



## GroGreen® Feed & Shine®

Environmentally kind products, keeping Rose and Buxus plants growing healthily, so reducing other inputs



### Company Background and Bio-active Philosophy

The GroGreen® range has been developed over recent years by the Danish company E. Marker A/S which has a proud record of producing bio-active products for forward-thinking plant managers and gardeners. Since the company was founded in 1998 the company's owner, Carsten Marker, has been designing, testing and manufacturing novel and natural amendments for growing media and foliar applications for the turf and amenity industry. The company's philosophy is that this more natural bio-fertility approach brings out the best in plants, allowing them to thrive and attain their full genetic potential, which in the long-term is more environmentally beneficial and also more cost-efficient.

From approximately 2015, using knowledge and expertise gained from the very exacting turf industry, E. Marker A/S has worked with scientists and practitioners to expand the company into the retail horticultural market, by producing unique and innovative 'environmentally kind' products, including this new GroGreen® range.

Originally designed for the more environmentally conscious Scandinavian countries, organic based products have been used to add not only micronutrients, but also beneficial plant extracts that can greatly enhance healthy plant growth. The target customer for the GroGreen® Feed & Shine® range is the professional or amateur gardener who are actively seeking to minimise chemical inputs, yet still maintain vigorous and healthy Roses or Buxus plants.

### GroGreen Content and Mode of Action

At the basic level, both of the GroGreen® products are essentially foliar liquid feeds for the plants, containing low levels of highly available nutrients (nitrogen, magnesium, iron, manganese, zinc and copper) in the liquid. However, just as important are the co-formulants of the essential plant oils that indirectly have health induced effects on the plants, aided by the surfactant which ensures the spread of the product across the leaf.

#### Feed & Shine® Roses: RTU Content

<b>Nutrients:</b>	
Total nitrogen (N) .....	0.060%
- of which urea (N) .....	0.060%
Magnesium (Mg) – fully soluble ..	0.004%
Iron (Fe) – fully soluble.....	0.001%
Manganese (Mn) – fully soluble ..	0.002%
Zinc (Zn) – fully soluble .....	0.002%
Copper (Cu) – fully soluble.....	0.0025%

<b>Non-nutrients:</b>	
Tea tree oil .....	0.005%
Citronella oil.....	0.005%
Clove oil .....	0.005%
Surfactant .....	0.010%
Seaweed extract.....	0.0175%

pH: 7.5  
Colour: Green

These uniquely combined ingredients both feed the plants and helps to keep the leaves a healthy and robust green colour throughout the growing season. Naturally, the effective fertilising nutrients removes any deficiencies, though it is the activity of the essential oils on the surface of the plant leaves that helps the plant to withstand potential infections before they even initiate themselves, which gives the plant significant health advantages.

#### Feed & Shine® Buxus: RTU Content

<b>Nutrients:</b>	
Total nitrogen (N) .....	0.020%
- of which urea (N) .....	0.020%
Magnesium (Mg) – fully soluble ..	0.001%
Iron (Fe) – fully soluble.....	0.001%
Manganese (Mn) – fully soluble ..	0.001%
Zinc (Zn) – fully soluble .....	0.001%
Copper (Cu) – fully soluble.....	0.001%

<b>Non-nutrients:</b>	
Tea tree oil .....	0.003%
Citronella oil.....	0.003%
Clove oil .....	0.003%
Surfactant .....	0.010%

pH: 4.0  
Colour: Green

### Researched, Trialled and Proven

To guarantee plant safety and efficacy, both GroGreen® products have been successfully trialled and tested in a UK plant nursery trials over two years. Untreated and treated controls were put in place, so optimum application rates were fully evaluated. [Trial results are available in separate reports]

Feed & Shine® Roses has already been successfully sold in Denmark, Sweden and Germany for 2 years, since 2018. Feed & Shine® Buxus is launching everywhere in 2020.

### Application Methods, with Key Advice

The application methodology for the GroGreen® Feed & Shine® products is simple:

1. Following instructions on the RTU bottle or concentrate bottle to get correct application rates
2. Using a fine mist of liquid, the product should be applied to cover the foliage of the whole plant.
3. Application does not need to be heavy (avoids wastage), just apply onto foliage up to 'leaf run-off'
4. Applied regularly, once a week is best, every fortnight should be minimum during main growing season

Finally, there is some key advice for achieving the most successful GroGreen® applications:

- \* be sure to only apply the products in dry weather and to dry plants, with no rain forecast for 12 hours
- \* remember to shake the bottle well before mixing or application



### Expected Outcomes and Benefits

#### Effectiveness:

- ✓ Plants receive nutrients they need to grow healthily, which are often unavailable from soil or compost
- ✓ As a consequence, the leaves of the plants look greener with a more appealing shine
- ✓ A secondary effect on plant health is the ability of essential oils to assist plants in thwarting pathogens

#### Environmental protection:

- ✓ Removes, or greatly reduces, the need to use other environmentally damaging chemical products
- ✓ In turn this reduces the need to buy, store and apply additional inputs that all contribute to garden waste
- ✓ GroGreen® works on the plants it is applied to and there is no risk to neighbouring plants or wildlife

#### Cost Efficiency:

- ✓ Other significant costs of using conventional crop protection methods or plant losses are greatly reduced
- ✓ GroGreen® products are supplied in not only the 'Ready-To-Use' form, but cost-effective concentrates

### Product Availability

GroGreen® Feed & Shine® Roses and Feed & Shine® Buxus products are available from:  
[www.grazers.co.uk/grogreen](http://www.grazers.co.uk/grogreen)

The GroGreen® range will also be supplied through garden centre outlets as demand increases.