



## **OSTARA NUTRIENT RECOVERY TECHNOLOGIES INC.**

**WHAT THEY DO** In 2005, Ostarra licensed from the University of British Columbia (UBC) a novel technology to recover phosphorus and nitrogen from municipal and industrial waste water and recycle them as eco-friendly fertilizer.

**WHY THEY DO IT** Phosphorus is a naturally occurring nutrient essential to plant life, but too much of it – from all sorts of human activity – can spur algae blooms that kill aquatic life. Bodies of water such as the Great Lakes are at increasing risk from phosphorus pollution.

**HOW THEY DO IT** Donald S. Mavnic, the UBC civil engineering professor who came up with the nutrient recovery technology, was awarded the \$25,000 Dave Mitchell Award of Distinction from the Ernest C. Manning Awards Foundation for the invention. Now licensed by Ostarra, the technology removes these nutrients from waste water systems with the company's Pearl fluidized bed reactor. The nutrients crystallize and grow like pearls to be harvested, dried, bagged and sold under the brand Crystal Green. The process removes up to 85 per cent of phosphorus and 15 per cent of nitrogen that would otherwise cycle back to the plant, says Debra Hadden, company spokeswoman. The fertilizer is also slow-release and highly insoluble in water, causing less run-off from agricultural use into waterways, the company says. Ostarra now has 14 commercial facilities in operation in North America and Europe.