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OHD CLEAN TECH PROJECT COMPLETES TRIALS

OHD FERTILISER PROVED TO SIGNIFICANTLY INCREASES CROP YIELDS

$8 BILLION AUST & NZ FERTILISER MARKET TO BE DISTRUPTED BY OHD[1]

Key Highlights

- ✓ **$4 million + spent on OHD by the Company to date**
- ✓ **Initial horticulture and cereal crop trials completed with very positive results**
- ✓ **OHD usage confirmed to increase crop yields by ~49% and a reduction in fruit rot by ~53% to lead to a material increase in profitability for farmers**
- ✓ **Production of OHD bio-stimulant fertiliser costed at 1/10th the cost of traditional bio-stimulant fertiliser manufacturing process**
- ✓ **OHD to target disrupting the $8 billion Australian & NZ fertiliser market due to the significant manufacturing cost advantage**
- ✓ **Further trial planned to take place with broad acre cereals prior to planned construction of the 20 tonne/day OHD fertiliser plant.**

Greenpower Energy Ltd (ASX: Greenpower, "GPP", "Company") is pleased to advise that, further to the agreement executed with Thermaquatica Inc to jointly test and develop the Oxidative Hydrothermal Dissolution (OHD) process for the conversion of coal into liquid fertilizers the Company has successfully concluded its plant growth trials in conjunction with Monash University.

Bio-stimulant Market & The Advantage of the OHD Process

Bio-stimulant fertilizer (Fulvic acid) products for agriculture are proven however expensive to produce and despite having demonstrated improved plant growth and nutrient uptake benefits, are **generally reserved for high value crops**.

In the residential market Bio-stimulants are generally known by their market name of Seasol, Powerfeed, MegaKelp and SuperKelp and generally retail for $3,500 to $7,000 per 1,000 liters wholesale. The OHD process allows for the production of Bio-stimulant fertiliser at a **significant cost saving using coal as feedstock as opposed to seaweed and other decaying plant matter** with a production cost of circa $350 to $700 per 1,000 liters wholesale (1/10th versus traditional Bio-stimulants).

The significant cost savings achieved by the OHD process allow bio-stimulant fertilisers to now potentially be **used as an everyday fertiliser in broad acre and horticultural cropping operations where it was previously cost prohibitive to do so.** Once the Company

[1] 2016 Market size in Australia per the Australian Fertiliser Services Association

[2] ABS: Value Of Agriculture Commodities Produced in Australia, Year ended 30 June 2015

completes additional trials in the 2017 growing season it will move to the planned construction phase of a 20 tonne/day OHD manufacturing plant. Costing and feedstock economics will be released to the market very shortly.

Greenpower retains the exclusive OHD rights to the **Australian and New Zealand Market for the next 15 years** where thus far it has spent in excess of $4 million of shareholder equity developing and testing (research & extraction) the OHD project in conjunction with Thermaquatica Inc.

The Company is currently in discussions to broaden its OHD license beyond Australia and New Zealand given the Company was instrumental in funding the Process Demonstration Unit (PDU) housed at Thermaquatica Inc's headquarters in Illinois, USA.

Plant Trials

Greenpower coal from the Gippsland Basin in Victoria was subjected to the OHD process and the resulting bio-stimulant fertiliser liquid was applied to test crops at application rates of 10 and 20 L/ha. The results from the **trials on horticultural and cereal crops were impressive** and were headlined by:

- Application of the OHD bio-stimulant fertiliser at both rates **increased flower and fruit numbers**.
- **Increased fruit yield by approximately 49%** with 10L/ha and 41% with 20L/ha application rates compared to the untreated control plants.
- Application of the OHD bio-stimulant fertiliser **significantly decreased the incidence of fruit blossom end rot** caused by calcium deficiency in the fruit, with 12% of fruit affected with application of 10L/ha of OHD bio-stimulant fertiliser compared to 65% from the untreated control plants.
- Trials show the application of the OHD bio-stimulant at 10L/ha can be used to **increase the marketable fruit yield**.

The impact of treating horticulture crops during the trial was evident:

1. Fruit blossom rot affected tomato

2. OHD bio-stimulant treated tomato

The Company in conjunction with Monash University is planning further growth trials with OHD bio-stimulant fertiliser in 2017. The focus of these trials will be on broad acre cereal crops where Australia currently produces $11+ billion worth of cereals[2].

Greenpower Executive Director, Gerard King:

"Over 3 years of dedicated focus by the Greenpower management team and $4+ million in shareholder funds have been spent in getting the OHD process to point of successful trials which confirm the bio-stimulant fertiliser produced by the OHD process could be a competitive substitute to the current expensive alternatives used by the horticulture and cereal cropping industry.

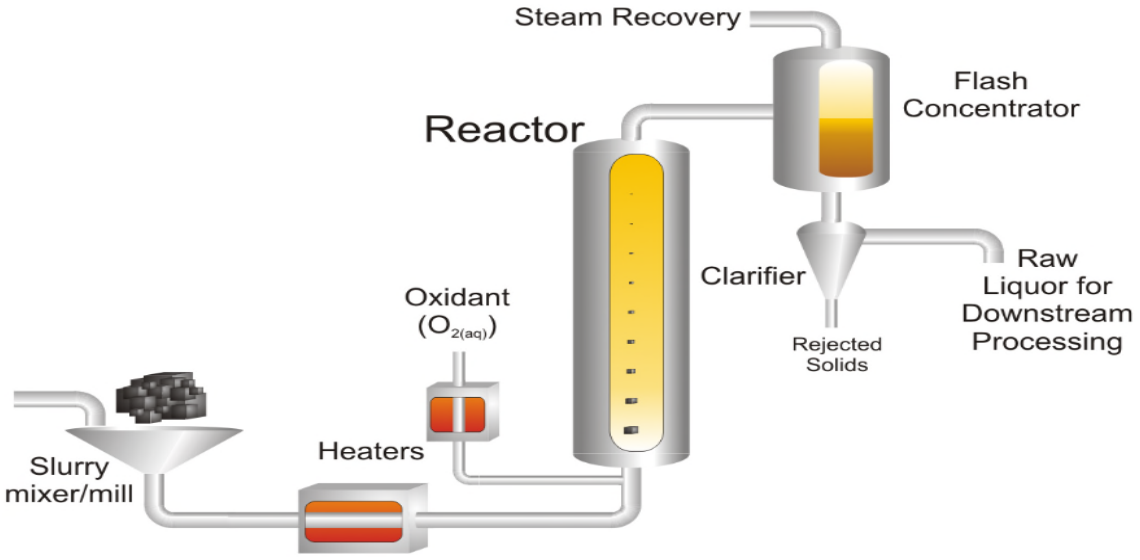
The Company looks forward to commencing broadened Phase II trials in 2017 on broad acre cereals where an $11+ billion market would benefit handsomely to a relatively inexpensive product that could have a material positive effect on crop yields as early trials suggest. Improving yields and profits for Australian farmers is an outcome that would clearly be welcomed by industry.

Special mention must go to Dr Alan Flavelle who has led the testing program alongside Thermaquatica and whilst no longer on the board has been instrumental in assisting shape the OHD process to where it is today."

Further Information

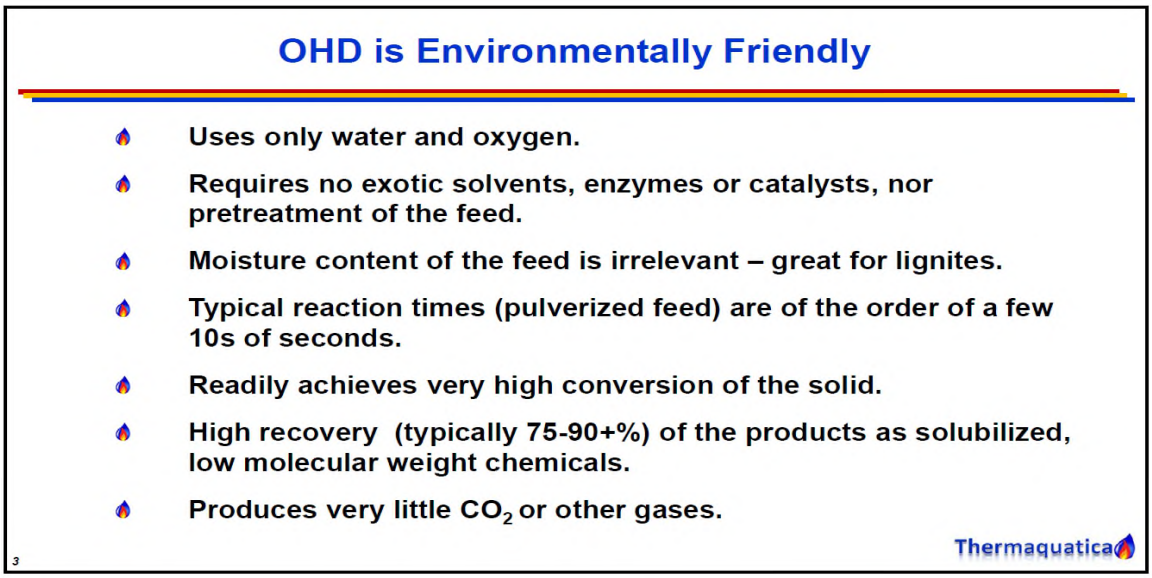
'Oxidative Hydrothermal Dissolution' [OHD] is the descriptive name given (by the inventor) to a process invented by Professor Ken Anderson, of Southern Illinois University (SIU) in the USA, patented by SIU, for converting carbonaceous material, such as coal, into a range of low molecular weight organic compounds. The process is exclusively licensed to Greenpower for use in Australia and NZ.

The process is operationally simple: crush the coal to powder, slurry it with water, feed the slurry into a reactor, apply heat and pressure while introducing liquefied oxygen. A schematic of the OHD process is as follows:



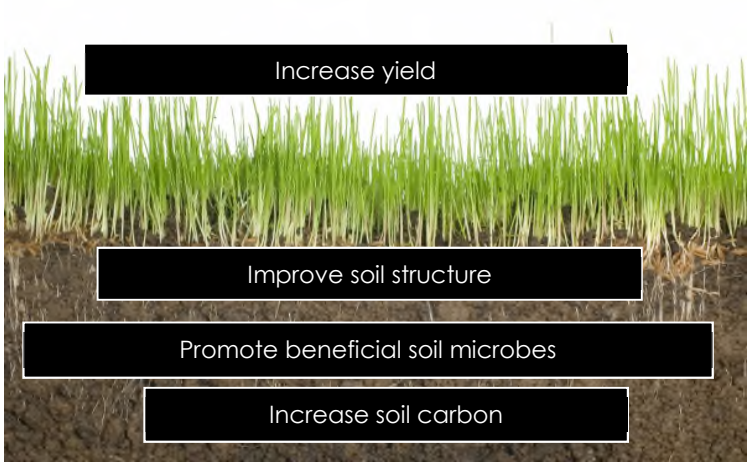
For lignite and lignin most the material is chemically converted [the OHD process] with a reaction time of less than a minute. The output from the reactor is a liquid which is about 98.5/99.5% water, and 1.5/0.5% by weight organic chemicals in solution (the bio-stimulant fertiliser).

The OHD process is safe, environmentally friendly and involves relatively inexpensive throughput costs:



Why Bio-stimulant Fertilisers

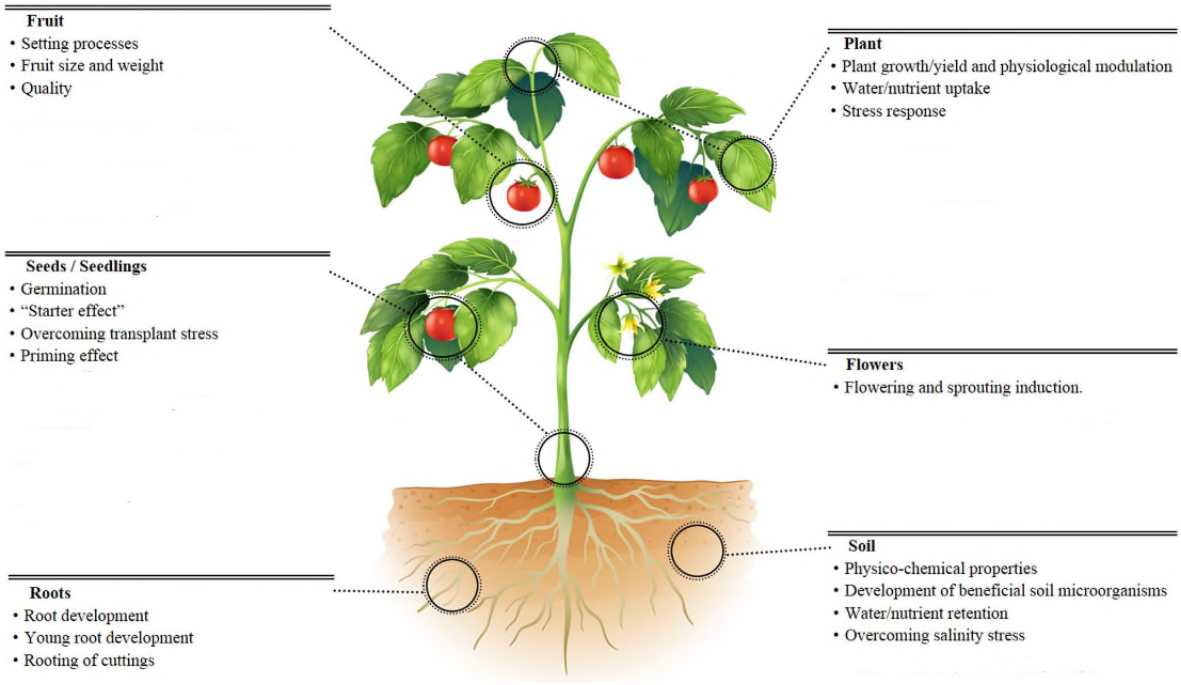
Bio-stimulants foster plant development in a number of demonstrated ways throughout the crop lifecycle, from seed germination to plant maturity. They can be applied to plant, seed, soil or other growing media that may enhance the plant's ability to assimilate nutrients and properly develop. Bio-stimulants are active on the plant in addition to the soil:



By fostering complementary soil microbes and improving metabolic efficiency, root development and nutrient delivery, bio-stimulants can:

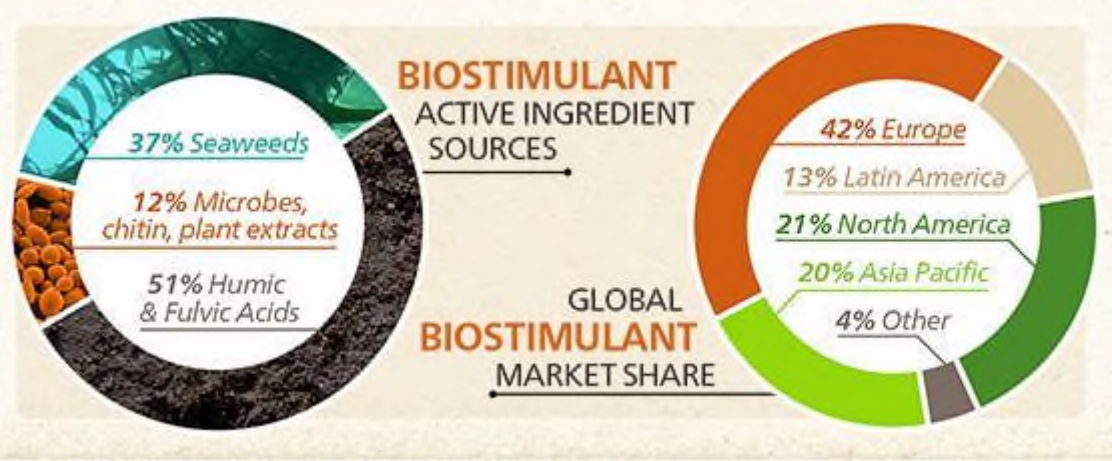
- Increase yield in terms of weight, seed and fruit set.
- Enhance quality, affecting sugar content, color and shelf life.
- Improve the efficiency of water usage.
- Strengthen stress tolerance and recovery.

Bio-stimulants use is growing rapidly due to multi-targeting where one application can assist both the crop (fruit yield and growth) in addition to the soil (water/nutrient retention and root development) which assists in the following years crop programs:



The accelerated use of bio-stimulants in agriculture is a recent phenomenon. In a major study Calvo, Nelson & Kloepper conclude: "Plant bio-stimulants are diverse substances and microorganisms used to enhance plant growth. The global market for bio-stimulants is projected to increase 12% per year and reach $2.2 billion by 2018."

Currently, humic and fulvic acids constitute more than half of the bio-stimulant market, with seaweed extracts being secondary.



Proof of Process

In 2013 Professor Anderson, having formed Thermaqautica Inc. to take the invention forward, built a small (5kg/hr) "Process Demonstration Unit"—aka PDU) to prove that the process worked beyond laboratory scale, This small plant has worked ever since and demonstrates, at an engineering scale, the process can be scaled up from laboratory scale

The resulting product is an aggregate of low molecular weight organic compounds dissolved in water. This mixture can function as an agricultural bio-stimulant in much the same way as commercially available products which are sold. Agricultural bio-stimulants are sold around the world and are known to stimulate plant growth and improve soil health and efficiency. The use of biostimulants is at present, because of cost, restricted to high value fruits and vegetables—e.g. almonds. Compared to existing fulvic acid products the OHD fluid can be produced at a fraction of the cost. So the immediate or primary product as it exits from the reactor has an immediate use, without further treatment.

Planned Australian Pilot Plant

In 2014, Greenpower and Ken Anderson's company, Thermaquatica Inc (TA) agreed on the scale of a pilot plant that then should be built (by GPP), on the basis it would

- demonstrate that the process could step up over 100 times from the PDU to a commercial/industrial scale;
- make a saleable quantity of primary material which could be sold as bio-stimulant, on a profitable commercial basis;

The decision was a pilot plant in Victoria's Latrobe Valley treating 20 tonne of as-mined Victorian brown coal per day, that would initially be operated on a batch basis but ultimately on a continuous basis as the market grew.

The concept design and the capex and opex estimates for a 20 tonne per day plant was initially commissioned by Thermaquatica to a US engineering firm named IMPACT Technology Development. IMPACT completed a techno-economic study, and GPP engaged HRL Technology of Melbourne to verify the plant design then cost it in Australia.

HRL are engaged in that process now and will present all costings and a financial model before the end of the year.

Further Progress Reports

Further reports on the progress of the Monash trials, and the design and costings of the pilot plant will be issued as these occur.

ENDS
For further information:
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