

SM6

Organic Seaweed Extract



**Plant Growth Stimulant
for Grape Vines**



BG No 479

INTRODUCING **SM6**

A PLANT GROWTH STIMULANT

Plant growth stimulants are either synthetic compounds or plant hormones that modify plant physiological processes. They can regulate growth by mimicking hormones, by influencing hormone synthesis, destruction, translocation, or possibly by modifying hormonal action sites.

It can be said that all hormones regulate growth but not all growth regulators are hormones (Hartmann & Kester). Auxins, cytokinins and gibberellins have specific roles in plant growth, whether it be root formation, shoot growth, leaf and fruit abscission, cell growth and differentiation, stem elongation and many more effects.

SM6, a natural plant growth stimulant, is manufactured from a combination of seaweed varieties harvested off the Atlantic coast of Ireland and applied to an extensive range of crops world wide.



Aqueous extraction is used to make a unique low pH product, readily available to plants, and which contains 30% soluble seaweed solids. **SM6** contains cytokinins and betaines which have been isolated from seaweeds.

Betaines are considered the main active ingredient in seaweed extracts and are particularly prevalent in **SM6**.

Betaines are modified amino acids which act in a similar manner to cytokinins (Wheeler 1973). Glycine betaine, in particular, assists in the plant's osmotic process, helping treated plants to withstand different forms of stress.



Other natural ingredients in **SM6** include trace elements and sugars. However, apart from food grade preservatives, nothing is added, making **SM6** eminently suitable for application to organically and conventionally grown crops. **SM6** is registered for use on organic crops in several countries including New Zealand (by Bio-Gro).

SM6 encourages:

- plant cell division
- enlargement of rooting area
- maximum photosynthetic activity from increased chlorophyll content of foliage
- build up of soil microbial activity
- stimulation of plants Systemic Acquired Resistance to pest and disease attack

Other positive benefits will follow:

- improved nutrient uptake
- improved marketable yield
- longer shelf life of produce
- increased resistance to all forms of stress
- build up of fruit bud for following season



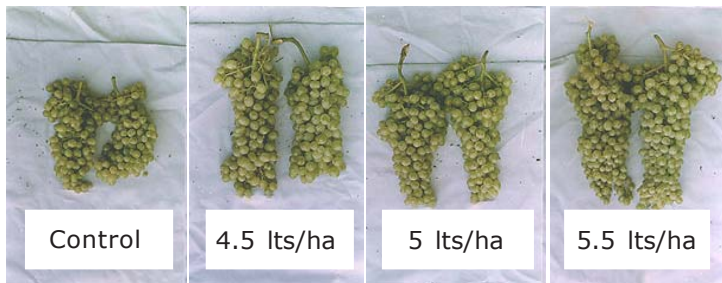
The Benefits of Using SM6 on Vines

SM6, as a natural product, is environmentally friendly and an invaluable aid for vine production, both organic and conventional. Seaweed extracts have been widely used on vines for a number of years now but with the increasing demand for organic wine, together with the general move to reducing the reliance on chemical inputs, more and more vine growers are discovering the value of seaweed.

Cumulative Benefits:

The use of **SM6** builds up the beneficial microbial and fungi population within the plant root zone, particularly where it is applied through fertigation. Regular use, both within the season and from year to year, reinforces these benefits and leads to improved soil fertility and a corresponding reduction in chemical inputs.

Practical results using **SM6** on Vines



Grape Trial

Table grapes were treated over two years with various rates of **SM6**

| | <i>yield kg/vine</i> | | <i>berry wt/grms</i> | |
|----------------------|----------------------|---------------|----------------------|---------------|
| | <i>year 1</i> | <i>year 2</i> | <i>year 1</i> | <i>year 2</i> |
| control | 16.3d | 15.2d | 7.3c | 7.1d |
| SM6 4.5 lt/ha | 20.5c | 18.9bc | 12.2a | 11.5a |
| SM6 5 lt/ha | 22.6a | 21.0a | 12.4a | 12.1a |
| SM6 5.5 lt/ha | 21.8b | 20.4b | 11.7a | 10.7b |

Means with different letters are significantly different at 5% level

SM6 increases crop yield and quality by stimulating the vine to maximise photosynthetic activity

SM6 has been shown to provide protection against marginal frosts, especially important early in the season



SM6 encourages healthy growth enabling the vine to withstand stress conditions including water shortage, temperature extremes and pest and disease attacks

SM6 applied with other foliar nutrients will enhance their uptake by the vine

SM6 applied through fertigation will stimulate root production, particularly important in the establishment of a new plantation



SM6

Application Rates and Timing Vines

The best results are achieved by using **SM6** regularly throughout the crop life, applying little and often.

Apply 1.5 lt/ha at least four times, key crop stages are:

- Early foliage
- First flower
- Fruit set
- Berry development

Other applications can be made to suit specific situations such as:

- Prior to anticipated frost
- Environmental stress
- Pest and disease induced stress
- Crop load

SM6 may also be applied through fertigation systems at a rate of 1lt/ha, once a month

Directions

SM6 is normally applied in 220-440 lt/ha water.

Shake well before use.

Avoid spraying in the middle of the day during hot, sunny periods.

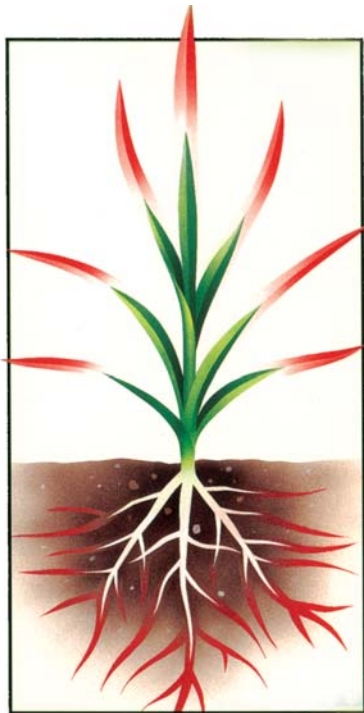
Compatibility: SM6 may be mixed with most other spray materials unless otherwise specified by the manufacturer concerned. If in doubt consult your distributor.

Distributed by

Fruitfed Supplies


PGG Wrightson

Registered Office
Fruitfed Supplies
PO Box 2116, Auckland 1140



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Organic Seaweed Extract

Produced in the UK by


Chase Organics
IAN ALLAN GROUP