



FORTIFLO  
**Horticultural**

Product Guide



*OMEX operates in over 85 countries throughout the world manufacturing liquid fertilisers and foliar health promoters for the agricultural, horticultural and amenity sectors.*

**OMEX Agriculture** is a major manufacturer of liquid fertilisers in the UK. OMEX offers the farmer a “Total Crop Nutrition” package through its range of unique Nitroflo liquid nitrogen fertilisers, Multiflo NPK liquid fertilisers, Fortiflo foliar nutrients, health promoters and SAP testing services.

**OMEX Horticulture** offers a complete nutrition and advisory service to growers in the soft fruit, top fruit, ornamental, protected salads and turf & amenity sectors.

**OMEX Environmental** is at the cutting edge of anaerobic digestion, developing bio-available micronutrient supplements to maximise the efficiency of AD plants. OMEX Environmental also develops and markets a range of nutrients and neutralisers for all types of waste water. The company also supplies deicing agents for airport runways, roads, bridges and car parks.

**OMEX Agrifluids** markets speciality fertilisers in over eighty five countries around the world, working closely with distributors to provide excellent technical solutions to growers. The product range includes foliar fertilisers, plant health promoters, biostimulants, organic fertilisers and soluble powders.

**OMEX Agriculture Inc (Canada)** manufactures and markets speciality fertilisers throughout Canada and the northern states of the USA. Providing a complete range of seed primers, starters and foliar, the programmed approach to crop nutrition produces maximum yields in short growing seasons.

**OMEX Agrifluids Inc (USA)** based in Selma, California, Agrifluids Inc manufactures a range of foliar fertilisers and fertigation products.

**OMEX Agrifluids do Brasil Ltda** provides a wide range of crop nutrient products for application via soil, seed and the crop canopy, specialising in crop health promotion and optimising plant nutrition.



# CONTENTS

- 4 Foliar Uptake of Nutrients & EBA Technology
- 5 Significance of substrate
- 5 Research and Development
- 6 Suspension and Emulsion Formulations
- 6 Organic Products
- 7 SAP Testing Services
- 8 Nutrient Deficiencies
- 12 OMEX Foliar Product Range  
Nutrient Levels

## 14 Calomex 105

## 16 O-Mix Soluble Powders

## **Biostimulants & Quality Improvement**

- 18 CalMax® Ultra
- 20 Catalyst
- 22 K-Humate®
- 24 K50
- 26 Kelpak®
- 28 Kickstart®
- 30 O-Phyte
- 32 Zynergy®

## **Foliar Nutrition**

- 34 Bio 20
- 36 SuperMn

## **Foliar Nutrition**

- 38 Folex® Range
- 40 Folex® MU35
- 42 Karb Konverter
- 44 Sulphomex®

## **Organic Range**

- 46 Biomex Starter
- 48 Gard KLD
- 50 Gard S
- 52 Greenside
- 54 Kelpomex

## **Adjuvants & Wetters and Water Conditioner**

- 58 Kobra
- 60 SW7
- 62 DeSaltus 2.0

- 64 Product Compatibility Guide
- 66 Tank mixing with Pesticides and  
Application Guidelines
- 67 Packing and Pallet Sizes

# Foliar uptake of Nutrients and EBA Technology



Foliar fertilisation is widely used as a standard practice in many crops throughout the world, and is especially valuable in particular situations:

- When conditions limit the uptake of nutrients from the growing media through plant roots.
- When the availability of nutrients from the soil is too low, for example due to leaching or lock-up.
- During short term peak demand, such as periods of rapid growth, or during fruit formation.

In addition, foliar fertilisation is potentially more targeted and efficient and so, more environmentally friendly than soil applications. Foliar nutrients can also be used to increase the content of essential elements such as zinc and selenium in human and animal food, and to improve general crop health and quality.

Many factors can affect the efficient uptake of foliar nutrients through plant leaves, and it is not simply a matter of applying the cheapest ingredients in the simplest form at a time to suit the grower. Scientific studies have shown the following factors can all have a significant effect on the outcome:

- The type of nutrient salt used, as different forms can have markedly different rates of uptake.
- The use of surfactants in the formulation to improve spreading, penetration and rain fastness. The greater the contact between the droplet and the leaf surface, the better the chance of uptake.
- The size of the molecules in the formulation - larger materials cannot easily pass through the cuticle and stomata in the leaves.
- The humectancy of the formulation - the longer the time the application remains liquid on the leaf surface, the greater the chance of uptake.



- Other refinements can improve nutrient transport and reduce the risk of scorch in tank-mixes or high light intensity situations, such as using synergistic multi-form nutrient sources, and including organic fractions.
- Spraying plants under favourable environmental conditions.
- Using prophylactic foliar treatments during the growing season to preserve nutrient status rather than waiting for symptoms of deficiency and the subsequent loss of yield and quality.

OMEX produces a range of speciality formulations which incorporate all of these refinements: the best choice of effective ingredients; synergistic combinations of nutrient sources; improved spreading and penetration; and organic enhancement.

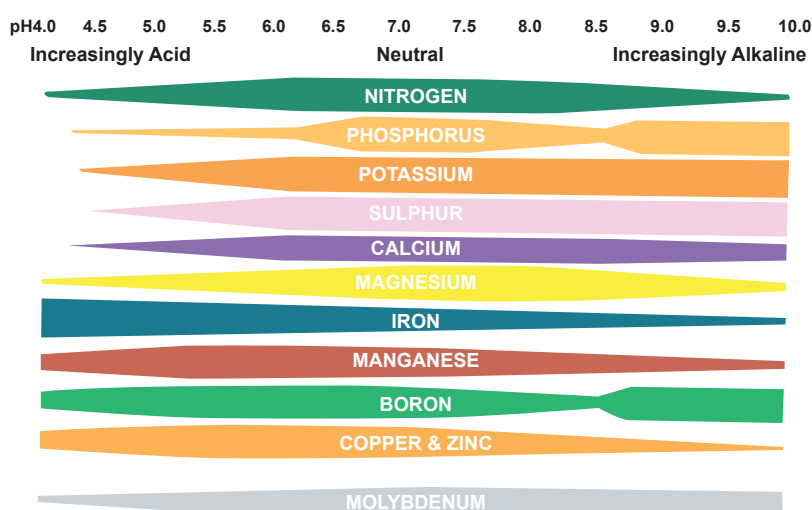
This is an unbeatable combination called Enhanced Bio-Availability - EBA<sup>®</sup> Technology.

# Significance of pH in the Growing Media

The pH of the rootzone has a significant effect on the ability of crops to extract the essential elements for healthy growth. The chart below shows the relative availability of plant nutrients at various growing media pHs. The wider the bar the greater the availability of the nutrient and the narrower the lower the availability.

As well as coping with the change in availability of nutrients, crops differ in their relative tolerance to

rootzone pH. Field crops can be treated with either sulphur or lime to lower or increase the pH of the soil respectively. In substrate grown crops, pH can be influenced using acid applied via the fertigation, in both circumstances, the availability of some nutrients can be reduced, and crops will require treating with foliar fertilisers. During sub-optimal growing conditions foliar fertilisers help overcome any transient nutrient shortages.



## Research and Development

As part of the continuing commitment to deliver the very best foliar solutions, OMEX dedicates considerable resources to the research and development (R&D) programme to ensure that the OMEX range of products are used in an optimal manner to maximise yields and returns for growers. The studies within the OMEX R&D department include:

- Seed germination studies in the laboratory.
- Plant growth studies in a glasshouse environment.
- Replicated field trials in tunnel and open field crops.
- Optimising application techniques.

Independent and collaborative studies are conducted with UK and international partners to develop:

- Formulation improvements.
- Treatments for new crops.
- New product developments.
- Biostimulants to improve crop vigour, yield, quality and tolerance to abiotic stresses.
- Biopesticides.

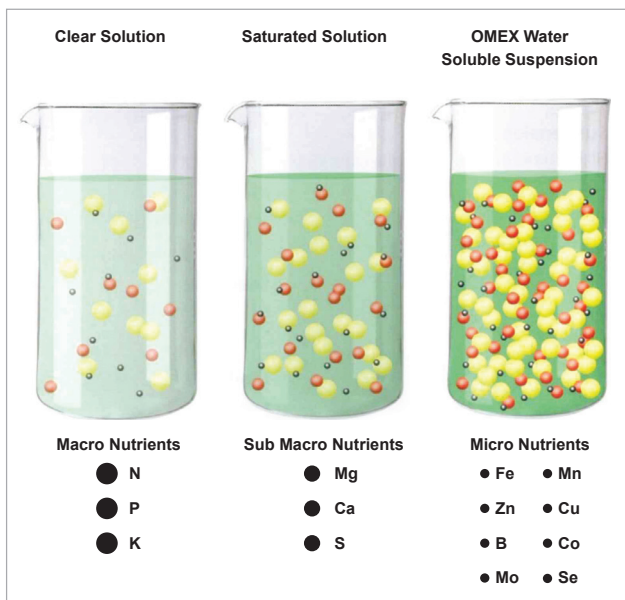
OMEX is fully committed to providing agronomically sound and scientifically proven solutions for growers both now and in the future.

# Suspension and Emulsion Formulations

OMEX specialises in the development and manufacture of super-concentrated liquid foliar fertilisers.

These products are characterised by very high nutrient concentrations, often close to those of solid fertilisers and several times that of normal solution fertilisers. Most products are 100% water-soluble for application by fertigation or foliar sprays.

The chemistry required to formulate OMEX water soluble suspensions is complex. Advanced gels are combined with high quality raw materials to produce stable formulations. Nutrients are chloride-free and micro nutrients are often chelated with EDTA as appropriate. In addition stringent quality control tests are performed at every step in the manufacturing process.



## Organic Products

Crops that are grown according to organic principles can achieve higher market prices but generally require a more proactive and hands-on approach to management. Inputs are often restricted by the licensing authorities and yields are generally lower than from conventionally produced crops.

OMEX has worked closely with the main licencing bodies in England, Wales and Scotland who have inspected the OMEX organic range of products and have certified their use in Soil Association and Organic farmers and Growers aligned farms.

They have also been used by SOPA members in Scotland. Please refer to the organic section beginning on page 46.

# SAP® Testing Services



OMEX offers a full nutritional analysis service using the facilities of the Scientific Agricultural Partnership (SAP) laboratories in King's Lynn. The laboratories specialise in the extraction, analysis and interpretation of sap samples taken from growing plants. Individual interpretation of each sample result is carried out by a team of qualified agronomists, allowing recommendations to be made for the active nutritional management of the crop.

Compared to conventional tissue testing, SAP analysis measures only the actual level of crop nutrients available for plant growth. Tissue testing reports the level of all the nutrients in the sample, including those locked up and unavailable for growth in cell walls and storage cells. SAP testing therefore offers a more accurate and topical assessment of the true nutritional status of the plant.

## The Facts

- SAP is a unique service using purpose built laboratories and sap extraction process
- 17 parameters are analysed to give a complete picture of the plant's nutritional status
- The crucial database used to interpret the sap analysis results has been built up over 50 years
- On farm trials have shown improvements in marketable yield and quality when the SAP system is used

## SAP Analysis

- The SAP analytical report will show the level of:
- **NO<sub>3</sub>, NH<sub>4</sub>, P, K, Mg, S, Ca, Na, Cl, Mn, B, Cu, Fe, Zn, Mo, Al and pH**
- The report provides an easy to interpret bar chart, with agronomist's comments



SAP ANALYSIS active crop nutrition		Email: sales@omex.com Tel: 01526396014		OMEX		
Element	Result PPM	Critically Low	Low	Normal	High	Recommendation of OMEX Follar product
N in Nitrate (NO <sub>3</sub> )	754.78					
N in Ammonium (NH <sub>4</sub> )	158.67					
Phosphorus (P)	265.09					
Potassium (K)	4796					
Magnesium (Mg)	165.06					
Sulphur (S)	267.7					
Calcium (Ca)	1221.81					
Sodium (Na)	470.65					
Chloride (Cl)	100					
Manganese (Mn)	2.86					
Boron (B)	0.4					
Copper (Cu)	0.84					
Iron (Fe)	2.3					
Zinc (Zn)	2.34					
Molybdenum (Mo)	0.1					
Aluminium (Al)	0.8					

3.93 (K:Ca Ratio)	29.06 (K:Mg Ratio)	754.78 158.67 NH <sub>4</sub> NO <sub>3</sub>	Brix 0%	SAP pH 6.53	EC 0 - mS/cm	Growth Rate						
						Poor	1	2	3	4	5	Good
						Water Status						
						Wilted	1	2	3	4	5	No Stress

OMEX Terms and Conditions... Omex Agriculture Ltd accepts no liability, in contract or in tort or otherwise, for any loss or damage or personal injury arising directly or indirectly out of the putting into effect of any of all of the recommendations contained in this report (whether by reason of the negligence of Omex Horticulture/Agriculture (its servants or agents or at all), other than for death or personal injury resulting from the negligence of Omex Horticulture/Agriculture within the meaning of section 1 of the Unfair Contract Terms Act 1977.

## When and How to Sample

- SAP sampling procedures are crop specific, full details and sampling instruction are supplied in the 'SAP Pack'
- Sample when problems are seen, when the crop is under stress, or prior to a growth

## SAPMIX

If necessary, a tailor-made product can be manufactured based on the results to suit specific crop or growing conditions and to help plants achieve maximum yield and quality potential.

Email [sap@omex.com](mailto:sap@omex.com) to order your SAP Packs, or telephone 01553 760011

# Nutrient Deficiencies

## Boron

### Function of Boron

Boron is synergistic with calcium and required for good plant health and growth and is particularly important in the development of fruit and foliage, translocation of sugars and reproductive processes.



Boron also assists with the regulation of water balance within the plant cells.

### Boron Deficiency

Boron deficiency manifests itself in stunted growth, thickening of the leaves and on the edge of leaves as a brown dried edge. Flower buds can be aborted in both deficiency and toxicity situation. Mainly seen on younger leaves. Deficiency can occur in a dry period following a wet winter or spring. Soils with a pH above 6.5 or low organic matter are prone to boron deficiency. **Apply CalMax Ultra or Bio 20 if encountering a deficiency.**

## Calcium

### Function of Calcium

Calcium is a primary constituent of all cell walls and membranes. Restrictions in the availability of calcium will adversely affect cell division, impair the structural stability and the permeability of cell walls. Increasing calcium levels in fruit aids post-harvest storage life and resistance to a range of physiological break down conditions.



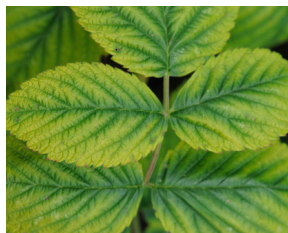
### Calcium Deficiency

Many horticultural crops face calcium deficiency issues. Shown in Tomatoes as Blossom End rot with a browning of the fruit base, and in lettuce with a leaf curl or tip burn predominantly in new growth. In monocotyledonous crops calcium deficiency is visible on the tips as browning. Many crops exhibit calcium deficiency due to lack of mobility of the nutrient or imbalances with other nutrients such as nitrogen, potassium or magnesium. Transportation of calcium is primarily in the xylem vessels of plants and is thus related to the transpiration rate. Calcium deficiency is often found following new leaf growth or during hot dry periods. **Apply CalMax Ultra if encountering a deficiency.**

## Copper

### Function of Copper

Copper is a vital element, essential for photosynthesis and for flower and seed formation. Copper also plays a role in promoting plant strength through its production of lignin, along with strengthening the vascular (water) tissues.



### Copper Deficiency

Deficiency in copper can sometimes be mistaken for frost or moisture stresses. Younger leaves initially develop a uniform, light yellow (chlorosis) colouration in the interior of the leaf whilst the outside margin remains green. Similar to zinc deficiency, this produces a halo effect. With severe deficiencies the interveinal areas become bleached. Copper deficiency can cause stunted or delayed flowers. **Apply Zynergy if encountering a deficiency.**

# Iron

## Function of Iron

Iron is a constituent of several enzymes and some pigments, and assists in nitrate and sulphate reduction and energy production within the plant. Iron is used in the formation of chlorophyll (the green pigment in leaves).. This explains why plants deficient in iron show chlorosis in the new leaves.

## Iron Deficiency

Iron deficiency is one of the most common nutrient deficiencies found in horticultural crops. Early symptoms are interveinal chlorosis in younger leaves, and if not dealt with the whole leaf turns yellow. **Apply Bio 20 if encountering a deficiency.**



# Magnesium

## Function of Magnesium

Magnesium is an element which is essential for a number of plant functions. Magnesium plays a major role in the process of photosynthesis. It is also involved with a number of enzyme systems and the movement of sugars from leaves to the rest of the plant.



## Magnesium Deficiency

Usually found on the older leaves of both ornamental plants and tomatoes, for example as an interveinal chlorosis. When severely deficient, leaves can abort and fall off. Spotting or interveinal yellowing are the first symptoms. If not dealt with efficiently the problem will move upwards, affecting other parts of the plant. Magnesium deficiency will seriously affect crop growth, quality and yield. **Apply Folex Mg 9 if encountering a deficiency.**

# Manganese

## Function of Manganese

Manganese is a micronutrient that is essential for many plant functions, particularly in enzyme systems.



## Manganese Deficiency

Manganese deficiency can occur in tomatoes, strawberries, cucumbers and, in rarer cases, ornamental bedding. Certain strawberry varieties have a high manganese requirement and symptoms can manifest themselves if drip feeding doesn't keep up with plant growth. Causes are seen only on younger leaves as a mottling with occasional spotting between the leaves in a sunken form. It's an element that can become toxic, affecting overall growth, for example - stunting. **Apply SuperMn if encountering deficiency.**

# Molybdenum

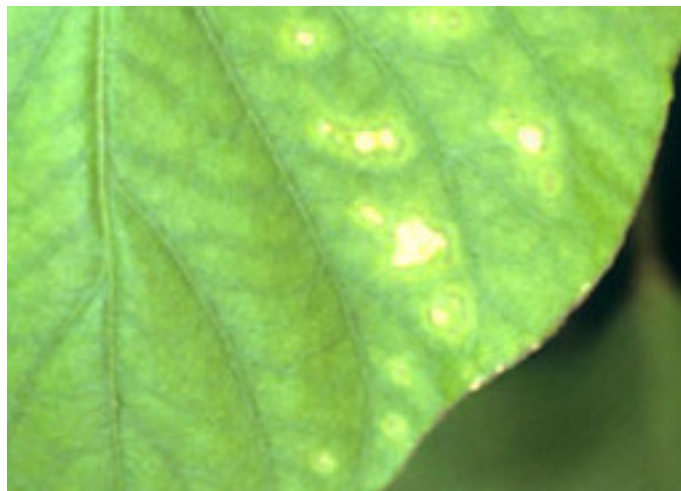
## Function of Molybdenum

Molybdenum is an essential component in two enzymes that convert nitrate into nitrite (a toxic form of nitrogen) and then into ammonia before it is used to synthesize amino acids within the plant.

## Molybdenum Deficiency

Deficiency is associated with low pH rather than high pH. In growing medias, it causes a whip like disfigurement and pale yellow leaves that will in time spread to an interveinal chlorosis.

**Apply Bio 20 if encountering a deficiency.**



# Nitrogen

## Function of Nitrogen

Nitrogen is the major element required by plants and is a major constituent of proteins, enzymes and amino acids.



## Nitrogen Deficiency

Nitrogen deficiency shows itself as very pale green or yellow leaves across the plant. In severe cases it will display as red/orange coloured leaves, particularly in species like Pelargoniums. Usually seen in the older leaves moving upwards. Leaves are usually smaller. **Apply either Bio 20, Folex N, Folex MU35 if encountering a deficiency.**

# Phosphorus

## Function of Phosphorus

Phosphorus (generally referred to as 'phosphate') is the essential building block for all living processes and is a key constituent of ATP, which fuels the energy process in plants. It is also key in most of the biochemical reactions in plants and is noted for its role in capturing and converting the sun's energy into useful plant compounds, from the beginning of seedling growth through to harvest. It aids plant and stem development and is essential for general health and vigour. Phosphorus stimulates root development and aids seed production.

## Phosphorus Deficiency

When deficient in phosphorus, foliage can be a dark green colour with the older leaves turning purple. This is mainly seen in tomato plants on the underside of the leaves, moving from the older leaves to new growing points, and can turn leaves necrotic. **Apply Folex P or Bio 20 if encountering a deficiency.**



# Potassium

## Function of Potassium

Potassium (generally known as 'potash') is an essential plant nutrient required in large amounts for effective growth and reproduction in plants. It is probably second only to nitrogen in terms of requirement and economic response. It affects plant shape, size and colour and generally improves the health and quality of produce. In photosynthesis, potassium regulates the opening and closing of stomata, and therefore regulates CO<sub>2</sub> uptake and it triggers the activation of enzymes and the production of ATP. Probably the key role is in the regulation of water in plants (osmo-regulation). Both uptake of water through plant roots and its loss through the stomata are affected by potassium and application is known to improve drought resistance. Potassium is essential at almost every step of protein synthesis and in starch synthesis (the driver of yield), where the enzyme responsible for the process is activated by potassium. **Consider applying Karb Konverter if encountering a deficiency.**

## Potassium Deficiency

An early indicator of potassium deficiency can be slow growth with browning leaf margins, not to be confused with Boron deficiency. Ensure a SAP analysis is conducted as potassium availability is linked with both calcium and magnesium availability.



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# Zinc

## Function of Zinc

Zinc is an essential micronutrient for plant growth and plays an important role as a component of the enzymes involved in several biochemical processes, including photosynthesis, sugar formation and protein synthesis. Zinc is also known to play a key role in plant disease defence mechanisms.

## Zinc Deficiency

Younger leaves initially develop a yellow interveinal chlorosis in the interior of the leaf, whilst the outside margin remains green. Look out for small areas of purpling. **Apply Folex Zn if encountering deficiency.**



## OMEX Horticulture Product Range Nutrient Levels

Product	Major Nutrients %w/v								
	N				P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	MgO	SO <sub>3</sub>	CaO
	Total	Ureic N	NH <sub>4</sub>	NO <sub>3</sub>					
<b>Biostimulants and Quality Improvement Specialities</b>									
CalMax® Ultra	14.5	2.0	1.0	11.5			3.0		22.0
Catalyst									
K-Humate						6.0			
K50	3.0	3.0				50			
Kelpak®	0.36				0.82	0.72			0.08
Kickstart	4.0		4.0		38.0	17.5			
O-Phyte					38.0	26.0			
Zynergy®								9.0	
<b>Foliar Nutrition - Specialities</b>									
Bio 20	20.0		8.6	11.4	20.0	20.0	1.5		
SuperMn	3.0			3.0			3.0	17.5	
<b>Foliar Nutrition</b>									
Folex® MU35	35.0	14.5							
Karb Konverter						39.0			
Sulphomex®	16.0		16.0					87.0	
<b>Organic Range (typical analysis)</b>									
Biomex Starter	2.5x10 <sup>10</sup> cfu/g (colony forming units per gram) spores of strain								
Gard KLD									
Gard S									
Greenside									
Kelpomex	0.36				0.82	0.72		9.0	0.08
Organomex 7-2-2	8.8				2.5	2.5	0.4	2.0	1.5
Organomex 6-2-4	7.5				2.5	5	0.4	2.0	1.5
Organomex 5-2-5	6.5				2.5	6.5	0.4	2.0	1.5
Organomex 3-1-8	4.0				1.5	10.0	0.4	2.0	1.5

Micronutrients mg/L						SG	Notes
B	Cu	Fe	Mn	Mo	Zn		
							12.7% humic acid, 55% Biostimulant
							26% potassium humate
						1.48 - 1.52	Plant available K <sub>2</sub> O
200	200	100	8000	400	4000	1.02 - 1.06	High auxin & amino acid kelp extract, typical analysis
						1.32 - 1.36	
						1.32 - 1.37	
	25,000				45,000	1.23 - 1.27	
290	730	1,460	730	12	730	1.50 - 1.54	28% Biostimulant
			115,000			1.32 - 1.36	
						1.22 - 1.28	20.5% available as long chain urea
						1.32 - 1.36	
						1.32 - 1.36	
Bacillus amyloliquefaciens						1.00 - 1.04	
						1.23 - 12.7	Garlic Extract
						1.23 - 1.27	
	25,000				45,000		
200	200	100	8000	400	4000	1.02 - 1.06	High auxin & amino acid kelp extract, typical analysis
390	15	320	31	3	40	1.23 - 1.27	Typical Analysis
390	15	320	31	3	40	1.23 - 1.27	Typical Analysis
390	15	320	31	3	40	1.23 - 1.27	Typical Analysis
390	15	320	31	3	40	1.23 - 1.27	Typical Analysis

# Calomex 105

## 💧 Liquid calcium nitrate (7.6%N 10.5% Ca w/w)

At present most growers utilise a liquid feed programme as their primary means of supplying plant nutrients. This is done using a combination of soluble fertilisers to provide the complete nutritional package for all crops and situations.

Such feed programmes generally include calcium nitrate, which usually has to be stored, mixed and fed separately to avoid crystallisation or sedimentation in lines and nozzles. The usual method is to dissolve calcium nitrate (15.5% N + 19% Ca) in water in tank A and all other nutrients in tank B.

Calomex 105 offers an alternative source of calcium as a bulk liquid which has potential benefits for most professional growers.



## 💧 Specification

- 45% Calcium Nitrate Solution
- CALOMEX 105 contains 105g/kg Ca, or 145g/kg CaO (149g/L Ca, or 206g/L CaO)
- CALOMEX 105 contains 7.6%N + 10.5%Ca (w/w)
- SG = 1.42
- 1kg of calcium nitrate = 1.27L CALOMEX 105 solution = 1.81kg

## ◆ Benefits of Calomex 105

- Bulk delivery into dedicated storage tank
- No staff or forklift needed to offload
- No bags, no pallets, no waste
- No dry inside storage required
- No manual handling
- Potential to dose automatically
- Reduced risk of incorrect dosing
- Potential to reduce labour costs
- Zero/trace ammonium content
- Made in the United Kingdom



## ◆ How to use Calomex 105

Calomex 105 can be used in any fertigation or hydroponic system.

The most common way of using Calomex 105 is to use alone in tank A in a two tank stock solution system.

**Use instead of bagged calcium nitrate, replace 1kg of calcium nitrate with 1.27L of CALOMEX 105.**

CALOMEX 105 can be transferred to stock tank A using a dispensing system, or be tapped off and added manually. (For more information on dispensing systems see the full Calomex 105 Product Guide).

CALOMEX 105 can also be fed directly into any feed system using appropriate dosing equipment if required.

If an ammonium source is required, consider using Folex P (14%  $\text{NH}_4$ ) or ammonium sulphate (8%  $\text{NH}_4$ ).

## ◆ Delivery

OMEX commits to delivering within 3-7 days of order or call-off.

OMEX make the delivery, the customer does not have to be on site to accept the load. After discharge the driver will attach the POD to the tank/leave at the site office/give to the customer, as appropriate.

Standard load size is 28t (19,700L approx.)  
Minimum load size for direct delivery is 12t (8,500L approx).

19% Calcium Nitrate	CALOMEX 105
1kg	1.27L
3kg	3.81L
5kg	6.35L
10kg	12.7L
50kg	63.5L

# O-Mix Soluble Powders

A range of water soluble powders made using the purest raw materials, blended to the highest standard for use in fertigation and supplementary liquid feeding.

## Crops

Most horticultural crops.

## Use

Water soluble fertilisers to suit most growing media and soils. Use as the basis for all feed programmes.

## Pack Size

25kg.

## O-Mix Range or O-Mix ADJUST Range

The choice of O-Mix range will depend on the source and quality of water to be used in the fertigation system. OMEX recommend a water sample is analysed regularly, to ensure the correct range and product is chosen. This is a service provided by OMEX, contact us for more details on [horticulture@omex.com](mailto:horticulture@omex.com).

## O-Mix Range

This range is recommended for use where water hardness is not an issue and where in softer waters calcium levels are low and pH adjustment is not required. In very soft waters (bicarbonate level 0-50 mg/L) the introduction of higher nitrate N feeds improves calcium uptake and increases cation exchange leading to better dry matter retention. Also lower levels of ammoniacal N help more sensitive species such as Erica, Antirrhinum, Lilium and Impatiens by reducing stress, allowing stronger growth. Feeds in this grade contain elevated levels of magnesium and appropriate micronutrients.

## O-Mix ADJUST Range

This range of soluble fertilisers is recommended for hard water areas (bicarbonate level 120-250 mg/L). Combining urea phosphate, an acidic form of nitrogen and phosphorus, these fertilisers improve nutrient uptake, help manage water pH, and reduce costly blockages in irrigation systems without the need for additional acid.

## Crop Specific Blends

- Blueberries: O-Mix 18-18-18 Blueberry and O-Mix 15-15-22.5 Blueberry.

Blueberries uptake nutrients in a low pH root environment so two blends have been created to accommodate blueberry production: O-Mix Blueberry 18-18-18 and O-Mix Blueberry 15-15-22.5.



## O-Mix Range

Product Name	Ratio	Analysis (w/w)					
		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	MgO	TE Mix	Average EC (µS)
O-Mix 27-7-11	4-1-2	27	7	11	1.6	TE Mix 1	676
O-Mix 20-8-20	3-1-3	20	8	20	0	TE Mix 1	954
O-Mix 18-18-18	1-1-1	18	18	18	1.6	TE Mix 1	486
O-Mix 15-5-30	3-1-6	15	5	30	1.6	TE Mix 1	876
O-Mix 12-6-36	2-1-6	12	6	36	1.6	TE Mix 2	986
O-Mix 6.5-11-30 COIR	1-2-5	6.5	11	30	5	TE Mix 2	1145

## O-Mix ADJUST Range

Product Name	Ratio	Analysis (w/w)					
		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	MgO	TE Mix	Average EC (µS)
O-Mix ADJUST 27-7-11	4-1-2	27	7	11	1.6	TE Mix 1	714
O-Mix ADJUST 20-8-20	3-1-3	20	8	20	1.6	TE Mix 1	1025
O-Mix ADJUST 18-18-18	1-1-1	18	18	18	1.6	TE Mix 1	778
O-Mix ADJUST 15-15-22.5	2-2-3	15	15	22.5	1.6	TE Mix 1	872
O-Mix ADJUST 15-5-30	3-1-6	15	5	30	1.6	TE Mix 1	973
O-Mix ADJUST 12-6-36	2-1-6	12	6	36	1.6	TE Mix 1	972

Analysis % (w/w)	B	Cu	Fe	Mn	Mo	Zn
TE Mix 1	0.031	0.020	0.154	0.100	0.013	0.027
TE Mix 2	0.026	0.019	0.272	0.114	0.008	0.076
Blueberry Mix	0.030	0.027	0.154	0.100	0.013	0.020

# CalMax<sup>®</sup> Ultra

Biostimulants & Quality Improvement

## Use

Protects against Blossom End Rot, Bitter Pit, Tip Burn and other calcium-related disorders. CalMax Ultra also increases fruit firmness leading to improved storability and shelf life.

## Crops

Most horticultural crops including protected edibles, soft fruit and tree fruit.

## Pack Size

10, 600, 1000 litres.

## Function of CalMax<sup>®</sup> Ultra

CalMax Ultra is a unique formulation containing calcium and AXM, which acts as a 'pump primer' to ensure calcium is effectively transported into plant cells even during periods of poor transpiration. The increased leaf and fruit calcium allows for longer storage life and less risk of physical damage as well as a greater resilience to physiological breakdown.



Analysis	w/w	w/v
Nitrogen (N)	9.6%	14.5%
Calcium (CaO)	14.5%	21.8%
Magnesium (MgO)	1.9%	2.9%
Manganese (Mn EDTA)	970 mg/kg	1460 mg/L
Iron (Fe EDTA)	490 mg/kg	730 mg/L
Boron (B)	490 mg/kg	730 mg/L
Copper (Cu EDTA)	390 mg/kg	580 mg/L
Zinc (Zn EDTA)	190 mg/kg	290 mg/L
Molybdenum (Mo)	10 mg/kg	15 mg/L

## ◆ Directions for Use

Use CalMax Ultra as directed below, in 200-600 L/ha water.

The spray tank should be filled with half the required water. After shaking the container, measure the required amount of CalMax Ultra and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Protected Edibles	6-12 applications from first fruit set	1-2.5	Apply at 14-21 day intervals. Use the higher rate and reduce the interval if crops are under stress or have undergone rapid growth.
Bush and Cane Fruit	From flower bud to end of season	1-2	Apply at 14 day intervals. Use the higher rate if plants are large or crops have undergone rapid growth.
Strawberries and Wine Grapes <sup>1</sup>	From flower bud to end of season	0.5-1	Apply 0.5 L/ha at 7 day intervals, or 1 L/ha at 14 day intervals.
Apples <sup>1</sup>	From pink bud to harvest	1-3	Apply first spray at pink bud, followed by petal fall and early fruit set, then at 14-21 day intervals.
Other Tree Fruit	3-4 applications starting 6-8 weeks before harvest	1-3	Apply at 14-21 day intervals. Use to reduce cracking in cherries and plums.

## ◆ Notes

For further information on compatibility and tank mixing refer to the section on pages 64-65, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk).

<sup>1</sup> For best results on yield and quality apply in sequence with Kelpak.

# Catalyst

Biostimulants & Quality Improvement

## Use

On crops grown in peat free growing media. Catalyst provides a range of organic acids and seaweed biostimulants to be incorporated into peat free or biologically degraded growing media. Improves plant rooting and general bioactivity within the root zone. Increases media nutrient and water holding capacity.

## Crops

A variety of horticultural crops grown in peat free growing media.

## Pack Size

10 litres.

## Function of Catalyst

Catalyst is a unique concentrated formulation of Humic Acids and Seaweeds. Applied directly to growing media either with fertigation nutrients or as a stand alone application. Catalyst acts as a biological primer for peat free growing media or degraded media that plants have difficulty rooting in by providing a range of organic acids beneficial to root growth and beneficial microbial colonisation. Catalyst should be used where plants are struggling to root due to unfavourable rhizosphere conditions.



Analysis	w/w	w/v
Humic Acids	11.5%	12.7%
Seaweed Biostimulant	50.0%	55.0%

## ◆ Directions for Use

Use Catalyst as directed below.

Catalyst is best applied as a drench or via fertigation at 0.020-0.1ml/L of water dependant on the crop and growth stage.

Can be applied with fertigation mixes to save extra applications and improve nutrient efficiency of applied nutrients.

Catalyst can be applied with liquid placement fertiliser or with O-MIX water soluble fertiliser or straights. Dilute 200-1000ml of Catalyst per 100L of stock solution required, dosed at 1:100 (1%) . Maintain agitation, apply within 48 hours of mixing.

Crop	Timing	Per 100L of Stock Dosed at 1:100 (1%)	Comments
Pot Bedding	Apply once every 1-2 weeks or as required	750ml-1000ml	Apply via fertigation or as a drench.
Hardy Nursery Stock	Apply once every 1-2 weeks or as required	750ml-1000ml	Apply via fertigation or as a drench.
Soft Fruit	Apply once every 2-3 weeks or as required	200ml-750ml	Apply via fertigation or as a drench. Applications may be more frequent during establishment or for propagation crops.

## ◆ Notes

Apply with Kobra growing media wetter to improve water spreading to ensure all growing media treated.

For best results apply via in line fertigation system directly to the growing media, Catalyst is compatible with Soluble NPK fertilisers or straights.

Requires stock tank agitation prior to dosing.

As with all seaweed based tank additives, pre-mixed stock tank should be used and applied to the crop within 48 hours of mixing.

# K-Humate®

Biostimulants & Quality Improvement

## Use

To stimulate greater plant root growth and support soil biological activity. To also facilitate the development of better soil structures leading to improved soil moisture and nutrient retention around plant roots.

## Crops

A wide range of crops including fruiting crops, vegetables, salads, vines, trees, and ornamental plants.

## Pack Size

20, 1000 litres.

## Function of K-Humate®

K-humate is a highly concentrated source of humic acids, sourced and produced in Australia. It provides a helping hand to farmers and growers to achieve greater crop production through a more effective use of applied fertilisers and maintaining long-term soil fertility.

The benefits of using K-Humate® include:

- Promotes soil agglomeration, creating better soil structure facilitating root penetration
- Opens heavy clays and hard, compact soils
- Improves water holding ability and soil wetting capability, improving water use efficiency
- Good chelating properties reduces nutrient losses through run-off and leaching
- Improves cation exchange capacity and releases a variety of nutrients
- Readily available carbon source
- Stimulate growth of beneficial soil fungi and bacteria, stronger root systems become increasingly resistant to abiotic stress conditions



Analysis	w/w	w/v
Potassium humate	23.6%	26.0%
Potassium (K <sub>2</sub> O)	5.5%	6.0%

## ◆ Directions for Use

For soil application:

Use K-Humate® as directed below, in 200-600 L/ha water.

The spray tank should be filled with half the required water. After shaking the container, measure the required amount of K-Humate® and add diluted K-Humate® to the spray tank whilst maintaining constant agitation. Add the remaining water to the correct dilution and spray.

For substrate application:

Please apply through fertigation at a 1% dilution and ideally through an in-line injection system.

- Shake well before use
- Dilute K-Humate® with water before application
- When mixing with other liquid fertilisers, test for compatibility with a small quantity in a jar
- Do not mix with low pH products
- Do not store mixed product
- For best results apply K-Humate® before fertiliser application

Crop	Timing	Rate L/ha	Comments
Soil grown crops	Apply as required throughout the growing season.	10-20L/ha	4 x 5L/ha over the growing season will be better than a single application of 20 litres/ha.
Substrate applications	Because of the reactivity of K-Humate with fertilisers, it is best applied at a 1% application rate.	1%	Due to compatibility concerns, it is best applied separately to the fertiliser treatments through an in-line injection system.

## ◆ Compatibility

K-Humate® is not compatible with many agricultural organic chemicals like insecticides, herbicides, and fungicides. Due to the high reactivity of K-Humate® and many of these organic chemicals, adverse reactions are likely to occur.

K-Humate® is also not compatible with many fertilisers, particularly when the solution pH is acidic, or contains calcium or phosphate.

It is compatible with UAN or urea solutions.

It is best to apply K-Humate® on its own where possible to minimise risk.

If mixing with other liquid fertilisers, test for compatibility with a small quantity in a jar.

## ◆ Notes

Store in cool dry conditions, preferable below 30°C.

# K50

Biostimulants & Quality Improvement

## Use

To correct nutrient deficiency and enhance crop quality.

## Crops

A wide range of crops including lettuce and leafy salads, bulbs and outdoor flowers hardy and protected ornamentals.

## Pack Size

10, 1000 litres.

## Function of K50

The main role of potassium in the plant is as a water regulator and in this role it influences many plant processes. It is particularly important in the regulation of cell water content, cell turgidity and rates of transpiration. The translocation of photosynthates and a number of plant enzymes all depend on potassium.

K50 is based on potassium carbonate. When applied to the surface of a leaf or fruit it creates a physical barrier that prevents or delays mycelial growth and infection. It is not a fungicide and has no fungicidal activity but when used in instances where fungicides are not available, K50 can provide a boost to plant health.



Analysis	w/w	w/v
Nitrogen (N)	2.0%	3.0%
Potassium (K <sub>2</sub> O)	33.0%	50.0%

## ◆ Directions for Use

Use K50 when potash deficiency is diagnosed or suspected, or as part of an integrated crop management programme. Foliar uptake will be enhanced by the addition of SW7<sup>1</sup>.

Apply 2-5 L/ha, in a minimum of 200 L/ha water. Small areas: rate in ml/L of water as below, apply to the point of run off. Do not exceed 10L per 100m<sup>2</sup> of crop.

The spray tank should be filled with half the required water. If applicable, add the required amount of SW7 to the water before the K50. After shaking the container, measure the required amount of K50 and add to the tank whilst maintainign constant agitation. Add remaining water to the correct dilution and spray.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Protected Edibles	As required	2		Apply when deficiency is suspected or diagnosed, repeat after 10-14 days.
	In periods of heavy fruiting	3		Benefits skin finish.
Lettuce and Leafy Salads	As required	2		Apply when deficiency is suspected, repeat after 10-14 days.
		5		Apply when deficiency is diagnosed. Repeat as necessary.
Bulbs & Outdoor Flowers	During bud initiation and main flowering period	2		Apply up to 4 applications at 10-14 day intervals.
Hardy Nursery Stock	As required	5	5	Apply when deficiency is suspected or diagnosed, repeat after 10-14 days.
	For hardening late season	3-5	3-5	3-5 applications from late summer at 10-14 day intervals.
Protected Ornamentals	From bud initiation	2	2	Apply up to 4 applications at 10-14 day intervals.
Soft Fruit and Wine Grapes	As required	3-5		Apply when deficiency is suspected or diagnosed, repeat after 10-14 days.

## ◆ Notes

Do not apply in tank mix with pesticides when crop is showing deficiency symptoms, is under stress, or in adverse weather conditions.

For further information on compatibility and tank mixing refer to the section on pages 64-65, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk).

<sup>1</sup> SW7 is an adjuvant designed to help with improved wetting and spreading of the spray solution on the leaf surface. SW7 should be added at 0.1% of the spray volume, e.g. 100 ml in 100 litres of water. Maintain agitation and apply immediately after mixing.

# Kelpak®

Biostimulants & Quality Improvement

**EFCI Register - FPR 2019/1009 -  
B-Kelpak / Kelpak 24201-09/12/2024-  
09/12/2029-DE.1843**

## Use

To enhance root growth which improves crop establishment leading to higher yield and better quality. Kelpak helps to increase plant tolerance to abiotic stress and improves pollen germination, pollen tube growth, fertilisation and fruit set.

## Crops

All horticultural crops.

## Pack Size

5, 20, 1050 litres.

## Function of Kelpak

Kelpak is a kelp concentrate which is manufactured using a unique cell-burst process without heat, chemical digestion or dehydration. This patented process ensures maximum retention of the delicate growth promoting substances found in this species of kelp. Kelpak also contains a wide range of nutrients, vitamins and amino acids.

The combination of natural active compounds impact upon plants in different ways according to the plant growth stage and condition. Phlorotannins improve root growth; polyamines help to reduce the impact and symptoms of abiotic stress and both promote pollen tube elongation resulting in better fruit set.



## Composition

Kelpak contains amino acids, carbohydrates, phlorotannins, polyamines and vitamins.

## Typical Analysis

### Nutrients

Nitrogen (N)	0.36%	Phosphorus	0.82%	Potassium	0.72%
Magnesium (Mg)	0.02%	Calcium	0.08%		
Plus micronutrients					

®Kelpak is a registered trademark of KELP PRODUCTS (Pty) Ltd  
P.O. Box 325, Simon's Town, South Africa 7995

## ◆ Directions for Use

Use Kelpak as directed below. Apply 2-3 L/ha for most crops, in 200-600 L/ha water. Small areas: rate (ml/L) as below, apply to the point of run off. Do not exceed 10L per 100m<sup>2</sup> of crop.

The spray tank should be filled with half the required water. After shaking the container, measure the required amount of Kelpak and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray. Adjust pH of spray solution to less than 7 if necessary.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Modules and Seedling Trays (All Crops)	As a root dip		10	Dip or wet module/seedling tray with solution before transplant.
	As a foliar spray		2-3	Apply before transplant, repeat 14 days after transplanting, use the higher rate in poor conditions.
Protected Edibles	7-10 days after planting or 4 true leaves <sup>1</sup>	2		Repeat after 14-21 days.
Field Vegetables	From 4 true leaves	2-3		Repeat after 14-21 days. Use the higher rate when growing conditions are poor.
Hardy Nursery Stock	As a root drench		2-3	Drench at 1L of diluted mix per m <sup>2</sup> of growing medium. Repeat after 14 days.
	As a foliar spray	3	3	Apply at planting, repeat at 14 day intervals up to 4 applications, or apply once after the second drench.
Protected Ornamentals	7-10 days after planting or 4 true leaves <sup>1</sup>	2.5	2.5	Repeat at 14-21 day intervals up to 4 applications.
Establishment of Soft Fruit, Tree Fruit and Vines	Bare root drench		10	Dip bare roots for 5 minutes before transplant.
	Soil drench		2-3	Drench at 1L of diluted mix per m <sup>2</sup> of growing medium
	Foliar Spray	3		Apply during early active growth following transplant application. Repeat up to 3 times at 14-21 days.
Established Soft Fruit <sup>2</sup>	From early flowering	2 or 3		Apply up to 6 applications 14 days apart. Apply up to 4 applications 21 days apart.
Established Tree Fruit <sup>3</sup>	See comments	3		Deciduous: Spray at 50% bloom, fruit set and 14 days later to increase fruit set and retention. Spray after set and repeat twice at 14 days to improve size Evergreen: Spray at pre-bloom, full bloom, fruit set, with a further application 14-21 days later if required.
Vineyards/ Wine Grapes	As a foliar spray	2-3	3	Apply at 5-10 cm shoot growth to improve bunch stretching. Spray 2 weeks before flowering and repeat at 30% flowering to improve berry set, berry uniformity and yield. Apply pre-veraison and at veraison to improve fruit sugar and colour (red varieties).

## ◆ Notes

- <sup>1</sup> If modules/seedlings received Kelpak before application maintain the 14 day interval.  
<sup>2</sup> For best results apply in sequence with CalMax Ultra.  
<sup>3</sup> Cherries - In a fast breaking spring reduce the interval to 7 days between applications.

Do not tank mix with copper based fungicides. For further information on compatibility and tank mixing refer to the section on pages 64-65, and for physical compatibility with pesticides refer to the website.

# Kickstart

Biostimulants & Quality Improvement

## Use

To stimulate root growth, improve establishment and improve the uptake and systemic movement of nutrient cations within the plant.

## Crops

A wide range of horticultural crops.

## Pack Size

10, 1000 litres.

## Function of Kickstart

Kickstart can be used on young plants, including recently planted out modules, to improve root growth and crop establishment. Application to mature plants will aid the uptake and movement within the plant of co-applied nutrient products, which can lead to stronger healthier plants more capable of withstanding abiotic stress.

## Phosphites as Biostimulants

Used at low rates on young plants, phosphites can act as biostimulants, promoting early root growth and plant establishment.

Phosphites are also highly systemic, capable of moving within the xylem and phloem. Consequently the plant can benefit from improved movement within the plant of partner cations such as Ca, Mg or Mn.



Updated to reflect the OMEX 2026 core range packaging rebrand.

Analysis	w/w	w/v
Nitrogen (N)	3.0%	4.0%
Phosphate (P <sub>2</sub> O <sub>5</sub> )	28.0%	38.0%
Water Soluble Phosphate (P <sub>2</sub> O <sub>5</sub> )	0.0%	0.0%
Phosphite (as P <sub>2</sub> O <sub>5</sub> )	28.0%	38.0%
Potassium (K <sub>2</sub> O)	13.0%	17.5%

## ◆ Directions for Use

Use Kickstart as directed below

Apply 1 - 4 L/ha, in 200-600 L/ha water. Small areas: rate in ml/L of water as below, apply to the point of run off. Do not exceed 10L per 100m<sup>2</sup> of crop.

The spray tank should be filled with half the required water. After shaking the container, measure the required amount of Kickstart and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Brassicas including transplanted modules	From 2-4 true leaves	1		To stimulate and improve establishment.
Lettuce & Leafy salads	Larger than 6-8 true leaves	2-4		Apply to maintain rate of growth if conditions are not conducive for optimum growth, or the crop is at risk of suffering from stress factors. Repeat after 10-14 days if conditions persist.
Hardy Nursery Stock	From 4 true leaves	2	2	Use when growing conditions prevent optimum growth and root development. Repeat at 10-14 day intervals if required.
Protected Ornamentals	From 2-4 true leaves	2	2	Use when growing conditions prevent optimum growth and root development. Repeat at 10-14 day intervals if required.
Soft Fruit	Shortly after transplanting	2		Use to promote root development if growing conditions are poor.

## ◆ Notes

For further information on compatibility and tank mixing refer to the section on pages 64-65, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk).

# O-Phyte

Biostimulants & Quality Improvement

## Use

To stimulate plant growth and improve the uptake and systemic movement of nutrient cations within the plant.

## Crops

A wide range of horticultural crops.

## Pack Size

10, 600, 1000 litres.

## Function of O-Phyte

O-Phyte can be used to improve root growth and crop establishment. Application to mature plants will aid the uptake and movement within the plant of co-applied nutrient products, which can lead to stronger healthier plants more capable of withstanding abiotic stress.

## Phosphites as Biostimulants

Used at low rates on young plants, phosphites can act as biostimulants, promoting early root growth and plant establishment.

Phosphites are also highly systemic, capable of moving within the xylem and ploem. Consequently the plant can benefit from improved movement within the plant of partner cations such as Ca, Mg or Mn.



Analysis	w/w	w/v
Phosphate ( $P_2O_5$ )	28.0%	38.0%
Water Soluble Phosphate ( $P_2O_5$ )	0.0%	0.0%
Phosphite (as $P_2O_5$ )	28.0%	38.0%
Potassium ( $K_2O$ )	19.0%	26.0%

## ◆ Directions for Use

Use O-Phyte as directed below.

Apply 1-4 L/ha, in 200-600 L/ha water. Small areas: rate in ml/L of water as below, apply to the point of run off. Do not exceed 10L per 100m<sup>2</sup> of crop.

The spray tank should be filled with half the required water. After shaking the container, measure the required amount of O-Phyte and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Modules and Seedling Trays	As a foliar spray		1-2	Apply before transplant repeat 14 days later, use the higher rate in poor conditions.
Brassicas, Lettuce and Leafy Salads	From 2-4 true leaves Larger than 6-8 true leaves	1 2-4		To stimulate roots and improve establishment. Repeat after 10-14 days if conditions persist.
Hardy Nursery Stock	From 4 true leaves	2-4	2-4	Repeat at 10-14 day intervals if required.
Protected Ornamentals	From 2-4 true leaves	2	2	Use to promote root development if growing conditions are poor.
Soft Fruit	7-10 days after planting, 2-4 applications	2		Use to promote root development if growing conditions are poor.
Fertigation, drip tape and trickle	As required	3-6		O-Phyte should be added to feed stock solutions at 0.3 L/100 L of stock solution.
Wine Grapes	From 4 fully developed leaves	2		Use to promote root development and cation movement.

## ◆ Notes

For further information on compatibility and tank mixing refer to the section on pages 64-65, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk).

# Zynergy®

Biostimulants & Quality Improvement

## Use

To correct nutrient deficiency and to improve plant health and tolerance of abiotic stress.

## Crops

A wide range of crops including cereals, potatoes, brassicas, legumes, vegetables, lettuce, leafy salads, soft and top fruit.

## Pack Size

5, 600, 1000 litres.



## Function of Zynergy®

This specially formulated combination of highly available copper and zinc is designed to form a key part of an integrated crop management programme to boost crop health and maximise yield potential.

Analysis	w/w	w/v
Copper (Cu)	2.0%	2.5%
Zinc (Zn)	3.5%	4.5%
Sulphur (SO <sub>3</sub> )	7.5%	9.0%

## ◆ Directions for Use

Use Zynergy when deficiency is diagnosed or as a regular maintenance treatment in conjunction with crop protection programmes during periods of rapid growth and fruit, grain or root formation.

Always add a non-ionic wetter unless in a tank mix with a pesticide.

Apply at 0.5-1 L/ha, in a minimum of 200L/ha water.

The spray tank should be filled with half the required water. If applicable, add the required amount of a non-ionic wetter to the water before the Zynergy. After shaking the container, measure the required amount of Zynergy and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Protected Edibles	From 7-10 days afterplanting	0.5-1		Repeat at 10-14 day intervals.
Lettuce and Leafy Salads	From 2-3 true leaves	0.5-1		Repeat at 1-2 week intervals. Do not apply alone without a wetting agent.
Field vegetables	From 2-4 true leaves	1		Repeat at 10-14 day intervals if required.
Soft fruit	From green bud	0.5-1	0.5-1	Repeat at 10-14 day intervals.
Tree fruit	Petal fall	0.5-1		Repeat at 10-14 day intervals.
Vines	As required	0.5-1		Repeat at 10-14 day intervals.

## ◆ Notes

Do not apply when crop is under severe stress, or in adverse weather conditions.

Zynergy is readily compatible with most herbicides, fungicides, insecticides, and foliar nutrients. For further information on compatibility and tank mixing refer to the web site [www.omex.co.uk](http://www.omex.co.uk).

For further information on compatibility, tank mixing and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk).

# Bio 20

Foliar Nutrition

## Use

As a general foliar feed and plant growth stimulant, particularly in times of stress, or in a regular nutrient management programme to boost a wide range of nutrient levels.

## Crops

All horticultural crops.

## Pack Size

10, 1000 litres.

## Function of Bio 20

Bio 20 provides the benefits of naturally occurring kelp and a balanced combination of macro and micro nutrients. The biostimulants and nutrients found in Bio 20 improve root growth and nutrient uptake to a greater level than when the two are applied separately. Bio 20 can be used to best effect when the crop is under stress. However, specific deficiencies should be treated with the relevant foliar product.



Analysis	w/w	w/v
Biostimulant	18.5%	28.0%
Nitrogen (N)	13.2%	20.0%
Phosphate (P <sub>2</sub> O <sub>5</sub> )	13.2%	20.0%
Potassium (K <sub>2</sub> O)	13.2%	20.0%
Magnesium (MgO)	1.0%	1.5%
Iron (Fe EDTA)	960mg/kg	1460mg/L
Manganese (Mn EDTA)	480mg/kg	730mg/L
Copper (Cu EDTA)	480mg/kg	730mg/L
Zinc (Zn EDTA)	480mg/kg	730mg/L
Boron (B)	190mg/kg	290mg/L
Cobalt (Co EDTA)	8mg/kg	12mg/L
Molybdenum (Mo)	8mg/kg	12mg/L

## ◆ Directions for Use

Apply 2-3 L/ha in 200-600 L/ha water. If the target is small, foliar uptake will be enhanced by the addition of a non-ionic wetter.

Small areas: rate in ml/L of water as below, apply to the point of run off. Do not exceed 10L per 100m<sup>2</sup> of crop. Use the lower rate of 0.5 ml/L on young plants.

The spray tank should be filled with half the required water. After shaking the container measure the required amount of Bio 20 and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Protected Edibles	From 2 true leaves	0.5-1		Use early to promote root growth. Use lower rate on young plants and repeat after 14 days. Promotes root growth and reduces transplant shock.
Field Vegetables	When crop is under stress or during rapid growth	3		Repeat as necessary every 10-14 days.
Bulbs & Outdoor Flowers	From 2 true leaves	2		Use early to promote root growth, later applications will help to increase plant height and number of flowers.
Hardy Nursery Stock	From 2 true leaves	3	0.5-3	Use early to promote root growth, use lower rate on young plants and repeat after 14 days. Promotes root growth and reduces transplant shock.
Protected Ornamentals	Early spring growth		0.5-2	Promotes root growth and improves canopy cover. Use lower rate on young plants and repeat after 14 days.
Soft Fruit	4-8 true leaves	2		Use early to promote root growth, later applications will help to improve bud development.
Wine Grapes	When crop is under stress or during rapid growth	2-3		Repeat as required.
Tree Fruit	Once new leaf 80% open	3		Promotes growth, protects against stress, aids fruit swell and skin finish.

## ◆ Notes

Bio 20 can also be used as a foliar fertiliser on a wide range of crops to improve crop colour and increase vigour and growth. Visual effects on many crops can be seen within a few hours of application in some situations.

Do not apply in tank mix with pesticides when crop is showing deficiency symptoms, is under stress, or in adverse weather conditions.

For further information on compatibility and tank mixing refer to the section on pages 64-65, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk).

# SuperMn

Foliar Nutrition

## Use

To correct manganese deficiency.

## Crops

Most horticultural crops.

## Pack Size

10, 600, 1000 litres.



## Function of Manganese

Manganese is a micronutrient that is essential for many plant functions, particularly in enzyme systems. Manganese is involved in photosynthesis and change of leaf colour is often the first visual symptom of deficiency.

Analysis	w/w	w/v
Nitrogen (N)	2.25%	3.0%
Magnesium (MgO)	2.25%	3.0%
Sulphur (SO <sub>3</sub> )	13.1%	17.5%
Manganese (Mn)	8.6%	11.5%

## ◆ Directions for Use

Use SuperMn when deficiency is diagnosed or suspected, or as a maintenance dressing to prevent less than optimal growth.

Apply 1.5-3 L/ha, in 200-600 L/ha water. Small areas: rate in ml/L of water as below, apply to the point of run off. Do not exceed 10L per 100m<sup>2</sup> of crop.

The spray tank should be filled with half the required water. After shaking the container, measure the required amount of SuperMn and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Protected Edibles - soil grown in polytunnels	As required	1.5-3		Use the lower rate as a maintenance dressing onto actively growing foliage. Use the higher rate when deficiency is suspected or identified.
Brassicas Lettuce & Leafy Salads	From 4-6 true leaves	1.5-3		Use the lower rate as a maintenance dressing onto actively growing foliage. Use the higher rate when deficiency is suspected or identified. Repeat after 10-14 days in cases of severe deficiency.
Bulbs & Outdoor Flowers	From 10cm high but before flowering	1.5		Repeat at 7-10 day intervals, do not apply to crops in flower.
Hardy Nursery Stock	Apply to new season's growth	1.5	1.5	Repeat while growth is still active in the autumn.
Soft Fruit	From 4-6 true leaves	1.5		For strawberries, apply when in leaf and repeat apply when deficiency is diagnosed.
Tree Fruit	Petal fall/fruit set	1.5		In cases of severe deficiency apply before flowering and repeat 10-14 days later.

## ◆ Notes

Do not apply in tank mix with pesticides when crop is showing deficiency symptoms, is under stress, or in adverse weather conditions.

For further information on compatibility and tank mixing refer to the section on pages 64-65, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk).

# Folex<sup>®</sup> Range

Foliar Nutrition

## Use

To correct nutrient deficiency.

## Crops

Most horticultural crops.

## Pack Size

10 litres.

## Function of Folex Range

A range of single micronutrient supplements.



Nutrient	Product	Analysis w/w	Analysis w/v
Magnesium Sulphate (MgO)	Folex Mg 9	7.3%	9.0%
Zinc Sulphate (Zn)	Folex Zn	11.0%	15.0%
Ammonium Phosphate	Folex P	34% P <sub>2</sub> O <sub>5</sub>	46% P <sub>2</sub> O <sub>5</sub>

## ◆ Directions for Use

Applied as directed below. Foliar uptake will be enhanced by the addition of a non-ionic wetter unless already in tank mix with a pesticide.

Apply 200-600 L/ha water.

The spray tank should be filled with half the required water. If applicable, add the required amount of a non-ionic wetter to the water before the nutrient. After shaking the container, measure the required amount of product and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha		
		Folex P	Folex Mg 9	Folex Zn
Protected Edibles	When deficiency is diagnosed or suspected, or prior to rapid growth.	1-2	2.5	1
Field Vegetables	When deficiency is diagnosed or suspected, or prior to rapid growth.	2-10	7.5	1
Bulbs & Outdoor Flowers	From 10cm high but before flowering.	1-7	7.5	1
Hardy Nursery Stock	Apply to new season growth or when deficiency is diagnosed or suspected.	1-3	3	1
Protected Ornamentals	When deficiency is diagnosed or suspected, or prior to rapid growth.	1-3	2	1
Soft Fruit	From start of flowering to fruit set.	1-3	3	1
Wine Grapes	When deficiency is diagnosed or suspected, or prior to rapid growth.	3-10	3	1
Tree Fruit	From petal fall (copper - after harvest, manganese - before flowering).	3-10	7.5	2

## ◆ Notes

Do not apply in tank mix with pesticides when crop is showing deficiency symptoms, is under stress, or in adverse weather conditions.

For further information on compatibility and tank mixing refer to the section on pages 64-65, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk).

# Folex<sup>®</sup> MU35

Foliar Nutrition - Methylene Urea

## Use

Use on crops that require continual supply of foliar applied N to achieve optimum yield performance. Folex MU 35 is particularly useful where soil applied N has not been used efficiently or conditions prevented timely application.

## Crops

Most horticultural crops.

## Pack Size

1000 litres, also available in bulk.



## Function of Folex MU 35

Folex MU 35 is composed of urea and urea polymers of varying length, the longer chains are slower to break down resulting in a phased release of N over a period of 6-8 weeks. The plant absorbs Folex MU 35 very quickly through the leaf, the polymers are then broken down to a usable form of nitrogen over a relatively long period of time compared to normal urea applications. However, the large molecular structure of Folex MU 35 makes this product a very safe form of nitrogen for plants, minimising the possibility of phytotoxicity or scorch when applying.

Analysis	w/w	w/v
Urea (N)	11.0%	14.5%
Methylene Urea	16.5%	20.5%
Total N	28.0%	35.0%

## ◆ Directions for Use

Best results are achieved with early morning or late evening application, when nitrogen is readily absorbed and utilised by the crop.

The spray tank should be filled with 20% of the required water. Add any plant protection products. Top up to 60% of the required water. Measure the required amount of Folex MU 35 and add to the tank whilst maintaining constant agitation.

Add the remaining water and spray.

Crop	Timing	Rate L/ha	Comments
Wine Grapes	Apply once the canopy develops	5-7	Repeat as required.
Outdoor Soft Fruit	Apply once the canopy develops	15	Repeat as required.
Protected Soft Fruit	Apply once the canopy develops	5-10	Repeat as required.
Top, Stone and Ornamental Trees	Early spring & mid-late summer	20-25	Repeat as required.
Protected Ornamentals	Dependent on plant requirements	5-10	Repeat as required.

## ◆ Notes

Do not tank mix with plant protection products if the crop is showing deficiency symptoms, is under stress, or in adverse weather conditions.

Folex MU 35 is physically compatible with most fungicides and insecticides. However, it is recommended samples are tank mixed and checked for compatibility prior to filling the sprayer.

# Karb Konverter

Foliar Nutrition - Potassium Acetate

## Use

To correct nutrient deficiency and to promote fruit set and fruit quality in soft and tree fruit. Also used as a hardener for protected over wintered crops.

## Crops

Ornamentals, Soft, Top and Stone fruits.

## Pack Size

10, 600 litres.

## Function of Karb Konverter

Karb Konverter is a potassium rich foliar feed that does not contain any superfluous nitrogen that can cause excess foliage and inhibit airflow. Applications prior to harvest are intended to optimise water regulation and CO<sub>2</sub> ingress through the control of the stomata. Consequently, carbohydrate synthesis and dry matter accumulation can increase.



Analysis	w/w	w/v
Potassium (K <sub>2</sub> O)	28.0%	39.0%

## ◆ Directions for Use

The spray tank should be filled with 50% of the required water. After shaking the container, measure the required amount of OMEX Karb Konverter and add to the tank whilst maintaining constant agitation. Add the remaining water to the correct dilution and spray.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Ornamentals	Prior to winter hardening	3	3	Apply to correct a nutrient deficiency or prior to winter.
Soft Fruit	2-4 weeks prior to harvest		3	Apply when drip or base nutrition cannot keep up with the requirements of the plant.
Wine Grapes	During periods of rapid dry matter accumulation		3	Use to support essential nutrition.
Top & Stone Fruits	Apply during fruit development		3	Use to support sugar development in the fruit.

## ◆ Notes

Do not tank mix with plant protection products if the crop is showing deficiency symptoms, is under stress, or in adverse weather conditions. OMEX Karb Konverter is physically compatible with most fungicides and insecticides. However, it is recommended samples are tank mixed and checked for compatibility prior to filling the sprayer.

# Sulphomex®

Foliar Nutrition - Ammonium Thiosulphate

## Use

To correct nutrient deficiency.

## Crops

Most field grown horticultural crops.

## Pack Size

10, 1000 litres.



## Function of Sulphomex

Sulphomex is a clear solution containing sulphur and nitrogen. Both nutrients are used in enzyme and protein formation and as a result, plant growth can be boosted and foliage can appear greener. This highly water-soluble formulation does not precipitate or cake and it is quickly absorbed by the plant. Sulphomex is a very safe method of applying nitrogen and sulphur and can be applied even during flowering and fruiting stages. Sulphur is delivered in very fine particles that can reach the most difficult target sites of the plant. This ease of application combined with the high degree of compatibility with plant protection products means that Sulphomex can easily be incorporated into an Integrated Crop Management programme.

Analysis	w/w	w/v
Nitrogen (N)	11.3%	15.0%
Sulphur (SO <sub>3</sub> )	65.0%	87.5%

## ◆ Directions for Use

Use Sulphomex to correct sulphur deficiency, or as part of a programme to prevent sulphur deficiency.

Apply 5-10 L/ha, in a minimum of 200 L/ha water.

The spray tank should be filled with half the required water. After shaking the container, measure the required amount of Sulphomex and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Brassicas	From 4-6 true leaves	5	Maintenance, apply early during maximum growth.
		10	
Blueberries	Apply from flowering onwards	1-2	Stop applying prior to dormancy.
Other Field Vegetables	When crop is 15cm tall, or 6 true leaves	5	Repeat after 10-14 days if deficiency is severe.
Strawberries	Apply from 3-4 new leaves.	1-2	Apply to correct a sulphur deficiency.
Grape Vines	From shoots 5cm long	1-2	Apply to correct a sulphur deficiency.

## ◆ Notes

Do not apply in tank mix with pesticides when crop is showing deficiency symptoms, is under stress, or in adverse weather conditions.

For further information on compatibility and tank mixing refer to the section on pages 64-65, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk).



# Biomex Starter<sup>®</sup>

Organic Range

## Use

To stimulate the growth of roots and increase plant tolerance to abiotic stress through colonisation of plant roots.

## Crops

Protected edibles, hardy nursery stock, soft fruit and tree fruit.

## Pack Size

1 litre.

## Function of Biomex Starter

The product works by colonising the roots of the growing plant with spores of *Bacillus amyloliquefaciens*. The colonies secrete compounds in the vicinity of the root hairs that help to increase availability and uptake of nutrients, resulting in the following effects being observed:

- 1 - Improved germination
- 2 - Improved rooting leading to increased plant vigour
- 3 - Resulting in earlier establishment
- 4 - Reduced disease intensity and frequency due to out-competing soil pathogens

The benefits of *Bacillus amyloliquefaciens* are likely to be reduced in soils with high humus content or naturally high microbial activity because of the higher levels of *Bacillus* already present in the soil.

## Toxicology

Neither phytotoxic nor phytopathogenic effects have been observed in green-house and field trials.



## ◆ Directions for Use

Use Biomex Starter as directed below. Apply 0.5-1 ml/L (0.5 L/ha), in 400-1000 L/ha water. Efficacy will be optimised when soil/growing media temperatures exceed 10°C.

Shake the bottle before use. Apply the spray solution within 8 hours of mixing.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Modules and Seedling Trays (All crops)	As a root dip		0.4	Dip or wet module/sp tray with solution before transplant (or follow guidelines below).
Protected Edibles	At planting, repeat after 3 months	0.5	0.4	Drench at 1 litre of diluted mix per m <sup>2</sup> of growing medium, or
			0.2	Apply through fertigation system at the end of a watering.
Hardy Nursery Stock	As a root drench		0.4	Drench at litre of diluted mix per m <sup>2</sup> of growing medium. Repeat after 2 months.
Establishment of Soft Fruit and Tree Fruit	Bare root drench Soil drench Fertigation		0.4	Dip bare roots for 5 minutes before transplant, follow with fertigation application as below.
			0.4	Drench at 1 litre of diluted mix per m <sup>2</sup> of growing medium/soil, repeat as below.
			0.2	Apply during early active growth following transplant.

## ◆ Soil Application Guidelines

Biomex Starter can be applied with liquid placement fertiliser or with O-Mix water soluble fertiliser. Dilute 0.5-1 litres of Biomex Starter in the volume of liquid fertiliser required per hectare. Maintain agitation, apply within 8 hours of mixing.

## ◆ Storage

The formulation is stable for more than three years at 20°C. It should be kept in fully sealed packaging during storage. Do not store and use opened packages in subsequent seasons.

## Gard KLD

Organic Range - Garlic Extract

### Use

To reduce sulphur deficiency and improve crop health.

### Crops

All crops.

### Pack Size

5 litres.



### Function of Gard KLD

Gard KLD provides a source of sulphur which helps to reduce deficiency and improve plant health. The addition of Kelp stimulates the plant to produce new roots which helps the plant to overcome unfavourable growing conditions.

## ◆ Directions for Use

Use Gard KLD to reduce sulphur deficiency and to promote root growth. Foliar uptake will be enhanced by the addition of SW7<sup>1</sup>, and soil penetration will be enhanced by the use of Kobra<sup>1</sup> in non-organic situations.

Use 2 - 5 L/ha in a minimum of 300 L/ha water. Use up to 1000 L/ha water to improve penetration of the soil, or lightly water using irrigation system following application.

The spray tank should be filled with half the required water. If applicable, add the required amount of SW7 or Kobra to the water before the Gard KLD. After shaking the container, measure the required amount of Gard KLD and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
All Crops	As required	2	Repeat every 14 - 21 days as required.
All Crops	During unfavourable growing conditions	3-5	Repeat every 10 - 14 days at 2 L/ha until conditions improve. Use the higher water rate on dense swards or on dry soils.

## ◆ Notes

<sup>1</sup>SW7 or Kobra may be used as an adjuvant in non-organic crops. Choose SW7 if it will be difficult to achieve good coverage or Kobra to aid soil penetration. Maintain agitation and apply immediately after mixing.

Do not apply when the crop is under stress, or in adverse weather conditions.

# Gard S

Organic Range - Garlic Extract

## Use

To correct nutrient deficiency and promote crop health.

## Crops

Most horticultural crops including brassicas, carrots & swedes, lettuce & leafy salads, protected edibles and soft fruit.

## Pack Size

5 litres.

## Function of Gard S

Gard S provides a source of sulphur which helps to reduce deficiency and improve plant health.



## ◆ Directions for use

Use Gard S to correct sulphur deficiency. Apply by adding to the stock feeding tank or as a foliar application. Foliar uptake will be enhanced by the addition of SW7<sup>1</sup> (non-organic use).

Fertigation: Apply 3-6 litres Gard S per 1000L water.

Foliar: Apply 1-2 L/ha in a minimum of 200 L/ha water.

CAUTION: Foliar application to plants for human consumption may have a negative impact on flavour.

The spray tank should be filled with half the required water. If applicable, add the required amount of SW7 to the water before the Gard S. After shaking the container, measure the required amount of Gard S and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Fertigation Crop	Timing	Rate L/1000L water	Comments
All crops	Prior to pest infestation	6	First application. Dose at 1:100 (or 6L water dose at 1:100 (1%) to provide 0.06ml/L via the drip).
	Ongoing treatment	3	Second and further applications: Dose at 1:100(or 3L per 1000L water, Dose at 1:100 (1%) to provide 0.03ml/L via the drip). Switch back to the higher rate of 6L/1000L stock tank, if conditions favour pest multiplication.
Foliar Crop	Timing	Rate L/ha	Comments
All crops	Prior to the onset of pest infestation	1-2	Use the higher rate on dense or waxy crops. Repeat as required.
All crops	When the sulphur deficiency is diagnosed or suspected	2	Repeat 10-14 days later if required.

## ◆ Notes

You should only apply imported nutrition such as Gard S with the prior approval of your certification body. These products are a restricted input for Soil Association members and you will need to comply with their procedures. It is often possible to have a plan of action for your growing of organic crops which includes this type of product as required by the crop in the growing season and this is best setup prior to the season to save time when a crop is suffering stress or slow growth.

<sup>1</sup> SW7 may be used as an adjuvant. Do not use SW7 on organic crops. Choose SW7 if it will be difficult to achieve good coverage, the leaves are waxy or tightly layered, or with dense crop canopies. SW7 should be added at 0.1% of the spray volume, e.g. 100 ml in 100 litres of water. Maintain agitation and apply immediately after mixing.

Do not apply when crop is showing deficiency symptoms, is under stress, or in adverse weather conditions.



# Greenside

Organic Range

## Use

To correct nutrient deficiency and to improve plant health and tolerance of abiotic stress.

## Crops

A wide range of crops including soft and top fruit, protected edibles, lettuce, cucumber and ornamentals.

## Pack Size

5 litres.

## Function of Greenside

This specially formulated combination of highly available copper and zinc is designed to form a key part of an integrated crop management programme to boost crop health and maximise yield potential.



Analysis	w/w	w/v
Copper (Cu)	2.0%	2.5%
Zinc (Zn)	3.5%	4.5%
Sulphur (SO <sub>3</sub> )	7.5%	9.0%

## ◆ Directions for Use

Use Greenside when deficiency is diagnosed or as a regular maintenance treatment during periods of rapid growth and fruit or root formation.

Always add an organic approved wetter, unless in a tank mix with a pesticide.

Apply at 0.5 - 1 ml/L water (0.5-1 L/ha), in 200-1000L/ha water.

The spray tank should be filled with half the required water before the Greenside. After shaking the container, measure the required amount of Greenside and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Protected edibles	From 7-10 days after planting	1		Repeat at 10-14 day intervals.
Lettuce and Leafy Salads	From 2-4 true leaves	0.5-1		Repeat at 1-2 week intervals. Do not apply alone without a wetting agent.
Field vegetables	From 2-4 true leaves	1		Repeat at 10-14 day intervals if required.
Soft fruit	From green bud	0.5-1	0.5-1	Repeat at 10-14 day intervals.
Tree fruit	Petal fall	0.5-1		Repeat at 10-14 day intervals.
Vines	As required	0.5-1		Repeat at 10-14 day intervals.

## ◆ Notes

Do not apply when crop is under severe stress, or in adverse weather conditions.

Greenside is readily compatible with most herbicides, fungicides, insecticides and foliar nutrients. For further information on compatibility and tank mixing refer to the website [www.omex.co.uk](http://www.omex.co.uk).



# Kelpomex

Organic Range

## Use

To enhance root growth which improves crop establishment leading to higher yield and better quality. Kelpomex helps to increase plant tolerance to abiotic stress and improves pollen germination, pollen tube growth, fertilisation and fruit set.

## Crops

All horticultural crops.

## Pack Size

20 litres.

## Function of Kelpomex

Kelpomex is a kelp concentrate which is manufactured using a unique cell-burst process without heat, chemical digestion or dehydration. This patented process ensures maximum retention of the delicate growth promoting substances found in this species of kelp. Kelpomex also contains a wide range of nutrients, vitamins and amino acids.

The combination of natural active compounds impact upon plants in different ways according to the plant growth stage and condition. Phlorotannins improve root growth; polyamines help to reduce the impact and symptoms of abiotic stress and both promote pollen tube elongation resulting in better fruit set.



## Composition

Kelpomex contains amino acids, carbohydrates, phlorotannins, polyamines and vitamins.

## Typical Analysis

### Nutrients

Nitrogen	0.36%	Phosphorus	0.82%	Potassium	0.72%
Magnesium	0.02%	Calcium	0.08%		

## Directions for Use

Use Kelpomex as directed below. Apply 2-3 L/ha for most crops, in 200-600 L/ha water. Small areas: rate in ml/L as below, apply to the point of run off. Do not exceed 10 L/100 m<sup>2</sup> of crop.

The spray tank should be filled with half the required water. After shaking the container, measure the required amount of Kelpomex and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray. Adjust pH of spray solution to less than 7 if necessary.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Modules and Seedling Trays (All Crops)	As a root dip		10	Dip or wet module/seedling tray with solution before transplant.
	As a foliar spray		2-3	Apply before transplant, repeat 14 days after transplanting, use the higher rate in poor conditions.
Protected Edibles	7-10 days after planting or 4 true leaves <sup>1</sup>	2		Repeat after 14-21 days.
Field Vegetables	From 4 true leaves	2-3		Repeat after 14-21 days. Use the higher rate when growing conditions are poor.
Hardy Nursery Stock	As a root drench		2-3	Drench at 1L of diluted mix per m <sup>2</sup> of growing medium. Repeat after 14 days.
	As a foliar spray	3	3	Apply at planting, repeat at 14 day intervals up to 4 applications, or apply once after the second drench.
Protected Ornamentals	7-10 days after planting or 4 true leaves <sup>1</sup>	2.5	2.5	Repeat at 14-21 day intervals up to 4 applications.
Establishment of Soft Fruit, Tree Fruit and Vines	Bare root drench		10	Dip bare roots for 5 minutes before transplant
	Soil drench		2-3	Drench at 1L of diluted mix per m <sup>2</sup> of growing medium
	Foliar Spray	3		Apply during early active growth following transplant application. Repeat up to 3 times at 14-21 days.
Established Soft Fruit	From early flowering	2 or 3		Apply up to 6 applications 14 days apart. Apply up to 4 applications 21 days apart.
Established Tree Fruit <sup>2</sup>	See comments	3		Deciduous: Spray at 50% bloom, fruit set and 14 days later to increase fruit set and retention. Spray after set and repeat twice at 14 days to improve size Evergreen: Spray at pre-bloom, full bloom, fruit set, with a further application 14-21 days later if required.
Vineyards/ Wine Grapes	As a foliar spray	2-3	3	Apply at 5-10 cm shoot growth to improve bunch stretching. Spray 2 weeks before flowering and repeat at 30% flowering to improve berry set, berry uniformity and yield. Apply pre-veraison and at veraison to improve fruit sugar and colour (red varieties).

## Notes

<sup>1</sup> If modules/seedlings received Kelpomex before application maintain the 14 day interval.

<sup>2</sup>Cherries - In a fast breaking spring reduce the interval to 7 days between applications.

Do not tank mix with copper based fungicides. For further information on compatibility and tank mixing refer to the section on pages 64-65, and for physical compatibility with pesticides refer to the website.



# Organomex® Range

Organic Range

## Use

In organic crops to alleviate deficiency and boost growth when suffering stress resulting in reduced higher yields.

## Crops

Any organic crops.

## Pack Size

10, 1000 litres.

## Function of Organomex

Many organic crops exhibit deficiency symptoms or slow growth due to a lack of imported nutrition or poor conditions for crop growth. The Organomex range includes products with either higher nitrogen or higher potassium content to suit the growth stage or the crop to be treated. There is also a balanced option for crops that need both nitrogen and potassium.

The Organomex products are extremely effective multi-purpose fertilisers that can be used as a foliar feed or as a fertigation product. They are based on plant extracts and Kall Vinasse and are intended to promote strong healthy growth with their balance of nutrients. The other nutrients in each of the products include significant levels of calcium, sulphur and magnesium with micro-levels of manganese, copper, zinc, boron and iron. The organic constituents (amino acids, globulins, proteins) are metabolised slowly to provide additional nutrient release and help to improve microbial and earthworm activity in the soil.

The fertilisers are rapidly taken up by both foliage and roots so beneficial results are achieved quickly and economically. Typically, the 6-2-4 is used to boost slow growing crops in cold, wet or waterlogged soils. The products are non-scorching and therefore ideal for seedlings, transplants or crops under stress.



Typical Analysis	Organomex 7-2-2		Organomex 6-2-4		Organomex 5-2-5		Organomex 3-1-8	
	w/w	w/v	w/w	w/v	w/w	w/v	w/w	w/v
Nitrogen (N)	7.0%	8.8%	6.0%	7.5%	5.0%	6.5%	3.0%	4.0%
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	2.0%	2.5%	2.0%	2.5%	2.0%	2.5%	1.0%	1.5%
Potassium	2.0%	2.5%	4.0%	5.0%	5.0%	6.5%	8.0%	10%
Typically each formulation also includes (w/v)	Ca 1.5% SO <sub>3</sub> 2.0%, MgO 0.4%, Fe 320mg/L, Mn 31mg/L, Cu 15mg/L, B 390mg/L, Mo 3mg/L							

## ◆ Directions for Use

Apply 5-10 L/ha, in a minimum of 200 L/ha water.

The spray tank should be filled with half the required water. After shaking the container, measure the required amount of Organomex product and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
Protected Edibles	Early growth or as required	5-10		Apply at 10-14 day intervals if required.
Field Vegetables	Early growth or as required	5-10		Repeat as necessary every 10-14 days. Rate and number of application will be dependent on the susceptibility of the particular crop/variety.
Soft Fruit Tree Fruit	As required	5-10		Follow with up to 3 further applications at 14 day intervals if required.
Wine Grapes	As required	5-10		Repeat as necessary every 10-14 days.
Fertigation, drip tape and trickle			2.5-5	Dilute the product with water to make a stock solution. Add 2.5-5L of Organomex in a 10L stock solution. Dosed at 1:100 (1%) to provide 5ml/L via the drip.

## ◆ Notes

You should only apply imported nutrition such as the Organomex range of products with the prior approval of your certification body. These products are a restricted input and you will need to comply with their procedures. It is often possible to have a plan of action for your growing of organic crops which includes this type of product as required by the crop in the growing season and this is best set up prior to the season to save time when a crop is suffering stress or slow growth.

# Kobra

Adjuvants - ADJ No. A0982

## Use

To improve foliar uptake of plant protection products and foliar nutrients through better distribution and faster drying.

As a growing media wetter and re-wetter via application as a drip, overhead irrigation or as a drench.

## Crops

All edible and non-edible crops.

## Pack Size

5, 600, 1000 litres.

## Function of Kobra

Kobra is a fatty amine-based wetter designed to give enhanced coverage and consequently, improved uptake of agrochemicals and foliar nutrients when used as a foliar adjuvant. The improved coverage means drying time is usually 50% quicker than when applying agrochemicals alone.

Kobra can also be applied through the irrigation system as a growing media wetter/ re-wetter. The reduction in surface tension of the irrigated liquid results in even penetration throughout the growing media and results in fewer or zero dry patches as well as less risk of shrinkage.



## Composition

A water-miscible concentrate of modified fatty amine and sugar derivatives.

## ◆ Directions for Use

Kobra can be used alone or mixed with a wide range of acaricides, fungicides, insecticides and foliar nutrients. If using as a pesticide adjuvant always read the appropriate pesticide label before use.

When determining the application rate first consider how Kobra will be used, either as a foliar application as a pesticide adjuvant or as a growing media wetter.

Use the dilution rates below. For foliar applications with pesticides consider the maximum concentration rate.

For edible crops the application rate will vary depending on the growth stages specified for each crop. For the full list of requirements consult the HSE website or contact OMEX Horticulture.

Use	Timing	Rate % of Total Volume	Rate ml/L water	Comments
As a pesticide or nutrient adjuvant on non edible crops	Any	Maximum rate of 0.15%	1.5	Kobra can be used with all authorised plant protection products up to the full authorised plant protection product rate.
As a dry wash pre-harvest or pre-sale with a sprayer	Please check crop specific timings	Maximum rate of 0.15%	1.5	Kobra can be used with all authorised plant protection products at half or less than half the authorised plant protection product rate.

Use	Timing	Rate % of Total Volume	Rate ml/L water	Comments
New growing media wetter - first application	First	1.0%	10	Apply at a rate of 1:100 or 1% to the growing media.
New growing media wetter - second application	Second	0.05%	5	Apply at a rate of 1:100 or 1% to the growing media.
New growing media wetter - regular application	Quarterly	0.050%	0.50	Apply at a rate of 1:100 or 1% to the growing media.
	Weekly	0.025%	0.25	
	Monthly	0.010%	0.10	
	Constant	0.001%	0.01	

## ◆ Notes

Do not apply in a tank mix with pesticides when the crop is showing deficiency symptoms, is under stress or in adverse weather conditions.

# SW7

Adjuvants - No A0875

## Use

To improve uptake of plant protection products and foliar nutrients on crops that are difficult to achieve good coverage, with waxy or tight layers of leaves or dense canopies.

## Crops

All horticultural crops especially fruit, protected edibles and protected salad crops.

## Pack Size

1 litre.

## Function of SW7

SW7 is a silicon based wetter designed to give enhanced coverage and consequent uptake of foliar nutrients. The silicon-oxygen bonds are hydrophobic and the organic clusters are hydrophilic, creating a superior wetting agent, which spreads quickly to cover a large surface area—greater than conventional surfactants. Therefore, SW7 can be particularly beneficial on crops where it is difficult to achieve good coverage.

Also at the higher rate, SW7 can supply silicon to the crop. Silicon is widely recognised as a beneficial element to many crops. It is transported in the xylem and deposited in the epidermal cell walls. It complexes with calcium to help strengthen cell walls and also helps to alleviate abiotic stress.

## Directions for Use

Use where good leaf coverage is required. Always consult the appropriate nutrient or plant protection product (PPP) guide before use. SW7 is suitable with both hard and soft water. Use 0.05-0.1% dilution in a minimum of 100 L/ha water. Use the higher rate on waxy leaves, dense canopies and mature crops.

The spray tank should be filled with half the required water. Add the required amount of SW7 to the water before adding any PPP or nutrients, maintain constant agitation. Add remaining water to correct dilution and spray.



## ◆ Detailed Application Rates

Crop/ Situation	Plant Protection Product (PPP)	Max Concentration (% spray solution)	Max No. of Treatments	Latest time of Application
All non-edible crops	All authorised PPP	0.1 (minimum 0.05 L/ha)	Follow the statutory conditions of use of the PPP	Follow the statutory conditions of use of the PPP
All Edible Crops	All authorised PPPs (at half or less than half the authorised PPP rate).	0.1 (minimum 0.05 L/ha)	Follow the statutory conditions of use of the PPP	Follow the statutory conditions of use of the PPP
Non-Crop Production	All authorised PPP	0.1 (minimum 0.05 L/ha)	Follow the statutory conditions of use of the PPP	Follow the statutory conditions of use of the PPP

## ◆ Latest Time of Application at Full Rate PPP

In addition, this adjuvant may be used at a maximum concentration of 0.1% spray solution on the following crops, up to the growth stages specified, with all authorised PPPs applied up to their full authorised rate.

Crop	Latest Application
Apple and pear	Up to and including first fruit set 5-10mm.
Apricot, cherry, plum, table grapes and wine grapes	Up to and including first fruit set.
Aubergine, cucumber, melon, pepper, tomato, chilli, winter squash and pumpkin	Up to and including first fruit set on first truss.
Blackcurrant and red currant	Up to and including first visible green fruitlet.
Lettuce	Varieties forming heads: up to and including heads begin to form.
Lettuce	Varieties not forming heads: up to and including leaf rosette has reached 30% of the diameter typical for the variety.
Raspberry	Up to and including first fruit set.
Rocket	Up to and including 3rd true leaf unfolded.
Spinach	Leaf rosette has reached 30% of the expected diameter typical for the variety.

SW7 may also be used in a tank mixture with foliar nutrients to improve coverage and uptake. SW7 should be used at a rate of 0.05-0.1% dilution in a minimum of 100L/ha water. Use the higher rate on waxy leaves, dense canopies and mature crops. **AVOID APPLYING TO CROPS THAT ARE IN FLOWER.**

# DeSaltus 2.0

Water conditioner containing maleic and polymaleic acid for use as a soil and growing media. growing media.

## Use

DeSaltus 2.0 can be used in all types of irrigation systems to reduce the level of sodium in the growing media.

## Crops

All horticultural crops.

## Pack Size

10 litres.

## Function of DeSaltus 2.0

DeSaltus 2.0 removes primarily sodium from the root zone along with other unwanted nutrients. This reduces the chances of sodium antagonism with essential nutrients, optimizes feed recipes and enhances the uptake of nutrition to the plant.

Many factors influence the effects of salts on plants including weather, drainage, soil/substrate texture, water quality, variety grown etc. Optimum results have been achieved with a programme approach of multiple applications of DeSaltus 2.0 throughout the growing season.

DeSaltus 2.0 can be used in all types of irrigation systems by either metering directly into irrigation water or applying in combination with soluble/liquid fertilisers.

The benefit of incorporating DeSaltus 2.0 into a substrate management plan is that no separate flushing cycles are required. DeSaltus 2.0 is simply added into the stock tank and crops can be fed as normal. This prevents the problem of having excessively wet substrate which can lead to anaerobic conditions around the root zone, poor iron uptake, high humidity around the canopy and a reduction in fruit quality.

The AHDB (Agriculture and Horticulture Development Board) determined that substrate grown strawberries should not have greater than 51 mg/L of sodium or 77 mg/L of chloride within the substrate. To maintain effective nutrient movement in substrate systems, a management plan should be ideally initiated before these threshold levels are breached. The application rate of DeSaltus 2.0 will be determined by either how close to, or how far beyond, a substrate is to these thresholds.



## How to use DeSaltus 2.0:

DeSaltus 2.0 can be used in all types of irrigation systems across a range of growing media both before planting and once a crop is planted. The chosen DeSaltus 2.0 application rate must be maintained to obtain the desired response from the substrate. A deviation from the desired rate may lead to an unsatisfactory performance from DeSaltus 2.0. Use the field application rates below:

DeSaltus 2.0 Target Application Rates	Final DeSaltus 2.0 field application rate emitted from the drip (ml)	Final DeSaltus 2.0 field application rate emitted from the drip (L)
Continuous inclusion	0.025	0.000025
Moderate unwanted nutrient accumulation	0.050	0.000050
High unwanted nutrient accumulation	0.075	0.000075
Extremely high unwanted nutrient accumulation	0.100	0.000100

To calculate the final DeSaltus 2.0 field application rate when applying via the stock tank, you will need to know:

- The stock tank size e.g., 1000L IBC
- The fertigation field application rate e.g., 1:100

The information can be entered into this simple calculation:

$$\text{DeSaltus 2.0 volume (L)} \div \text{stock tank size (L)} = \text{Stock tank dilution (L)}$$

$$\text{Stock tank dilution (L)} \div \text{Field application rate (L)} = \text{Final DeSaltus 2.0 field application rate (L)}$$

In a worked example to target a moderate DeSaltus 2.0 field application rate of 0.05 ml with these parameters:

- DeSaltus 2.0 volume = 5L
- Stock tank size = 1000L
- Field application rate = 1:100

will produce this calculation:

$$5\text{L (DeSaltus 2.0 volume)} \div 1000\text{L (stock tank volume)} = 0.005\text{L}$$

$$0.005\text{L} \div 100\text{L (fertigation field application rate)} = 0.00005\text{ L (final DeSaltus 2.0 application rate)}$$

$$\text{To convert L to ml: } 0.00005\text{L} \times 1000 = 0.05\text{ ml (final DeSaltus 2.0 application rate)}$$

Do not tank mix with pesticides when the crop is showing deficiency symptoms, is under stress or in adverse weather conditions. Do not mix concentrated DeSaltus 2.0 with chlorine sources such as bleach. DeSaltus 2.0 is physically compatible with most soluble fertilisers. For more information contact OMEX Horticulture on 01533 760011.

# Physical Compatibility

Product	CalMax® Ultra	Catalyst	K-Humate	K50	Kelpak®	Kickstart	O-Phyte	Zynergy®	Bio 20
CalMax® Ultra	C	C	C	C	C	C	C	C	X
Catalyst	C	C	C	C	C	C	C	C	X
K-Humate	C	C	C	X	C	C	C	C	C
K50	C	C	X	C	C	X	X	X	C
Kelpak®	C	C	C	C	C	C	C	C	C
Kickstart	C	C	C	X	C	C	C	C	C
O-Phyte	C	C	C	X	C	C	C	C	C
Zynergy®	C	C	C	X	C	C	C	C	C
Bio 20	X	X	C	C	C	C	C	C	C
SuperMn	C	C	C	X	C	C	C	C	C
Folex® Range	C	C	C	C	C	C	C	C	C
Folex® MU35	C	C	C	C	C	C	C	C	C
Karb Konverter	C	C	C	C	C	C	C	C	C
Sulphomex®	C	C	C	X	C	C	C	C	C
Biomex Starter	X	C	C	X	C	C	C	C	C
Gard KLD	C	C	C	C	C	C	C	C	C
Gard S	C	C	C	C	C	C	C	C	C
Greenside	C	C	C	X	C	C	C	C	C
Kelpomex	C	C	C	X	C	C	C	C	C
Organomex® Range	C	C	C	C	C	C	C	C	C
Kobra	C	C	C	C	C	C	C	C	C
SW7	C	C	C	C	C	C	C	C	C
DeSaltus 2.0	C	C	C	C	C	C	C	C	C

\* If being applied to organically certified crops, check with certifying body that product being mixed is allowed.



# Tank Mixing with Pesticides

Products in the OMEX Foliar range are physically compatible with most, but not all, pesticides. OMEX cannot accept any liability for any loss or damage as not all pesticides have been tested, and because efficacy of any mix will depend on, among other factors, the pesticide concerned, crop conditions, growth stage, weather and volume of water used.

An extensive range of pesticides have been tested for physical compatibility with the OMEX Foliar range. Since the list is being continually updated it is available to view on [www.omex.co.uk](http://www.omex.co.uk). Telephone 01553 760011, or email [horticulture@omex.com](mailto:horticulture@omex.com) for the latest version.

## Tank Mix Guidelines

Ensure sprayer tank is clean and free from residue of any previous products.

- Half fill the sprayer with water before adding products.
- Allow time for one product to fully disperse before adding the next.
- Spray the mixture straight away and avoid leaving in the sprayer overnight.
- Check the inside of the sprayer tank for any residue after emptying each tank.
- The source and quality of water can have

an impact on the physical compatibility of different chemicals.

- If in doubt conduct a physical test in a bucket test prior to filling the sprayer.

No tests have been undertaken on crop safety, product performance or sprayer tank compatibility, therefore use is at the grower's own risk.

When using tank mixes always follow the statutory conditions of all tank mix partners. Use plant protection products safely. Always read the label and product information before use.

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## Application Guidelines

For optimum nutrient uptake by the plant, the following guidelines should be followed:

### Apply

- To crops that are actively growing.
- In the early morning or evening when humidity is high.

### Avoid Application

- To crops under severe stress from drought frost, or herbicide damage.
- In hot, dry windy conditions.

### Spray Mixture Preparation

- Always shake the container before opening.

- Part fill the spray tank with clean water and start agitation.
- Add the required amount of wetter (e.g. SW7).
- Add the required amount of OMEX product and continue filling the tank to half with clean water.
- Crop protection products may be added to the spray tank, refer to OMEX Tank Mix Compatibility Guide.
- Fill the spray tank under agitation, all products must be fully dispersed prior to starting application.

# To Order OMEX Products

## Packing, Pallet Sizes and Deliveries

OMEX liquid products are supplied in high density plastic containers, fitted with tamper evident closures.

Selected carriers are used to ensure fast and economical delivery of the products.

The following table shows standard packing and pallet sizes for the various pack sizes and products listed in this guide, to assist with ordering and stocking.

Delivery charges may apply to island destinations.

Product	Pack Size	Per Box	Per Pallet
Standard Sizes	1 litre	12 x 1 litre	
	5 litres	4 x 5 litres	120 x 5 litres
	10 litres	-	52 x 10 litres
	20 litres	-	32 x 20 litres
	600 litres	-	Single IBC
	1000 litres	-	Single IBC
Kelpak	5 litres	4 x 5 litres	132 x 5 litres
	20 litres	-	32 x 20 litres
	1050 litres	-	Single IBC
Water Soluble Powders	25 kilos	-	40 x 25 kilos

Spring 2026



**GENERAL ENQUIRIES -**

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Bardney Airfield,  
Tupholme,  
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LN3 5TP

**Email:** [horticulture@omex.com](mailto:horticulture@omex.com)

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Phillippa Dodds- Crop Nutrition Agronomist North -  
[phillippad@omex.com](mailto:phillippad@omex.com)

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[neilh@omex.com](mailto:neilh@omex.com)