First slow-release, renewable fertilizer now being produced

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Commercial production has begun of Crystal Green, the world's first slow-release, renewable and environmentally safe fertilizer. Crystal Green is the only slow-release fertilizer with a combination of nitrogen, phosphorus and magnesium (5-28-0 +10Mg); it is a clean by-product of a revolutionary, new wastewater treatment process, whereby the phosphorus and ammonia are recovered to create a fertilizer. The product can be used in the same manner as monoammonium phosphate or coated products, with the added benefit of high levels of slow release magnesium. There is no need to change equipment or application methods; Crystal Green can be substituted for any existing phosphorous source. "Its crystalline structure allows us to form a completely new chemistry for our industry. Yet unlike slow release products, it is far more predictable as it is not affected by excessive moisture, bacteria and temperature changes. And its longevity is as reliable as coated products. Your plants will see the difference, and the environment will thank you for both what it's made from, and how it releases. We just made your phosphorous fertilizer a lot more dependable with extra benefits to the environment," said Zablocki.

Only Renewable, Slow-Release Fertilizer on the Market

Phillip Abrary, President and CEO of Ostara, said the environmental advantages of Crystal

Green® result from its production process and from its zero impact on the water table. "Unlike fertilizers mined or derived from hydrocarbon sources, Crystal Green® is produced from a recycled and renewable product that is safe to use on plant material," said Abrary. "In addition, the product's slow release characteristics provide a source of phosphorus that will not leach into the water table.

"Compared to conventional fertilizer manufacturing, the production of Crystal Green® is highly energy-efficient and is produced without adding greenhouse gases to the atmosphere," said

Abrary. "No other commercially available fertilizer has renewable and environmental safety attributes comparable to Crystal Green®."

The benefits of Crystal Green® include slow release with proven full-season benefits and ease of handling.

Zablocki said the prill is a hard crystalline material (virtually dust-free) suitable for broadcasting, topdressing or incorporation. "Crystal Green® does not require any additional coating chemicals and is consistent in size and shape. And, advanced technology allows Crystal Green® to be manufactured in a size that suits a client's needs."

Since Crystal Green® is crystalline, blenders and mixers will not affect the integrity of the prill —unlike coated products. The fertilizer can be pre-incorporated into a soil mix without the possibility of premature release due to the heat of the mix, as Crystal Green® is not affected by excessive temperatures. Crystal Green® is available in various prill sizes from 70 SGN (0.7 millimetres) up to 240 SGN. Extensive independent lab testing has shown no pathogens or heavy metals present.

Water is the primary release agent but, unlike IBDU (isobutylidene diurea) and other slow release fertilizers, release of Crystal Green® is consistent regardless of the amount of moisture applied due to its crystalline nature.

Extensive third-party testing has shown longevity of up to eight months, making Crystal Green® a cost effective choice that lasts the full season.

Dr. Jim Owen, Assistant Professor of Horticulture at Oregon State University's North Willamette

Research and Extension Center, has conducted field trials on Crystal Green® and believes the product shows promise as a local and sustainable phosphorus source for containerized crop production.

"Crystal Green® is a unique, new, and locally produced fertilizer product that may have significant environmental implications" said Owen. "Crystal Green is an innovative new fertilizer product that is generated from local waste water treatment facilities to produce needed nutrients for regional agricultural sectors"

Several prominent Pacific Northwest fertilizer distributors are committed to adding Crystal Green to their product lists, including farmer-owned grower coop Wilco and Marion Ag Service, Inc.

According to Jeff Freeman, Regional Sales Manager of Turf and Ornamental Markets for Wilco,

Crystal Green® is the only product on the market that is slow-release, dust-free and environmentally friendly. "You really have to feel this product to believe it – the prills are hard like a crystal, and dust-free which makes it much easier to manage. Performance-wise, this product can save both time and money since you only have to use half of phosphorus volume on each application because it takes eight to nine months to dissolve compared to agricultural grade MAP or DAP."

The Technology behind Crystal Green®

Crystal Green® is being produced in suburban Portland at the Durham Advanced Wastewater

Treatment Facility in Tigard, Ore. by Clean Water Services, the water resource management utility serving more than 500,000 customers in urban Washington County west of Portland.

The Ostara technology harvests phosphorus and ammonia from municipal wastewater and adds magnesium, which causes a chemical reaction resulting in crystalline ammonium phosphate

hexa-hydrate.

Crystal Green® is a 99.9 percent pure compound, a slow release form of nitrogen, phosphorus and magnesium. It has been tested for purity by British Columbia's Ministry of Water, Land and

Air Protection, which is responsible for the management, protection and enhancement of the province's environment. Crystal Green® is actually cleaner than commercially available phosphates that are derived from mined phosphorous.

For further information about Crystal Green®, please visit the website at www.crystalgreen.com.

About Ostara

Ostara Nutrient Recovery Technologies Inc., founded in 2005, is a Vancouver-based company commercializing proprietary technologies that recover resources from wastewater and recycle them into valuable products. Ostara's recovery process, developed at the University of British Columbia, recovers pollutants that would otherwise be released into the environment, helps wastewater treatment plants reduce operating costs and meet environmental regulations, and provides municipalities and utilities with revenue from the sale of the recovered pollutants that are recycled into environmentally safe slow-release fertilizer, Crystal Green®. For more information: visit www.ostara.com and www.crystalgreen.com .

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