

## **Facts about Phosphorus**

The Global Phosphorus Research Initiative in a 2010 report warned of an impending worldwide shortage of phosphorus. The Research Initiative is a collection of independent research institutes in Europe, Australia and North America.

### **Excerpts from the report:**

*There is no substitute for phosphorus in food production. Without phosphorus, we cannot produce food. Phosphorus is an essential element for all life.*

*The main source of phosphorus for fertilizer production today is phosphate rock – a non-renewable resource.*

*We believe we are likely to see a peak in global phosphate rock production within the next few decades after which demand will exceed supply.*

*There are currently no alternative sources of phosphorus.*

*Remaining phosphate rock reserves are controlled by just a few countries, including Morocco, China, South Africa, Jordan and the United States.*

*The U.S., formally the largest producer, consumer, importer and exporter of phosphate, now has less than a few decades left of its own reserves.*

*Phosphorus discharged from out-of-date sewage treatment plants, intensive livestock and poultry production and lost via agricultural erosion and runoff is contributing to a global epidemic of eutrophication in freshwater, estuarine and near shore ocean environments, and contributing to the loss of potable water resources, aquatic biodiversity and formation of large ocean “dead zones.”*

*Recovering phosphorus for reuse offers the added benefit of reducing such pollution.*

*There is a pressing need to develop a coordinated response to global phosphorus scarcity that includes: The development and implementation of sustainable technologies and strategies for the recovery of phosphorus from the food system for reuse in agriculture.*