



# Horticultural



HORTICULTURE

## Product Guide



OMEX operates throughout the world manufacturing liquid fertilisers and foliar health promoters for the agricultural, horticultural and amenity sectors. Specialist knowledge of fluid dynamics has also allowed OMEX to expand into producing wastewater treatments and deicers.

**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 suspension fertilisers, solution fertilisers, 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.

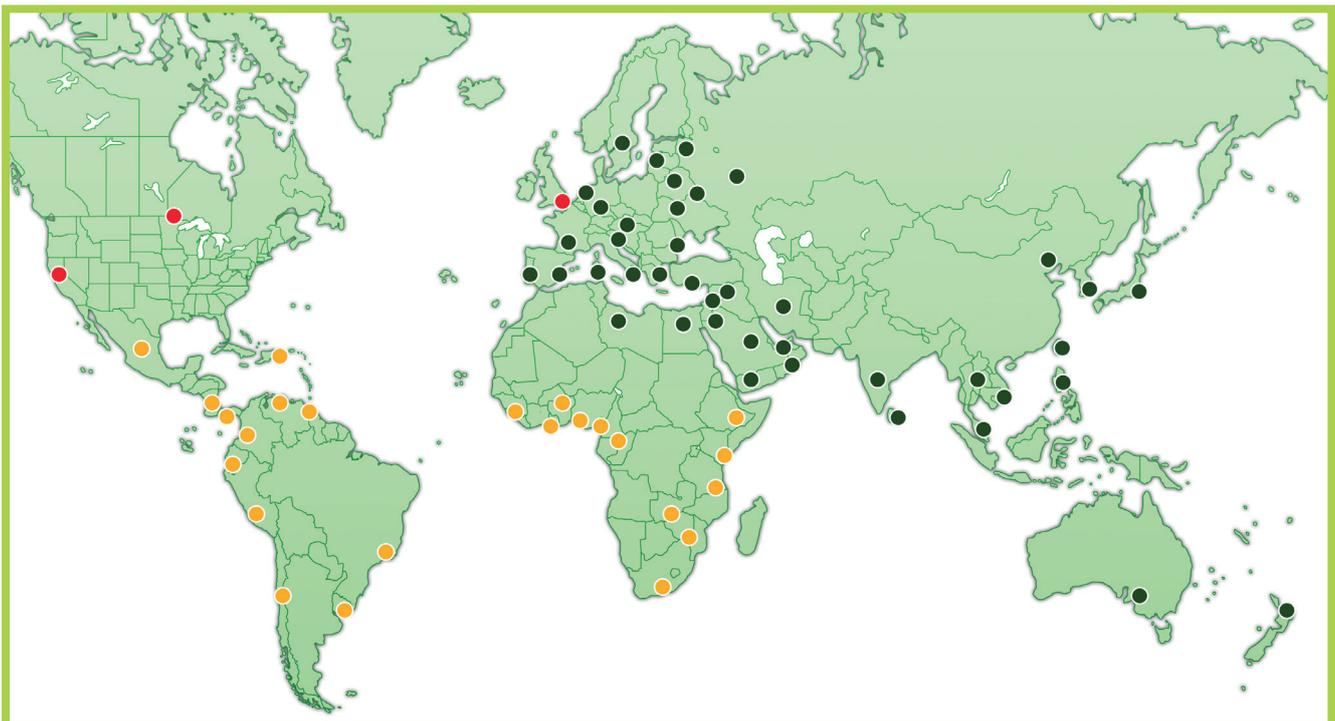
**OMEX Agrifluids** markets speciality fertilisers in over sixty countries around the world, working

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.



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# 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 soil 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 grain, fruit or tuber 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

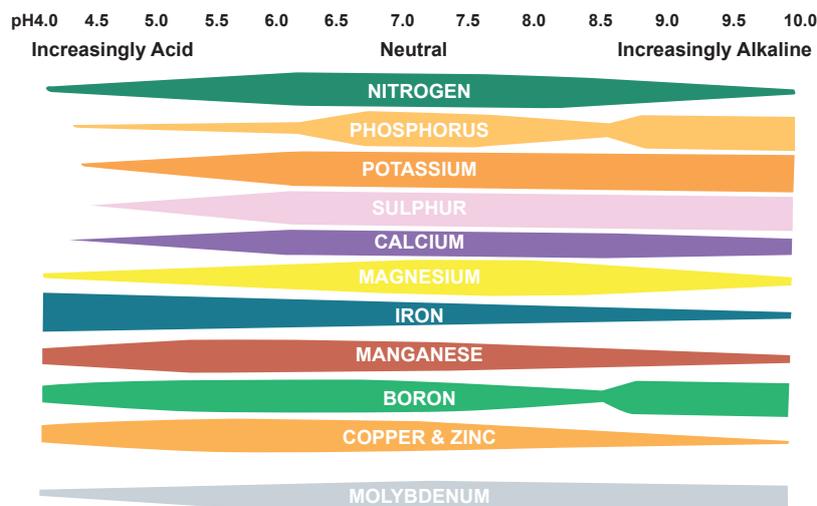
OMEX produces a range of speciality formulations which incorporate all of these refinements: the best choice of effective ingredients; synergistic combinations of nutrient sources; improved spreading and penetration; and organic enhancement.

This is an unbeatable combination called Enhanced Bio-Availability – EBA ® Technology.

# Significance of Soil pH

The pH of the soil 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 soil 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 soil pH. Often fields are treated with either sulphur or lime to lower or increase the pH of the soil respectively. However, in both circumstances, the availability of some nutrients can be reduced, and crops will require treating with foliar fertilisers to 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:

- Compatibility of OMEX products with each other (see pages 66-67 in this guide) and with plant protection products.
  - 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

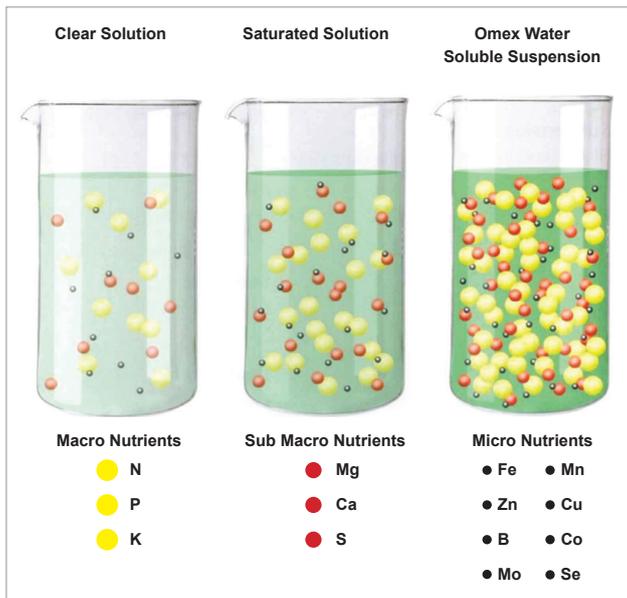
OMEX is fully committed to providing agronomically sound and scientifically proven solutions for growers both now and in the future.

# 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 and following inspection and disclosure on the detailed composition of products in the OMEX organic range, certification and are approved by the Soil Association and Organic Farmers and Growers. They have also been used by SOPA members in Scotland. Please refer to the organic section beginning on page 50.

# 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 at the time of sampling. Tissue testing reports the level of all the nutrients in the sample, including those locked up at the time of sampling 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

## 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

## The SAP System

The full SAP system begins with an initial complete soil analysis, base fertiliser recommendation (applied as a bespoke suspension fertiliser, if appropriate) and up to 5 full spectrum SAP tests at programmed intervals during the growing season.

## SAP Health Checks

Alternatively, one-off health checks can be provided on a wide range of crops, with a rapid turnaround of results. The recommendations are emailed within 2-3 days of receipt of the samples, making it an excellent management tool for the grower.

## SAP Analysis

- The SAP analytical report will show the level of:  $\text{NO}_3$ ,  $\text{NH}_4$ , 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

## When and How to Sample

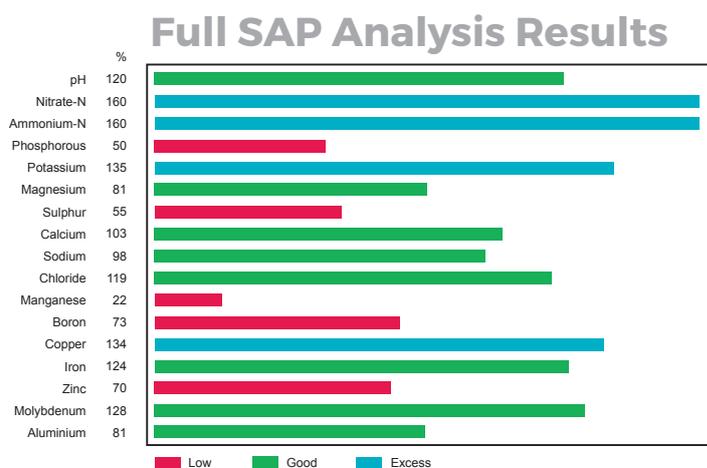
- SAP sampling procedures are crop specific—full details and sampling instruction are supplied in the 'SAP Pack'

- Sample when problems are seen, when the crop is under stress, or prior to a growth surge
- Sample in a representative manner—either in a pre-marked 'W' or in a straight line.
- Sample early in the morning before the dew has lifted
- Select the oldest actively growing leaf and petiole from at least 20 plants

## 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

Full details of the sampling technique are contained within the SAP Packs.



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.

## 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.

## 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.

# Iron

## Function of Iron

Iron is a constituent of several enzymes and some pigments, and assists in nitrate and sulfate reduction and energy production within the plant. Although iron is not used in the synthesis of chlorophyll (the green pigment in leaves), it is essential for its formation. 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.



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# 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.

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# 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.

# 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.



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# 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.

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# 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.



# 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.

## 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.



# 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>									
Biomex Plus					19.3	17.0			
CalMax Ultra	14.5	2.0	1.0	11.5			3.0		22.0
DP98	4.0		4.0		38.0	17.5			
Foliar Supreme					24.0	15.0		112.5	
K50	3.0	3.0				50.0			
Kelpak	0.36				0.82	0.72			0.08
O-Phyte					38.0	26.0			
Vitomex					24.5	21.5			
Zynergy								9.0	
<b>Foliar Nutrition - Specialities</b>									
Bio 18	18.0	16.6	1.3	0.1	18.0	18.0	1.0		
Bio 20	20.0		8.6	11.4	20.0	20.0	1.5		
Micromex							1.3	4.5	
SuperMn	3.0			3.0			3.0	17.5	
<b>Foliar Nutrition</b>									
Folex B	6.5								
Folex Cu 6								7.5	
Folex K 39	11.0			11.0		39.0			
Folex Mg 9							9.0	17.3	
Folex Mg 10	7.0						10.0		
Folex Zn								18.5	
Manganese 17.5								25.5	
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 S									
Greenside									
Kelpomex	0.36				0.82	0.72			0.08
Organomex 7-2-2	8.75				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		
	5,000		2,010		10,720	1.30-1.34	
730	580	730	1,460	15	290	1.47 - 1.51	
						1.32 - 1.36	
						1.49 - 1.53	45% elemental sulphur
						1.48 - 1.52	
200	200	100	8000	400	4000	1.02 - 1.06	High auxin & amino acid kelp extract, typical analysis
	5,000		2,500		1,350	1.36 - 1.40	24.5% phosphite
	25,000				45,000	1.23 - 1.27	
290	740	30,000	740	12	740	1.48 - 1.52	28% Biostimulant
290	730	1,460	730	12	730	1.50 - 1.54	28% Biostimulant
10,000	3,300	26,000	19,500	300	26,000	1.32 - 1.36	
			115,000			1.32 - 1.36	
150,000						1.35 - 1.39	
	60,000					1.16 - 1.20	
						1.44 - 1.48	
						1.21 - 1.25	
						1.28 - 1.32	
					150,000	1.32 - 1.36	
			175,000			1.40 - 1.44	
						1.32 - 1.36	
Bacillus amyloliquefaciens						1.00 - 1.04	
							Garlic Extract
	25,000				45,000	1.23 - 1.27	
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.

## Delivery

OMEX commits to delivering within 3-4 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 15-15-22.5 Adjust Blueberry



## 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 21-7-21 +Mo	3-1-3	21	7	21	1.6	Mix 1 + Mo 0.21	787
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 11-42-11	1-4-1	11	42	11	1.6	TE Mix 1	896
O-Mix 6.5-11-30 COIR	1-2-5	6.5	11	30	5	TE Mix 2	1145
O-Mix 6-12-31 +5MgO PEAT	1-2-5	6	12	31	5	TE Mix 2	1034

## 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 <sup>1</sup>	3-1-3	20	8	20	1.6	TE Mix 1	1025
O-Mix ADJUST 18-18-18 <sup>2</sup>	1-1-1	18	18	18	1.6	TE Mix 1	778
O-Mix ADJUST 15-15-22.5 <sup>2</sup>	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

<sup>1</sup> Also available as nitrate free

<sup>2</sup> Also available as O-Mix 15-15-22.5 Blueberry and 18-18-18 Blueberry with a TE Mix specifically designed for the blueberry crop

## Micronutrient Levels

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 <sup>2</sup>	0.030	0.027	0.154	0.100	0.013	0.020

# Biomex® Plus

Biostimulants & Quality Improvement

## Use

To stimulate the growth of roots, increase plant tolerance to abiotic stress and reduce susceptibility to root attack by pathogens through colonisation of plant roots.

## Crops

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

## Pack Size

5 litres



## Function of Biomex Plus

Biomex Plus is applied as a growing media amendment at planting. The “Biomex” part of the formulation works by colonising the roots of the growing plant with the beneficial bacteria *Bacillus amyloliquefaciens*. The colonies shield the plant roots from pathogenic fungal attack, and secrete compounds in the vicinity of the root hairs that help to increase availability and uptake of nutrients.

The “Plus” part of the formulation supplies plant stimulating phosphite along with potassium and micronutrients chelated in a unique way.

Treated plants are better able to compensate for stress from biotic factors (pathogens) and abiotic factors (e.g. too hot, too cold, too wet, too dry, too much salinity).

## Composition

A water based liquid containing  $2.5 \times 10^{10}$  cfu/g (colony forming units per gram) spores of *Bacillus amyloliquefaciens*.

Analysis	w/w	w/v
Phosphate (P <sub>2</sub> O <sub>5</sub> )	18.0%	19.3%
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> )	18.0%	19.3%
Potassium (K <sub>2</sub> O)	16.0%	17.0%
Manganese (Mn)	1500 mg/kg	2010 mg/L
Copper (Cu)	3300 mg/kg	5000 mg/L
Zinc (Zn)	8000 mg/kg	10720 mg/L

## ◆ How to use Biomex Plus

Use Biomex Plus as directed below. Apply 2.5-5 ml/L (2.5 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 drip		5	Dip or wet module/seedling tray with solution before transplant (or follow guidelines below)
Protected Edibles	At planting, repeat after 3 months	2.5	2.5	Drench at 1 litre of diluted mix per m <sup>2</sup> of growing medium or Apply through fertigation system at the end of a watering
Hardy Nursery Stock	As a root drench		2.5	Drench at 1 litre mix per m <sup>2</sup> of growing medium. Repeat after 2 months
Establishment of Soft Fruit and Tree Fruit	Bare root drench		5	Dip bare roots for 5 minutes before transplant, follow with fertigation application as below
	Soil Drench	2.5	2.5	Drench at 1 litre of diluted mix per m <sup>2</sup> of growing medium/soil, repeat as below
	Fertigation	2.5	2.5	Apply during early active growth following the transplant application. Leave 2-3 months between applications

## ◆ Notes

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

# CalMax® 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

5, 10, 1000 litres

## Function of CalMax® 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 <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 66-67, 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

# DP98

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 DP98

DP98 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.



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 DP98 as directed below. Foliar uptake will be enhanced by the addition of NA13<sup>1</sup> unless in tank mix with a pesticide.

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. If applicable, add the required amount of NA13 to the water before the DP98. After shaking the container, measure the required amount of DP98 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 66-67, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk)

<sup>1</sup> NA13 is an adjuvant designed to help with improved adhesion, deposition and penetration of the spray solution on the leaf surface. NA13 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.

# 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 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 mycellial growth 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	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 66-67, 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

## 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, 25, 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					

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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 requires
Vineyards/ Wine Grapes	As a foliar spray	2-3	3 min	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 66-67, and for physical compatibility with pesticides refer to the website.

# 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

20, 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 phloem. 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	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	1		To stimulate roots and improve establishment
	Larger than 6-8 true leaves	2-4		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	Green bud to end of season	2		Use to promote root development if growing conditions are poor
Fertigation, drip tape and trickle	As required	4-6		O-Phyte should be added to feed stock solutions at 25 ml/L (2.5 L/100 L of stock solution)

## ◆ Notes

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

# Vitomex®

Biostimulants & Quality Improvement

## Use

To improve plant health and tolerance of abiotic stress.

## Crops

A wide range of horticultural crops.

## Pack Size

5, 10, 1000 litres

## Function of Vitomex

A unique nitrate free foliar nutrient which supplies plant stimulating phosphite along with potassium and trace elements chelated in a unique way to improve plant health and tolerance of abiotic stress.

## Observed Benefits

- Improved plant health leading to better tolerance to stress
- Improved rooting action
- Increased yield
- Post harvest quality enhancements and higher solids content
- Improved foliar uptake of cations (i.e. K, Ca, Mg, Mn)



Analysis	w/w	w/v
Phosphate (P <sub>2</sub> O <sub>5</sub> )	18.0%	24.5%
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> )	18.0%	24.5%
Potassium (K <sub>2</sub> O)	16.0%	21.5%
Copper (Cu)	4000mg/kg	5000mg/L
Zinc (Zn)	1000mg/kg	1350 mg/L
Manganese (Mn)	2000mg/kg	2500mg/L

## Directions for Use

Use Vitomex as directed below. Foliar uptake will be enhanced by the addition of NA13<sup>1</sup> unless in tank mix with a pesticide, NA13 is recommended if the target is small or the canopy is dense.

Apply 1.5 - 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. If applicable, add the required amount of NA13 to the water before the Vitomex. After shaking the container, measure the required amount of Vitomex 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
Field Vegetables <sup>2</sup>	From 2-4 true leaves	2		Repeat after 10-14 days
Hardy Nursery Stock	7-10 days after planting, 2-4 applications	1.5-2	1.5-2	Repeat at 10-14 day intervals. Use the higher rate on herbs and shorten the interval to 10 days if required
Protected Ornamentals <sup>2</sup>	7-10 days after planting, 2-4 applications	2-4	2-4	Repeat at 10-14 day intervals

## Notes

<sup>1</sup> NA13 is an adjuvant designed to help with improved adhesion, deposition and penetration of the spray solution on the leaf surface. NA13 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.

<sup>2</sup> SW7 may be used as an alternative adjuvant on potatoes, brassicas and root crops. Choose SW7 if it will be difficult to achieve good coverage, the leaves are waxy or tightly layered, or with dense crop canopies.

For further information on compatibility and tank mixing refer to the section on pages 66-67, 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 and leafy salads.

## Pack Size

5, 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 NA13<sup>1</sup> unless in a tank mix with a pesticide.

Apply at 0.5-1 L/ha, in a minimum of 200L/ha water, plus NA13 at 0.1% of the spray volume.

The spray tank should be filled with half the required water. If applicable, add the required amount of NA13 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	1-2		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	1-2	1-2	Repeat at 10-14 day intervals
Tree fruit	Petal fall	2		Repeat at 10-14 day intervals
Vines	As required	2		Repeat at 10-14 day intervals

## Notes

Do not apply when crop it 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)

<sup>1</sup> NA13 is an adjuvant designed to improve adhesion, deposition and penetration of the spray solution on the leaf surface. NA13 should be added at 0.1% of the spray volume, e.g 100ml in 100 litres of water. Maintain agitation and apply immediately after mixing.

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 18

Foliar Nutrition - Specialities

## Use

As a specialised foliar feed and plant growth stimulant for plants requiring extra iron, particularly in times of stress, or in a regular nutrient management programme to boost a wide range of nutrient levels

## Crops

Horticultural crops requiring additional iron (Fe)

## Pack Size

10 litres

## Function of Bio 18

Bio 18 provides the benefits of naturally occurring kelp and a balanced combination of macro and micro nutrients. The biostimulants and nutrients found in Bio 18 improve root growth and nutrient uptake to a greater level than when the two are applied separately. Bio 18 can be used to the best effect when the crop is under stress but specific deficiencies should be treated with the relevant foliar product.



Analysis	w/w	w/v
Biostimulant	18.4%	28%
Nitrogen (N)	12.0%	18.0%
Phosphate (P <sub>2</sub> O <sub>5</sub> )	12.0%	18.0%
Potassium (K <sub>2</sub> O)	12.0%	18.0%
Magnesium (MgO)	0.66%	1.0%
Iron (Fe EDTA)	2.0%	3.0%
Manganese (Mn EDTA)	480mg/kg	740mg/L
Copper (Cu EDTA)	480mg/kg	740mg/L
Zinc (Zn EDTA)	480mg/kg	740mg/L
Boron (B)	190mg/kg	290mg/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 NAI3<sup>1</sup>.

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 18 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
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 <sup>2</sup>	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 <sup>2</sup>	Early spring growth and autumn	2	0.5-2	Promotes root growth and improves canopy cover Use lower rate on young plants and repeat after 14 days
Protected Soft Fruit	4-8 true leaves	2		Use early to promote root growth, later applications will help to improve bud promotion.
Outdoor Soft Fruit		3		
Tree Fruit	Once new leaf is 80% open	3		Promotes growth, protects against stress, aids fruit swell and skin finish.

## Notes

Bio 18 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 66-67, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk)

<sup>1</sup> NAI3 is an adjuvant designed to help with improved adhesion, deposition and penetration of the spray solution on the leaf surface. NAI3 should be added at 0.1% of the spray volume, e.g. 100ml in 100 litres of water. Maintain agitation and apply immediately after mixing.

<sup>2</sup> Use **Bio 20** instead of **Bio 18** on plants that are sensitive to leaf scorch when under stress.

# Bio 20

Foliar Nutrition - Specialities

## 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 NA13<sup>1</sup>.

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 <sup>2</sup>	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 <sup>2</sup>	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 <sup>2</sup>	4-8 true leaves	2		Use early to promote root growth, later applications will help to improve bud development
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 66-67, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk)

<sup>1</sup> NA13 is an adjuvant designed to help with improved adhesion, deposition and penetration of the spray solution on the leaf surface. NA13 should be added at 0.1% of the spray volume, e.g. 100ml in 100 litres of water. Maintain agitation and apply immediately after mixing.

<sup>2</sup> Use Bio 18 instead of Bio 20 on plants requiring additional iron, such as ericaceous plants, blueberries, strawberries, raspberries or plants struggling to extract sufficient iron from the growing media.

# Micromex

Foliar Nutrition - Specialities

## Use

To provide a balanced combination of micronutrients, magnesium and sulphur to promote plant yield and quality.

## Crops

Most horticultural crops.

## Pack Size

10 litres

## Function of Micromex

Micronutrients are essential for plant development and maximising crop yield. However, under certain circumstances they can become deficient in plant tissue owing to adverse growing conditions such as soil compaction, soil pH, lack of moisture, in the growing media.

Micromex provides the crop with a balanced range of micronutrients that can be readily absorbed through plant leaves.



Analysis	w/w	w/v
Magnesium (MgO)	1.0%	1.3%
Sulphur (SO <sub>3</sub> )	3.5%	4.5%
Iron (Fe EDTA)	2.0%	2.6%
Zinc (Zn EDTA)	2.0%	2.6%
Manganese (Mn EDTA)	1.5%	2.0%
Boron (B)	0.75%	1.0%
Copper (Cu EDTA)	0.25%	0.33%
Molybdenum (Mo)	250mg/kg	300mg/L

## Directions for Use

Use Micromex when deficiencies are diagnosed or suspected, or when growing conditions will prevent the effective uptake of nutrients from the soil.

Apply 0.75-1.5 L/ha, in a minimum of 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 Micromex 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 start of flowering	1		When deficiency is suspected or identified. Repeat if necessary at 10-15 day intervals
Lettuce and Leafy Salads	From transplanting to maturity	1		When deficiency is suspected or identified. Repeat if necessary at 10-15 day intervals. Use the higher rate of 1.5 L/ha if the crop canopy is dense
Hardy Nursery Stock Protected Ornamentals	As required	1	1	Apply when deficiency is suspected or diagnosed, repeat after 10-14 days
Soft Fruit	After establishment	1		Apply up to 3 applications at 30 day intervals

## Notes

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

Micromex can be tank mixed with products from the Folex range to create a balanced nutrient feed.

For further information on compatibility and tank mixing refer to the section on pages 66-67, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk)

# SuperMn

Foliar Nutrition - Specialities

## Use

To correct manganese deficiency.

## Crops

Most horticultural crops.

## Pack Size

10, 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 grwing 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 (soil grown)	Start of flowering	1.5		Strawberries apply at green bud
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 66-67, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk)

# Folex® Range

Foliar Nutrition - Boron

## Use

To correct micronutrient deficiency

## Crops

Most horticultural crops.

## Pack Size

10 litres

## Function of Folex Range

A range of single micronutrient supplements formulated as sulphates or in chelated form..



Nutrient	Product	Analysis w/w	Analysis w/v
Boron (B)	Folex B	11.0%	15.0%
Copper Sulphate (Cu)	Folex Cu 6	5.0%	6.0%
Magnesium Sulphate (MgO)	Folex Mg 9	7.3%	9.0%
Manganese Sulphate (Mn)	Manganese 17.5	12.3%	17.5%
Zinc Sulphate (Zn)	Folex Zn	11.0%	15.0%

## Directions for Use

Applied as directed below. Foliar uptake will be enhanced by the addition of NA13<sup>1</sup> 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 NA13 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 B	Folex Cu 6	Folex Mg 9	Mn 17.5	Folex Zn
Protected Edibles	When deficiency is diagnosed or suspected, or prior to rapid growth	2	2	2.5	2	1
Field Vegetables	When deficiency is diagnosed or suspected, or prior to rapid growth	2	2	7.5	3	1
Bulbs & Outdoor Flowers	From 10cm high but before flowering	2	2	7.5	3	1
Hardy Nursery Stock	Apply to new season growth or when deficiency is diagnosed or suspected	N/A	2	3	2	1
Protected Ornamentals	When deficiency is diagnosed or suspected, or prior to rapid growth	2	2	2	2	1
Soft Fruit	From start of flowering to fruit set	2	1	3	3	1
Tree Fruit	From petal fall (copper - after harvest, manganese - before flowering)	2	0.5	7.5	3	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 66-67, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk)

<sup>1</sup> NA13 is an adjuvant designed to help with improved adhesion, deposition and penetration of the spray solution on the leaf surface. NA13 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.

# Folex® K 39

Foliar Nutrition - Potassium Nitrate

## 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

Most horticultural crops.

## Pack Size

10 , 1000 litres



Analysis	w/w	w/v
Nitrogen (N)	7.5%	11.0%
Potassium (K <sub>2</sub> O)	26.5%	39.0%

## Directions for Use

Use Folex K 39 when potash deficiency is diagnosed or suspected. Foliar uptake will be enhanced by the addition of NA13<sup>1</sup> unless already in tank mix with a pesticide.

Apply 2-5 L/ha in 200-600 L/ha water.

Small areas: rare in ml/L of water as below, apply to the point of run off. Do not exceed 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 Folex K 39 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
Lettuce and leafy salads	From 4-6 true leaves	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 & main flowering period	2		Apply up to 4 applications at 10-14 day intervals
Hardy Nursery Stock	As required	5	3	Apply when deficiency is suspected, repeat after 10-14 days
	For hardening late season	2	2	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	From green bud	2		To promote fruit set and improve fruit quality
	As required	5		Apply when deficiency is suspected, repeat after 10-14 days
Tree Fruit	During bud initiation & end of flowering period	5		Repeat at 10-14 day intervals during petal fall
	Post harvest	5		Apply before leaf fall to harden off before winter

## 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 66-67, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk)

<sup>1</sup> NA13 is an adjuvant designed to help with improved adhesion, deposition and penetration of the spray solution on the leaf surface. NA13 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.

# OMEX Iron Range

Foliar Nutrition

## Use

To correct iron deficiency and increase colour of foliage.

## Crops

Most horticultural crops from fruit to shrubs. Iron EDTA is particularly useful on ericaceous crops such as Laurels, Rhododendrons and Roses.

## Pack Size

See below



## Function of OMEX Iron Range

A range of single micronutrient iron supplements including Folex Fe, Iron EDTA and Iron EDDHA for use in all situations from soil and foliar application to fertigation of hydroponic peat and coir crops.

Product	Pack Size	Analysis w/w	Analysis w/v
Folex Fe (EDTA)	10L		9.2%
Iron EDTA 13%	25kg	13.0%	N/A
Iron EDDHA	20kg	6.0%	N/A

## Choosing the Correct Iron Chelate

Iron availability and pH are inextricably linked, the higher the pH the less available certain irons become. Use the following table for guidance.

Method of Application/ Growing Medium	Soil/Solution pH		
	<6.5	6.5-7.5	>7.5
Hydroponics, Rockwool, Growbags, Coir	Iron EDTA 13%	Iron EDDHA 6%	Correct the pH
Soil Application, Fertigation	Iron EDTA 13%	Iron EDDHA 6%	Iron EDDHA 6%
Foliar Application, all Growing Media	Folex Fe		

## ◆ Directions for Use

Apply as directed below in 500-1000 L/ha water. Do not exceed a solution concentration of 100g/100 litres (0.1%) on any fruit crops.

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 product and add to the tank whilst maintaining constant agitation. Add

## Folex Fe

Crop	Timing	Rate L/ha	Rate ml/L water	Comments
All crops except below <sup>1</sup>	When deficiency symptoms first appear	1	1	Apply when deficiency is suspected or diagnosed repeat after 10-14 days. Do not apply during flowering
Hardy Nursery Stock	When deficiency symptoms first appear	2	2	Apply when deficiency is suspected or diagnosed repeat after 10-14 days. Do not apply during flowering

## Iron EDTA and Iron EDDHA

Crop	Type of Application	Timing	Iron EDTA 13%	Iron EDDHA 6%
Protected Edibles	Hydroponics/Fertigation	As part of a managed programme	0.75g/100L water	1.7g/100L water
Field Vegetables	Soil Application	Pre-planting/pre-emergence	1-2 kg/ha	3-5 kg/ha
Bulbs & Outdoor Flowers	Fertigation	First signs of chlorosis	0.75g/100L water	1.7g/100L water
Hardy Nursery Stock	Hydroponics/Fertigation	Managed programme	0.75g/100L water	1.7g/100L water
	Soil Application	Newly planted		1-1.2 g/L
Protected Ornamentals	Hydroponics/Fertigation	As part of a managed programme	0.75g/100L water	1.7g/100L water
Soft Fruit <sup>1</sup>	Hydroponics/Fertigation	As part of a managed programme	0.75g/100L water	1.7g/100L water
	Soil Application		0.5kg/100m row	750g/100m row
Tree Fruit <sup>1</sup>	Soil Application	Newly planted	10g/tree	20g/tree
		Onset of Cropping	20g/tree	40g/tree
		Full production	60g/tree	120g/tree

## ◆ 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 66-67, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk)

<sup>1</sup> Do not exceed a solution concentration of 1g/L (0.1%) on any fruit crops.

# Sulphomex®

Foliar Nutrition - Ammonium Thiosulphate

## Use

To correct nutrient deficiency.

## Crops

Most field grown horticultural crops.

## Pack Size

20, 1000 litres



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 (dormant)	Apply when the crop is dormant	3	Apply post pruning, but before blossom and at a minimum rate of 1L/200L/ha water and a maximum rate of 3L/ha in a minimum of 600L water/ha.
Other Field Vegetables	When crop is 15cm tall, or 6 true leaves	5	Repeat after 10-14 days if deficiency is severe

## 🔹 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 66-67, and for physical compatibility with pesticides refer to the website [www.omex.co.uk](http://www.omex.co.uk)



# Biomex Starter®

Organic Range

## Use

To stimulate the growth of roots, increase plant tolerance to abiotic stress and reduce susceptibility to root attack by pathogens 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 shield the plant roots from pathogenic fungal attack, and 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
- 5 - Giving improved yields

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 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

An organic foliar nutrient which stimulates plants to create an environment around leaves and roots that is uninviting to a range of pests such as aphids, thrips, whitefly, spider mites, vine weevil and root flies, as well as providing a natural source of sulphur. Gard S is not a pesticide, it does not control the pest but it boosts the plants tolerance to pest attack.



## Directions for use

Use Gard S as a deterrent against a range of insect pests or 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 3-12.5 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	6.25	First application. Dose at 1:100 (or 12.5L/1000L water dose at 1:200.) Final concentration 1mL/16.5L. Draw the solution from the top of the tank using a standard H frame filter
	Ongoing treatment	3	Second and further applications: Dose at 1:100(or 6L per 1000L water, dose at 1:200L ). Final concentration 1ml/33L. Revert to the higher rate 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, 1000 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, grain or root formation.

Always add NA13<sup>1</sup> or an organic approved wetter, unless in a tank mix with a pesticide.

Apply at 1-2ml/L water (1-2 L/ha), in 200-1000L/ha water, plus NA13 at 0.1% of the spray volume.

The spray tank should be filled with half the required water if applicable, add the required amount of NA13 to the 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	1-2		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	1-2	1-2	Repeat at 10-14 day intervals
Tree fruit	Petal fall	2		Repeat at 10-14 day intervals
Vines	As required	2		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)

<sup>1</sup> NA13 is an adjuvant designed to improve adhesion, deposition and penetration of the spray solution on the leaf surface. NA13 must be added at 0.1% of the spray volume, e.g 100ml in 100 litres of water. Maintain agitation and apply immediately after mixing.



# 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

25 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%		
Plus micronutrients					

## 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 <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 requires
Vineyards/ Wine Grapes	As a foliar spray	2-3	3 min	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> 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 66-67, 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, 20, 1000 litres

## Function of Organomex Range of NPK Foliar Fertilisers

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 both higher nitrogen or higher potassium content to suit the growth stage or the crop to be treated. There is also a balanced product 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 Kali 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%	8.75%	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%	2.5%	1.5%	1.0%	2.0%
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, Zn 40mg/L, Cu 15 mg/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
Fertigation, drip tape and trickle			2.5-5	Dilute the product with water to make a 10% stock solution e.g 5L Organomex in 10L of water, use this stock solution to apply to the crop at a final concentration at 5ml/L of water. Final dilution would be 0.5%

## 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 14708N

## Use

1. To improve foliar uptake of deposits, fungicides, insecticides and foliar nutrients through better distribution and faster drying
2. As a dry wash to reduce visible residues prior to harvest or sale. For best results apply regularly
3. As a growing media wetter/re-wetter, through drip or overhead irrigation, or as a drench

## Crops

All agricultural, horticultural and forestry crops.

## Pack Size

5, 200, 1000 litres

## Function of Kobra

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

Kobra reduces stains caused by deposition of salts left on leaves from hard water, foliar nutrients and chemicals. When used as a dry wash Kobra significantly improves the visual appearance of fruits and leaves if applied just prior to harvest or sale. It is particularly suitable for protected edibles, cut flowers and ornamentals.

When applied as a growing media wetter/re-wetter, Kobra will give even penetration throughout the growing media and soil. Kobra will provide even wetting and re-wetting of growing media reducing surface tension of the irrigated liquid. The result is smaller or no dry patches as well as less risk of shrinkage. Laboratory tests have shown similar wetting performance to the industry standard.



## 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.

Use the dilution rates below. For foliar applications with pesticides use the water volume per hectare recommended on the pesticide label.

Use	Timing	Rate % of Total Volume	Rate ml/L water	Comments
As a pesticide or nutrient adjuvant	Any time	0.03%	0.3	e.g. 60 ml in 200L of water  Use the water volume recommended on the pesticide label. As a nutrient adjuvant use a minimum of 200 L/ha water
As a dry wash pre-harvest or pre-sale with a sprayer	After final applications of nutrient/chemical	0.03%  0.015-0.02%		Apply as a single application in a minimum 100 L/ha water  Use the lower rates for repeat applications  Leave sufficient time to dry before, for best results apply on a regular basis.
As a dry wash pre-harvest using overhead irrigation	After final applications of nutrient/chemical	0.03%	0.3	Irrigate with clean water for 5 mins. Irrigate with Kobra solution for 1 min.  Leave sufficient time to dry before harvest. For best results apply on a regular basis.

Use	Timing	Rate % of Total Volume	Rate ml/L water	Comments
New growing media wetter - first application	First application	0.05-0.1%	500-1000	Apply 1-2000L of water per 10,000L growing media
Growing media wetter - regular applications	Contant	0.001%	10	Apply 1000L of water per 10,000L growing media  (If a lower water volume of 500L per 10,000L growing media is used, doouble the inclusion rate of Kobra)
	Weekly	0.01%	100	
	Monthly	0.025%	250	
	Quaterly	0.05%	500	

If using a stock solution at a ratio of 1:100, please follow the recommendations below:

Stock Dilution		Final Solution Applied at 1:100 (1%)	
Rate % of Volume	Rate ml/1000L water	Kobra (ml/L stock solution)	Water (ml/L stock solution)
0.001%	10	0.1	999.9
0.01%	100	1	999
0.025%	250	2.5	997.5
0.05%	500	5	995

## ◆ Notes

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

# NA13

Adjuvants

## Use

To improve adhesion, deposition and penetration of the spray solution on the leaf surface. NA13 is particularly useful when the target is small, waxy, or the canopy is dense.

## Crops

All horticultural crops.

## Pack Size

1 litre

## Function of NA13

Foliar nutrients are widely used in agriculture and horticulture for correcting deficiencies and supplying regular doses of key elements to aid crop development and improve harvest quality. Although foliar nutrition can be a more precisely targeted method of delivering the crop's requirements than bulk fertilisers applied to soil, it can be a challenge to achieve rapid uptake through the leaf surfaces.

The main methods of entry are through the stomata (mainly on the undersides of leaves in most plant species) or through the waxy cuticle on the upper leaf surfaces. Environmental conditions at the time of application favouring stomatal opening help with uptake through this route, and applications should be made if possible during periods of high humidity, and not at times of high sunlight or heat intensity.

Studies by leading foliar nutrition experts such as Victoria Fernandez (Technical University of Madrid)<sup>1</sup> and Tom Eichert (Bonn University)<sup>2</sup> have shown that absorption through the wider leaf surfaces is greatly helped by wetting the whole surface rather than depositing large droplets, and by extending the drying time (humectancy) of the spray droplets, as nutrients move more easily through the cuticle when in solution.

Unfortunately, the typical soluble salt formulations used in most foliar nutrients have poor wetting and spreading characteristics, little better than water in many cases. Including appropriate adjuvants in the formulations themselves presents difficulties with compatibility, and is difficult to get right since these materials are used at a wide range of rates and water volumes.

A better approach is to add a purpose-made adjuvant to the final spray solution. Tests at the OMEX research facility have shown major improvements in leaf wetting by the addition of NA13 to a wide range of commonly used products.



Product	Rate/ha (200L/ha water)	Leaf Wetting Score* applied alone	Leaf Wetting Score* with NA13 added at 0.1%
Water	N/A	0.37 - 0.50	N/A
Folex Zn	1L	0.43	2.58
Folex Cu	2L	0.72	2.97
Folex P	7L	0.83	2.90

*Leaf wetting assessed (OMEX Trial Ref: 2014/51) using methods described by Fernandez et al. (2006)*

## Directions for Use

Use NA13 with the products listed in the table below if the nutrient would otherwise be used alone or in tank mix with another nutrient. If the nutrient is being tank mixed with pesticides then it is not necessary to include NA13, although inclusion will improve uptake of all products in the mix. Avoid using NA13 in tank mixes with selective herbicides.

Use 0.1% dilution with foliar nutrients in a minimum of 200 L/ha water.

The spray tank should be filled with half the required water. Add the required amount of NA13 to the water before adding any nutrients, maintain constant agitation. Add remaining water to correct dilution and spray.

Product Group	Timing/best use	Rate % of Total Volume	Comments
Biostimulants & Quality Improvement Specialities	While crop is actively growing Early morning, evening, high humidity	0.1	Use with DP98. Use with Vitomex if the target is small or if the canopy is dense
Foliar Nutrition - Specialities	Early morning, evening, high humidity	0.1	Use with Bio 18 and Bio 20 if the target is small
Foliar Nutrition	Early morning, evening, high humidity	0.1	Use with Folex B, Folex Cu, Folex K, Folex Mg, Folex P, Folex Zn and Manganese 17.5

## Notes

<sup>1</sup> See Foliar Fertilization, Scientific Principles and Field Practices, V. Fernández, T. Sotiropoulos and P. Brown, published by the International Fertilizer Industry Association, 2013. Available on line at [www.fertilizer.org](http://www.fertilizer.org)

<sup>2</sup> See Uptake and Release of Elements by Leaves and Other Aerial Plant Parts, by T. Eichert and V. Fernández, Chapter 4 of Mineral Nutrition of Higher Plants, Ed. P. Marschner, 3rd Ed. 2012.

Do not apply in tank mix with pesticides when 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 and biotic 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	<b>All authorised PPPs (at half or less than half the authorised PPP rate).</b>	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
Strawberry, blackberry	Up to and including first fruit development

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.**

# Physical Compatibility

Product	Calomex 105	O-Mix Powders	Biomex Plus	CalMax Ultra	DP98	K50	Kelpak	O-Phyte	Vitomex	Zynergy	Bio 18	Bio 20
Calomex 105		C	C	C	C	C	C	C	C	C	C	C
O-Mix Powders	X		C	X	C	X	C	C	C	C	C	C
Biomex Plus	N	N		N	N	N	N	C	N	N	N	N
CalMax Ultra	C	X	C		C	X	C	C	C	C	C	C
DP98	C	C	C	C		C	C	C	C	C	C	C
K50	X	X	C	X	C		C	X	C	C	C	C
Kelpak	C	C	C	C	C	C		C	C	C	C	C
O-Phyte	C	C	C	C	C	X	C		C	C	C	C
Vitomex	C	C	C	C	C	C	C	C		C	C	C
Zynergy	C	C	C	C	C	C	C	C	C		C	C
Bio 18	C	C	C	C	C	C	C	C	C	C		C
Bio 20	C	C	C	C	C	C	C	C	C	C	C	
Micromex	C	X	C	C	C	X	C	X	C	C	C	C
SuperMn	C	X	C	C	C	X	C	X	C	C	X	X
Folex Range	C	N	N	X	C	X	C	C	C	C	X	X
Folex K 39	C	N	C	C	C	X	C	C	C	C	C	C
Omex Iron Range	C	C	C	C	C	C	C	C	C	C	C	C
Sulphomex	C	C	C	C	C	X	C	C	C	C	C	C
Biomex Starter	C	C	C	C	C	C	C	C	C	C	C	C
Gard S	C	N	C	C	C	C	C	C	C	C	C	C
Greenside	C	C	C	C	C	C	C	C	C	C	C	C
Kelpomex	C	C	C	C	C	X	C	C	C	C	C	C
Organomex Range*	N	N	C	C	N	X	N	C	C	C	C	N
Kobra	N	C	C	N	N	X	C	C	N	N	N	N
NA 13	C	N	C	C	C	C	C	C	C	C	C	C
SW 7	C	N	C	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.

**Key**

**C** = OK to mix

**N** = Not mixed due to method/timing

**X** = Do not mix

Micromex	SuperMn	Folex Range	Folex K 39	Omex Iron Range	Sulphomex	Biomex Starter	Gard S	Greenside	Kelpomex	Organomex Range*	Kobra	NA 13	SW7
C	C	C	C	C	C	C	C	C	C	N	C	C	C
X	X	N	N	C	C	C	N	C	C	N	C	C	C
N	N	N	N	C	N	N	N	N	N	N	N	N	N
C	C	X	C	C	C	C	C	C	C	C	C	C	C
C	C	C	C	C	C	C	C	C	C	N	C	C	C
X	X	X	X	X	X	C	C	C	X	X	C	C	C
C	C	C	C	C	C	C	C	C	C	N	C	C	C
X	X	C	C	C	C	C	C	C	C	C	C	C	C
C	C	C	C	C	C	C	C	C	C	C	C	C	C
C	C	C	C	C	C	C	C	C	C	C	C	C	C
C	C	C	C	C	C	C	C	C	C	C	C	C	C
C	C	C	C	C	C	C	C	C	C	C	C	C	C
C	C	C	C	C	C	C	C	C	C	C	C	C	C
C	X	X	C	C	C	C	C	C	C	N	C	C	C
	C	C	C	C	C	C	C	C	C	C	C	C	C
C		X	C	C	C	C	C	C	C	C	C	C	C
C	C		C	C	C	C	C	C	C	C	C	C	C
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C	C	C	C	C	C	C	C	C	C	C		C	C
C	C	C	N	C	C	C	C	C	C		C	C	C
N	N	N	C	C	C	C	C	C	C	C		C	C
C	C	C	C	C	C	C	C	C	C	C			C
C	C	C	C	C	C	C	C	C	C	C	C		

# 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 [foliar@omex.com](mailto:foliar@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 (SW7 or NA13)

- 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.

Product	Pack Size	Per Box	Per Pallet
<b>Standard Sizes</b>	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
	1000 litres	-	Single IBC
<b>Biomex Duster</b>	1 kilo	24 x 1 kilo	
<b>Kelpak</b>	5 litres	4 x 5 litres	132 x 5 litres
	25 litres	-	32 x 25 litres
	1050 litres	-	Single IBC

# Notes

A series of horizontal dotted lines for writing notes.





**GENERAL ENQUIRIES**

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