

smoke & char, nature's guardian

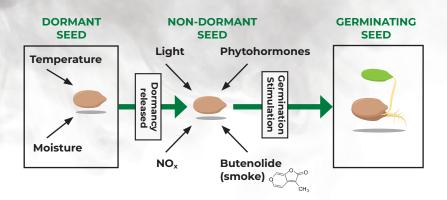


HORTICULTURE
Natural Smoke Alternatives



# **SMOKE & CHAR, NATURE'S GUARDIAN**

Through horticultural research in South Africa and further trials in 1998 conducted by Kings Park, Western Australia, it was identified that smoke compounds (Butenolide) within liquid smoke replicated natures bushfire regeneration process, triggering many beneficial effects, including improved germination, reconditioning of the soil and promotion of overall plant health, without releasing the emissions to atmosphere associated with fire.



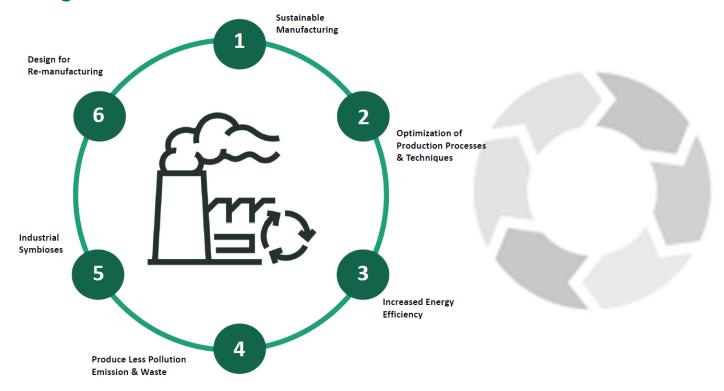


# NO SMOKE, NO FIRE

The Regen 2000 range of products are produced via a highly specialised closed loop manufacturing process designed for the supply of liquid smoke flavouring for the food industry. This process uses only a very select choice of hardwood species drawn from sustainable timber sources. The timber is then dried and roasted, to obtain the correct moisture content and temperature burn. The aerosol (gaseous) phase is then extracted and channelled through an absorption tower, whereby water is added to the smoke to secure the necessary smoke compounds upon the liquid carrier. From this point the smoke is filtered and distilled to remove any unwanted Polyaromatic Hydrocarbons (PAH's e.g. Benzo(a)pyrene) to ensure a natural clean smoke product.

Regen 2000 offers a range of sustainably sourced, natural germination, soil conditioning and plant health product solutions, suitable for small- and large-scale applications and available in both liquid and dry forms.

# CLOSED LOOP MANUFACTURING PROCESS working towards a cleaner world





SMOKEMASTER

# **GERMINATION**

## **SMOKEMASTER**

Regen 2000 Smokemaster is a water-soluble liquid smoke extract, containing many beneficial smoke compounds proven to trigger germination and early plant development in native and non-native varieties.

- + Improves & increases uniformed germination rates
- + Promotes healthy & accelerated seedling growth
- + Induces plant fungal infection response
- + Improves germination rates of difficult species

Product Code: SBREGSM Pack Size: 5kg, 10kg, 20kg, 220kg, 1000kg

# **Nursery (Native & Exotic Seeds)**

Regen 2000 Smokemaster has been designed to be applied as a seed soak prior to propagation or sprayed directly onto seedling trays after sowing.

**Application Rates** - For best results, sowing and smoking should be carried out when germination is most likely to occur. Seeds can be treated by soaking in a diluted solution for 6 – 36 hours until seeds begin to swell. Treated seeds should then be dried and sown when required. Alternatively, trays containing sown seeds can be sprayed with undiluted Regen 2000 Smokemaster and carefully watered for the first 6 – 10 days to ensure adequate penetration of smoke compounds.

Seed Soak - Dilute 100ml to 1 litre water. Soak seed as directed. Seed Tray - Spray undiluted 100ml to 1 sqm.

# **GERMINATION**

# **GERMINATOR**

Regen 2000 Germinator is a dry granulated form of smoked vermiculite, specifically designed to release smoke compounds once water is applied.

- + Improves & increases uniformed germination rates
- + Promotes healthy & accelerated seedling growth
- + Induces plant fungal infection response
- + Improves germination rates of difficult species

Product Code: SBREGGER
Pack Size: 25L



# **Nursery (Native & Exotic Seeds)**

Regen 2000 Germinator has the same density and consistency as commercial vermiculite and is suitable for hand or mechanical spreading applications to seed or tube stock trays.

Application Rates - For best results, sowing and smoking should be carried out when germination is most likely to occur. Once water is applied, the smoke is released onto the growing medium, depositing the required level of smoke compounds onto the surface to be drawn down onto the seed testa. **Seed Tray** - 120g to 1 sqm

# **PLANT HEALTH**

## **SMOKEWATER**

Regen 2000 Smokewater is a natural plant derived smoke extract, commonly known as liquid smoke, used as a bio-stimulant for improving plant quality and yields through nutrient uptake and tolerance to abiotic stress. Suitable for irrigation systems into hydroponic hot houses, automatic irrigation systems or as a foliar spray.

- + Acts as a biological trigger for plant performance
- + Assists with increased length and fresh weight of roots, number of leaves, total leaf area and stem thickness.
- + Assist with enhancing plant protein, carbohydrate and chlorophyll content
- + Promotes plant tolerance to abiotic stress
- + Improves microbial activity in composting

Product Code: SBREGSMWA Pack Size: 5kg, 10kg, 20kg, 220kg, 1000kg



**Application Rates** - Foliar application for abiotic stress management and plant health

# **Foliar Application**

Dilute 5ml to 1 litre water

## **Compost Application**

· Dilute 10ml to 1 litre water | Dilute 50ml to 1 litre water (odour control)



# **SOIL CONDITIONING**

## SHIELD

Regen 2000 Shield is a natural liquid smoke extract which has the ability to promote soil activity and nutrient availability, while effectively reducing pH and encouraging growth and stimulation of plants.

- + Improves soil quality & nutrient availability
- + Reduces high pH soil levels
- + Enhances root development
- + Promotes healthy & accelerated plant growth

Regen Shield is compatible with most cultivated plant varieties, however it is recommended to spot test to ensure plant compatibility. Spraying should always be directed at the soil, avoiding foliage as much as possible.

For application rates and instructions for use please refer to: www.graysonaustralia.com or via email to info@graysonaustralia.com

Product Code: SBREGSHI Pack Size: 5kg, 10kg 20kg, 220kg, 1000kg



CAUTION - DO NOT SPRAY ON MEMBERS OF THE BRYOPHYTE FAMILY MAY BE HARMEUL TO LIVERWORT, MOSSES AND HORNWORTS. IMPORTANT - REFER TO INSTRUCTION FOR USE.

**BIOCHAR** 

## SOIL CONDITIONING

# **BIOCHAR**

Regen 2000 Biochar is a completely natural form of organic carbon that can improve soil quality, structure and plant health.

Produced using only sustainably sourced hardwood timber via a controlled pyrolysis process, Regen 2000 Biochar offers a stable matrix which will remain in the soil for thousands of years.

Being a highly porous structure, biochar has the ability to absorb and store nutrients, water and beneficial microbes while increasing soil carbon levels.

- + Improves root development & growth
- + Improves soil fertility, structure & water retention
- + Enhances nutrient retention & availability
- + Increases soil carbon
- + Reduces soil emissions & odour

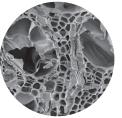
Application Rates - To ensure Regen 2000 Biochar is fully 'charged' with nutrients, it is recommended to blend biochar with a form of nutrient and allow for an activation period of two weeks, prior to use.

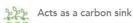
Potting Mix: 10-15% by volume (20L bag will treat 130-200L of potting media) Compost Blends: 20% by volume (20L bag will treat 100L of compost)

Top Dressing: 100g to 1sqm

For top dressing around existing plants add 100g per square meter, mulch and water in.









Increases nutrient retention & reduces leaching



Improves soil structure



Reduces N2O & CH4 soil emissions



Increases water retention



Acts as a pH buffer



## **GRAYSON AUSTRALIA**

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