  - **Morocco, 75%**; China, 6%; US 2% (USGS, 2012 reserves)
  - US reserves estimated at **40 to 50 times** current annual PR production
- PR is a **nonrenewable resource** and deserves best stewardship efforts
- **Need for & value of P recycled from manure should increase**



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