



Foliar & Speciality



AGRICULTURE

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.

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.

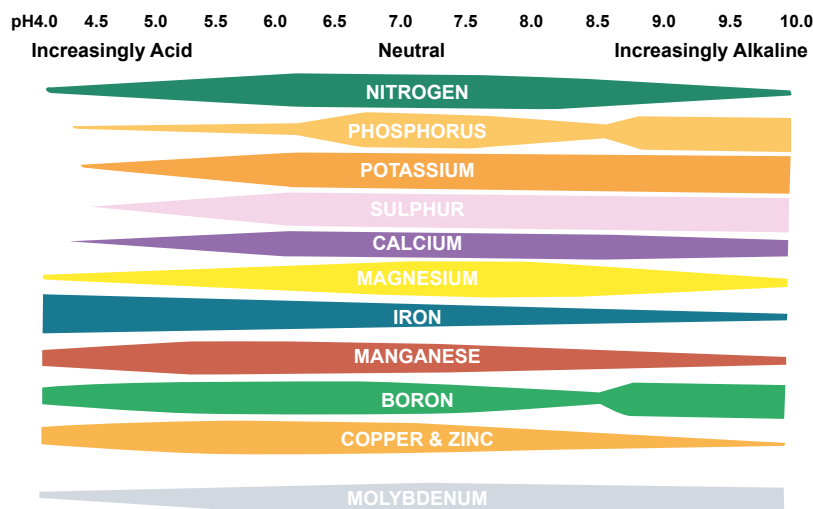
Significance of Soil pH

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 the change in availability of nutrients, crops differ in their relative tolerance to soil pH.

Often fields are treated with lime when the soil pH drops outside of a safe range, however this can reduce the availability of some nutrients hence the crop may need treating with foliar fertilisers to help it overcome transient nutrient shortages.

This is also true for crops planted in fields at the lower (acid) end of the pH scale as some nutrients are less available at the lower pH as well.



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 programme, investigating methods of improving foliar uptake, enhancing crop quality, overcoming crop stress caused by environmental factors, and maximising yield to give growers the best possible returns. OMEX works with more than 25 universities, research institutes, trials organisations, distributors and commercial partners in the UK and many more international contacts on a range of projects including formulation improvements, new crop uses, and new product development. Our extensive in house research programme includes experiments conducted at our dedicated Biolab at King's Lynn for seed germination and small plant studies plus

a controlled environment greenhouse, to allow year-round product screening and plant growth studies. OMEX also conducts an extensive range of fully replicated plot trials in field crops, and larger field-scale comparisons to thoroughly test new products, application techniques and best practice. Complementing the comprehensive range of foliar nutrition products, OMEX is developing an increasing range of agricultural biostimulants and novel biopesticides. Plant biostimulants encompass diverse formulations of compounds, plant extracts and micro-organisms that can be applied to plants or soils to improve crop vigour, yields, quality and tolerance of abiotic stresses.

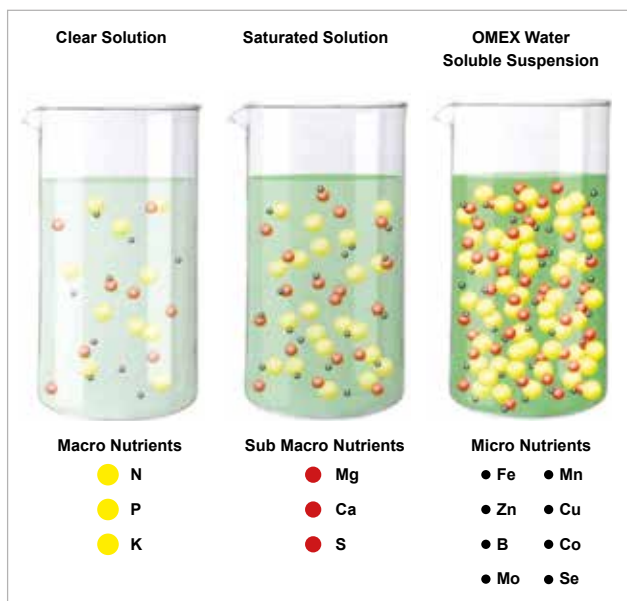
OMEX is fully committed to providing agronomically sound and scientifically proven solutions to the challenges facing our customers.

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 approval is in place for a number of products.

The products available meet the exacting requirements of authorisation whilst maximising the yield potential of the treated crops 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 66.

SAP[®] Testing Services



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

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

The Facts

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

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: NO_3 , 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

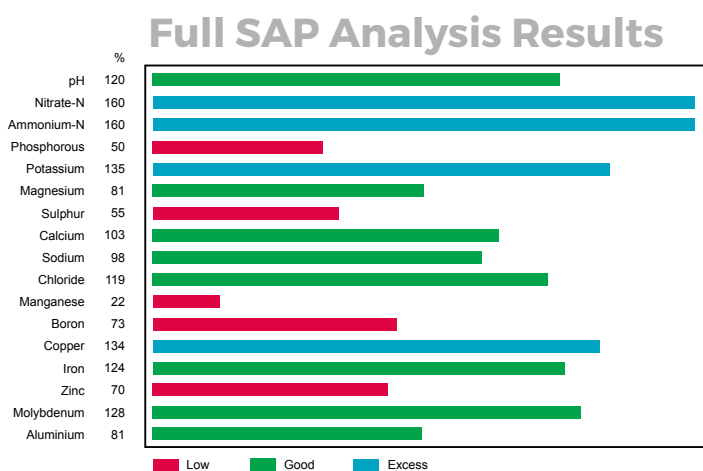
- SAP sampling procedures are crop specific — full details and sampling instruction are supplied in the 'SAP Pack'

- 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 to order your SAP Packs, or telephone 01553 760011.

OMEX Foliar Product Range Nutrient Levels

Product	Major Nutrients %w/v								
	N				P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO
	Total	Ureic N	NH ₄	NO ₃					
Biostimulants and Quality Improvement Specialities									
Biomex Duster	1 x10 ⁹ cfu/g (colony forming units per gram) spores of Bacillus amyloliquefaciens								
CalMax	15.0	2.0	1.0	12.0			3.0		22.5
Folex Caleba	13.5	1.8	0.8	10.9			2.7		20.0
Gard KLD								/	
K50	3.0	3.0				50.0			
Kelpak	0.4				0.8	0.7			0.1
Kickstart	4.0		4.0		38.0	17.5			
Vitomex					24.5	21.5			
Zynergy								9.1	
Foliar Nutrition - Specialities									
3X Solution	10.0	6.0	2.6	1.4	8.0	6.0	0.5	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	
Foliar Nutrition									
Folex B	6.5								
Folex Cu 6								7.5	
Folex K 39	11.0			11.0		39.0			
Folex K 41	3.0					41.0	2.5	18.1	
Folex Mg 9							9.0	17.3	
Folex Mg 13	4.5			9.5			13.5		
Folex Mn 17.5								25.5	
Folex Mn 20	10.0			10					
Folex Mu 35	35.0	14.5							
Folex N	20.0	20.0							
Folex P	15.5		15.5		52.5				
Folex PZ	15.0		15.0		51.5				
Folex Zn								18.5	
Oilseed Extra	20.0	20.0					/	/	
Protein Plus	20.0	20.0							
Protein Plus - S	20.0	18.2	1.8					5.0	
Sulphomex	15.0		15.0					87.0	
Organic Range (typical analysis)									
Gard S								/	
Greenside								9.1	
Kelpomex	0.4				0.8	0.7			0.1
Organomex 3-1-8	4.0				1.5	10.0	0.4	2.0	1.5
Organomex 5-2-5	6.5				2.5	6.5	0.4	2.0	1.5
Organomex 6-2-4	7.5				2.5	5.0	0.4	2.0	1.5
Organomex 7-2-2	8.5				2.5	5.0	0.4	2.0	1.5

Micronutrients mg/L						SG	Notes
B	Cu	Fe	Mn	Mo	Zn		
						1.00 - 1.04	
750	600	750	1,500	15	300	1.48 - 1.52	
1000	530	675	1350	14	265	1.48	Ca as %
						1.48 - 1.52	
						1.02 - 1.06	High auxin & amino acid kelp extract,
						1.32 - 1.36	38% phosphite
	5,000		250		1,350	1.36 - 1.40	24.5% phosphite
	26,600				47,200	1.23 - 1.27	
110	280	3,000	280	5	280	1.21 - 1.25	
290	730	1,460	730	12	730	1.50 - 1.54	28% Biostimulant
10,000	3,300	26,000	20,000	300	26,000	1.32 - 1.36	
			11.5			1.32 - 1.36	Mn as %
15.0						1.35 - 1.39	B as %
	6.0					1.16 - 1.20	Cu as %
						1.44 - 1.48	
						1.52 - 1.56	
						1.21 - 1.25	
						1.30 - 1.35	
			17.5			1.40 - 1.44	Mn as %
			20.0			1.43 - 1.47	Mn as %
						1.23 - 1.27	slow release N
						1.09 - 1.13	
						1.40 - 1.44	
					2,500	1.39 - 1.43	
					15.0	1.32 - 1.36	Zn as %
	/		/	/	/	1.11 - 1.15	
						1.09 - 1.13	
						1.11 - 1.15	
						1.32 - 1.36	
						1.20 - 1.30	Garlic Extract
	26,600				47,200	1.23 - 1.27	
						1.02 - 1.06	High auxin & amino acid
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

Biomex® Starter

Biostimulants & Quality Improvement

Use

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

Crops

Potatoes

Pack Size

1 litre



Toxicology

Neither phytotoxic nor phytopathogenic effects have been observed in greenhouse and field trials.

Function of Biomex® Starter

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

1. Improved germination
2. Improved rooting leading to increased plant vigour
3. Resulting in Earlier bulking
4. Giving Improved yields

The benefits of *Bacillus amyloliquefaciens* are likely 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.

Composition

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

Directions for Use

Biomex Starter is suitable for seed coating and mixing with soil. Efficacy will be optimised when soil temperatures exceed 10°C.

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

Seed Coating – apply immediately before or during the planting process by treating seed tubers in chitting trays, in bulk bins or in the planter hopper. Complete and even distribution on the tubers will aid efficacy.

Soil Application – incorporate within the ridge to ensure placement in proximity to the seed potato. It is not suitable for overall application.

Crop	Timing	Rate	Comments
Potatoes - Seed Coating	Immediately before or during planting	1-3ml/kg of seed (1-3 L/t)	Complete and even distribution on the tubers will aid efficacy. Use the higher rate when planting in beds. Consult OMEX for detailed advice
Potatoes - Soil Application	During planting	0.5-1 L/ha	Apply to tubers and soil surrounding tubers. Use the higher rate when planting in beds. See detailed application guidelines below

Soil Application Guidelines

1. Biomex Starter can be applied with Organomex as a liquid placement fertiliser. This is the easiest application method and requires no additional equipment or adaptations. Dilute 0.5-1L of Biomex Starter in the volume of liquid fertiliser required per hectare. Maintain agitation, apply within 8 hours of mixing.
2. Alternatively, Biomex Starter can be applied using an on-planter fungicide applicator. If Biomex Starter is being applied alone, there is no need to avoid application directly to the planted tubers, and it would be possible to replace the normal dual nozzle system with a single, larger aperture nozzle to reduce the risk of blockages. Dilute 0.5-1L Biomex Starter in 25-50 L water per ha. Maintain agitation, apply within 8 hours of mixing.
3. In furrow applicators where the material is pre-mixed with water It is essential to provide agitation to the tank, and to take care only to mix and apply the correct quantities so that material is not left standing in the tank or spray lines.

Storage

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

CalMax®

Biostimulants & Quality Improvement

Use

Protects against Internal Rust Spot in potatoes and Tip Burn in lettuce. CalMax also prevents a number of calcium linked disorders in other crops.

Crops

Potatoes and a wide range of vegetable and salad crops

Pack Size

10, 1000 litres

Function of CalMax®

CalMax is specially formulated for foliar application to provide a balanced uptake and utilisation of nutrients by the plants.



Analysis	w/w	w/v
Nitrogen (N)	10.0%	15.0%
Calcium (CaO)	15.0%	22.5%
Magnesium (MgO)	2.0%	3.0%
Manganese (Mn EDTA)	1000 mg/kg	1500 mg/L
Iron (Fe EDTA)	500 mg/kg	750 mg/L
Boron	500 mg/kg	750 mg/L
Copper (Cu EDTA)	400 mg/kg	600 mg/L
Zinc (Zn EDTA)	200 mg/kg	300 mg/L
Molybdenum	10 mg/kg	15 mg/L

Directions for Use

Use CalMax as directed below, in a minimum of 200 L/ha water. Foliar uptake will be enhanced by the addition of SW7¹.

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

Crop	Timing	Rate L/ha	Comments
Broccoli	4-6 applications starting shortly before head formation	3.5 - 5	Brown beard reduction
Brussels Sprouts	Multiple applications	4 - 8.5	Internal browning reduction
Cabbage, Cauliflower, Lettuce, Endive	4-6 applications starting immediately prior to head formation	3.5 - 5	Tip burn reduction
Carrots	Prior to strawing	3	Apply twice at 14 day intervals
Celery, Chicory	Weekly applications starting before blackheart symptoms arise	3.5 - 5	Black heart reduction
Potatoes	Multiple applications from early hook stage	2.5 - 5	Internal Rust Spot reduction/ improved skin finish. Apply with 1 L/ha DP98

Notes

For further information on compatibility and tank mixing refer to the section on pages 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ SW7 should be used to improve the wetting and spreading of the mixture. Use SW7 if it will be difficult to achieve good coverage, the leaves are waxy or tightly layered, or with dense crop canopies. See page 68 for details.

Folex® Caleba

Biostimulant & Quality Improvement

Use

Protects against Internal Rust Spot in potatoes, Tip Burn in lettuce, and other calcium related disorders. Folex Caleba also increases fruit, leaf and stem firmness.

Crops

Potatoes and a wide range of vegetable and salad crops

Pack Size

5, 10, 1000 litres

Function of Folex Caleba

Folex Caleba 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 low metabolic activity. 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)	8.8%	13.5%
Calcium (CaO)	13.3%	20%
Magnesium (MgO)	1.7%	2.7%
Boron (B)	670mg/kg	1000mg/L
Manganese (Mn EDTA)	900mg/kg	1350mg/L
Iron (Fe EDTA)	450mg/kg	675mg/L
Copper (Cu EDTA)	360mg/kg	530mg/L
Zinc (Zn EDTA)	180mg/kg	265mg/L
Molybdenum (Mo)	9mg/kg	14mg/L

◆ Directions for Use

Use Folex Caleba as directed below, in 200-400 L/ha water. Foliar uptake will be enhanced by the addition of SW7¹ on waxy or tightly layered crops.

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

Crop	Timing	Rate L/ha	Comments
Broccoli, Cabbage, Cauliflower, Lettuce, Endive	4-6 applications during growing season	1-2	Improves stem strength and flower firmness. Helps extended storage and shelf life. Brown beard reduction shortly before head formation. Tip burn reduction
Brussel Sprouts	2-4 applications during bud formation	1-2 ²	Internal browning reduction. Improves leaf firmness. Helps extend shelf life bud/head formation
Carrots	2-4 applications during growing season	1	Begin application after full canopy
Celery, Chicory	Weekly applications starting before blackheart symptoms arise	1	
Potatoes	Apply at tuber initiation and 10-14 days later	1-2	Internal Rust Spot reduction/ improved skin finish. Use the higher rate on sensitive varieties

◆ Notes

For further information on compatibility, tank mixing and for physical compatibility with pesticides refer to the website www.omex.com

¹ SW7 should be used to improve the wetting and spreading of the mixture. Use SW7 if it will be difficult to achieve good coverage, the leaves are waxy or tightly layered, or with dense crop canopies. See website www.omex.com for details.

² Use the higher rate and reduce the interval if crops are under stress or undergone rapid growth.



Gard KLD

Foliar Nutrition - Specialities

Use

To reduce sulphur deficiency and improve crop health.

Crops

All crops.

Pack Size

5 litres



Function of Gard KLD

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

◆ Directions for Use

Use Gard KLD to reduce sulphur deficiency and to promote root growth. Foliar uptake will be enhanced by the addition of SW71, and soil penetration will be enhanced by the use of Kobral in non-organic situations.

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

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

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

◆ Notes

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

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

K50

Biostimulants & Quality Improvement

Use

To correct nutrient deficiency and promote plant health

Crops

A wide range of crops including cereals, potatoes, maize, lettuce and leafy salads.

Pack Size

10, 1000 litres



Function of K50

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

K50 is based on potassium carbonate. 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 ₂ 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 (ICM) programme.

Apply 2-5 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 K50 and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Field Vegetables	As required	2	Apply as part of an ICM programme. Repeat as necessary at 10-14 day intervals
Maize	2 - 8 leaves	2	Apply when deficiency is suspected, repeat after 10-14 days
		5	Apply when deficiency is diagnosed. Repeat as necessary
Potatoes	Spring	2	Apply as part of an ICM programme, or when SAP analysis shows low nutrient status. Repeat as necessary at 10-14 day intervals
	Bulking	5	Generally 2-4 applications 10-14 days apart
Lettuce and Leafy Salads	As required	2	Apply a part of an ICM programme. Repeat as necessary at 10-14 day intervals
		5	Apply when deficiency is diagnosed. Repeat as necessary

◆ 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

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 agricultural crops.

Pack Size

5, 20, 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 (per litre)

Nutrients

Nitrogen	3.6g	Phosphorus	8.2g	Potassium	7.2g
Magnesium	0.2g	Calcium	0.8g		
Plus micronutrients					

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P.O. Box 325, Simon' s Town, South Africa 7995

◆ Directions for Use

Fill spray tank with half the required amount of water. After shaking the container, measure the required amount of Kelpak and add to the tank while maintaining agitation. Add remaining water to correct dilution and spray.

◆ Dilution

Apply 2 – 4L/ha in a minimum of 200 L/ha.

Crop	Timing	Rate		Comments
		m/L	L/ha	
Alliums (Onions and Garlic)	Apply 14 days post transplant or 3-4 leaf stage and repeat in 14-21 days		1 - 2	Apply when abiotic stress is predicted. Repeat in 14-21 days. Don't treat when bulb swelling starts.
Brassicas, Salad Module and cell tray propagation	Weekly during establishment	2	1 - 2	As A drench pre-transplant then in 14 days and Alternate with Bio 20
Cereals and Maize	2 - 6 leaves to first node (GS12-15)		1 - 2	Apply when growth is restricted, or abiotic stress conditions are expected
Grassland & Silage	Early spring and post cut to reduce abiotic stress		1 - 2	To deal with abiotic stress conditions, repeat as necessary every 14 days.
Legumes, Field & Root Vegetables	Spray at 3-5 leaf stage or when stress is predicted.		1 - 2	To deal with abiotic stress conditions, repeat as necessary every 14-21 days.
Oilseed rape	Start of spring growth, rosette (BBCH 28-30)		1 - 2	Repeat 14-21 day intervals if required
Potatoes	2 weeks prior and at Tuber set		2	To deal with abiotic stress conditions repeat as necessary every 14 days.
Sugar Beet	4 - 8 leaf stage		2 - 3	Promotes root development and alleviate stress
Other crops	Early growth		2 - 3	As required 2-3 times at 14-21 day intervals

◆ Notes on Compatibility

Do not tank mix with cytokinin products as this will negate the benefit of auxin stimulation. Do not tank mix with copper based fungicides. For further information on compatibility and tank mixing, and for physical compatibility with pesticides refer to the website www.omex.co.uk

◆ Organic Crops - Kelpomex

For growers of certified organic crops there is a specific organic approved formulation available; Kelpomex, see page 56 for details.

Do not tank mix with copper based fungicides. For further information on compatibility and tank mixing refer to the section on pages 72-74, and for physical compatibility with pesticides refer to the website.

Kickstart®

Biostimulants & Quality Improvement

Use

To improve establishment and increase rooting.

Crops

Most crops including cereals, oilseed rape and sugar beet.

Pack Size

10, 1000 litres

Function of Kickstart®

Kickstart can significantly improve root growth and crop establishment in cereals, oilseed rape and sugar beet, especially when seedbed and weather conditions are not ideal.

Phosphites as Biostimulants

Used at low rates on young plants, phosphites act as biostimulants, promoting early root growth and plant establishment. In 2012, OMEX commissioned the start of a series of controlled and fully replicated experiments aimed at establishing if this effect could be quantified, and the results have shown there were significant differences between phosphite formulations and application rates.



Analysis	w/w	w/v
Nitrogen (N)	3.0%	4.0%
Phosphate (P ₂ O ₅)	28.0%	38%
Water Soluble Phosphate (P ₂ O ₅)	0.0%	0.0%
Phosphite (as P ₂ O ₅)	28.0%	38%
Potassium (K ₂ O)	13.0%	17.5%

Directions for Use

Use Kickstart where an increase in rooting is required, such as on late drilled crops, when seedbed and weather conditions are not ideal for growth, or as part of a crop management programme to significantly improve rooting and establishment. Foliar uptake will be enhanced by the addition of NA13¹ unless in tank mix with a pesticide.

Apply 0.5-1 L/ha, in a minimum of 200 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 Kickstart. After shaking the container, measure the required amount of Kickstart and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	From 3 - 4 leaf stage	1	Use to improve establishment on backward crops or in poor growing conditions
Oilseed Rape	From 2-4 true leaves	1	Promotes root growth and top growth prior to winter dormancy
Sugar Beet	From 2-4 true leaves	0.5-1	Use the higher rate when soil is cold or weather conditions are not ideal for growth
Other Crops	From 3-4 leaves	1	Use to improve establishment on backward crops or in poor growing conditions

Notes

As with any other phosphite product, Kickstart aids the uptake of tank mix partners so OMEX does not recommend tank mixes with selective herbicides in cereals, as selectivity may be reduced.

For further information on compatibility and tank mixing refer to the section on pages 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

Vitomex®

Biostimulants & Quality Improvement

Use

To improve plant health and tolerance of abiotic stress.

Crops

A wide range of agricultural 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 (ie K, Ca, Mg, Mn)



Analysis	w/w	w/v
Phosphate (P_2O_5)	18.0%	24.5%
Water soluble Phosphate (P_2O_5)	0.0%	0.0%
Phosphite (as P_2O_5)	18.0%	24.5%
Potassium (K_2O)	16.0%	21.5%
Copper	4000mg/kg	5000 mg/L
Zinc	1000mg/kg	1350 mg/L
Manganese	200mg/kg	250mg/L

Directions for Use

Use Vitomex as directed below. Foliar uptake will be enhanced by the addition of NA13¹ unless in tank mix with a pesticide, NA13 is recommended if the target is small or the canopy is dense.

Apply 1.5 – 2L/ha, in a minimum of 200 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 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	Comments
Brassicas ²	From 2-4 true leaves	2	Repeat as necessary
Carrots, parsnips or other root crops ²	3-4 leaves	2	Repeat after 10-14 days
Lettuce & leafy salads	7-10 after planting	2	Repeat after 10-14 days
Legumes	From 6-8 true leaves	1.5-2	Repeat after 10-14 day intervals
Onions & Leeks	3-4 leaves	2	Repeat as necessary
Potatoes ²	At planting	2	In furrow treatment
	At tuber initiation	2	Foliar application

Notes

¹ 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. See page 66 for details.

² 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. See page 68 for details.

For further information on compatibility and tank mixing refer to the section on pages 70-71, and for physical compatibility with pesticides refer to the website 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 ₃)	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.

Foliar uptake will be enhanced by the addition of NA13¹ unless in a tank mix with a pesticide.

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

The spray tank should be filled with half the required water. If applicable, add the required amount of 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	Comments
Brassicas Lettuce and Leafy Salads	From 2-4 true leaves	1	Repeat at 1-4 week intervals if necessary
Carrots, parsnips or other root crops	From 3-4 true leaves	1	Repeat after 10-14 days
Cereals	End of tillering - GS30 Repeat at GS31	0.5-1	Tank mix with T0 and T1 fungicides
Legumes	From 6-8 true leaves	1	Repeat at 10-14 day intervals
Potatoes	From tuber initiation	0.5	Repeat at 7-10 day intervals in tank mix with blight fungicides
Other crops	As required	0.5-1	Repeat as necessary

◆ Notes

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

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

¹ 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. See page 66 for details.

For further information on compatibility and tank mixing refer to the section on pages 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

3X Solution

Foliar Nutrition - Specialities

Use

In a regular nutrient management programme, at times of crop stress or to improve a wide range of nutrient levels.

Crops

A wide range of agricultural crops including combinable crops, potatoes, sugar beet and vegetables.

Pack Size

10, 500, 1000 litres

Function of 3X Solution

3X Solution is a high quality foliar treatment for maximising yield potential in a wide range of crops. A regular programme using 3X Solution can help improve crop quality and yield and can prevent the crop from being susceptible to nutrient deficiency. Applications of 3X Solution will also help crops to overcome periods of stress and will assist less forward crops to reach their potential. 3X Solution is readily assimilated by the crop ensuring a good response to the treatment.



Analysis	w/w	w/v
Nitrogen (N)	8.0%	10.0%
Phosphate (P ₂ O ₅)	6.5%	8.0%
Potassium (K ₂ O)	5.0%	6.0%
Magnesium (MgO)	0.4%	0.5%
Sulphur (SO ₃)	0.8%	1.0%
Iron (Fe EDTA)	2440mg/kg	3000mg/L
Manganese (Mn EDTA)	225mg/kg	280mg/L
Copper (Cu EDTA)	225mg/kg	280mg/L
Zinc (Zn EDTA)	225mg/kg	280mg/L
Boron	90mg/kg	110mg/L
Cobalt (Co EDTA)	3mg/kg	4mg/L
Molybdenum	4mg/kg	5mg/L

◆ Directions for Use

Foliar uptake will be enhanced by the addition of NA13¹ unless applied in tank mix with a pesticide.

Apply 3-10 L/ha, in a minimum of 200 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 3X Solution. After shaking the container, measure the required amount of 3X Solution and add to the tank whilst maintaining constant agitation. Add the remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	From early tillering	3-5	Apply if soil and weather conditions prevent optimum growth or to relieve crop stress. Repeat 14 - 21 days later if required
Oilseed Rape	From 2-4 true leaves	3-5	Apply if soil and weather conditions prevent optimum growth or to relieve crop stress. Repeat 14 - 21 days later if required
Potatoes ²	First application 1 month after planting	3-5	Follow with 2 - 4 applications at 14 day intervals
Sugar Beet	From 6 true leaves	3-5	Follow with 2 - 4 applications at 14 day intervals
Vegetables ²	As required or when stress is evident	3-10	Repeat as necessary every 10 - 14 days

◆ Notes

For further information on compatibility and tank mixing refer to the section on pages 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

² SW7 may be used as an alternative adjuvant on potatoes and vegetables. Use SW7 if it will be difficult to achieve good coverage, the leaves are waxy or tightly layered, or with dense crop canopies. See page 68 for details.

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 agricultural 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%
Nitrogen (N)	13.2%	20.0%
Phosphate (P ₂ O ₅)	13.2%	20.0%
Potassium (K ₂ 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	190mg/kg	290mg/L
Cobalt (Co EDTA)	8mg/kg	12mg/L
Molybdenum	8mg/kg	12mg/L

◆ Directions for Use

Apply 3 L/ha for most crops or 2-5 L/ha for potatoes, in a minimum of 200 L/ha water.

If the target is small, foliar uptake will be enhanced by the addition of NA13¹.

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	Comments
Cereals	2-6 leaves to 1st node	3	Apply if soil and weather conditions prevent optimum growth or to relieve crop stress. Promotes root growth and improves uptake of nutrients from the soil
Oilseed Rape	Early spring growth	3	Apply if soil and weather conditions prevent optimum growth or to relieve crop stress. Promotes root growth and improves uptake of nutrients from the soil
Legumes, Field and Root Vegetables	As required or when stress is evident	3	Repeat as necessary every 10-14 days
Grassland	As required or when stress is evident	3	Repeat as necessary every 10-14 days
Potatoes	3-4 weeks after emergence	2	Promotes root growth and improves canopy cover
	Bulking	5	Follow with 2-3 applications at 14 day intervals once crop meets across the rows
Sugar Beet	4-8 leaf stage	3	Promotes root growth, protects against stress

◆ 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

Micromex

Foliar Nutrition - Specialities

Use

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

Crops

Most agricultural 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 soil moisture.

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 ₃)	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	0.75%	1.0%
Copper (Cu EDTA)	0.25%	0.33%
Molybdenum	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 L/ha water.

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	Comments
Brassicas, lettuce and leafy salads	From transplanting to maturity	1-1.5	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
Cereals	From early tillering to 1st node	1	When deficiency is suspected or identified. Repeat if necessary at flag leaf emergence
Legumes	As soon as there is sufficient leaf area	0.75	When deficiency is suspected or identified. Repeat if necessary after 10 days
Onions	As soon as there is sufficient leaf area	0.75	When deficiency is suspected or identified. Repeat if necessary at 10-15 day intervals
Potatoes	After crop meets along the rows	1	When deficiency is suspected or identified. Repeat if necessary at 15 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

SuperMn

Foliar Nutrition - Specialities

Use

To correct manganese deficiency.

Crops

Most agricultural crops including cereals, oilseed rape and potatoes, sugar beet, legumes and vegetables.

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 ₃)	13.1%	17.5%
Manganese	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 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 SuperMn and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	Autumn/Spring	1.5	Maintenance dressing onto actively growing foliage
		3	When deficiency is suspected or identified
Legumes	As soon as there is sufficient leaf area	1.5	Maintenance dressing onto actively growing foliage
	10-15cm high	3	When deficiency is suspected or identified If deficiency symptoms persist, repeat 7-10 days after flowering at 1.5 L/ha
Oilseed Rape	Spring	3	When deficiency is suspected or identified. Repeat if necessary
Potatoes	After crop meets along the rows	3	When deficiency is suspected or identified If deficiency symptoms persist, repeat 7-10 days after flowering at 1.5 L/ha. Repeat if necessary
Sugar Beet	4-6 true leaves	1.5	Maintenance dressing onto actively growing foliage
Vegetables	As required	3	When deficiency is suspected or identified. Repeat if necessary

◆ 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

🔥 Pack Size - 10,1000 litres

Analysis	w/w	w/v
Nitrogen	4.7%	6.5%
Boron (B)	11.0%	15.0%

🔥 Directions for Use

Applied as directed below, Folex B can improve crop performance by reducing or preventing boron deficiency. Foliar uptake will be enhanced by the addition of NA13¹ unless already in tank mix with a pesticide.

Apply 3-5 L/ha, in a minimum of 200 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 Folex B. After shaking the container, measure the required amount of Folex B and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Carrots and Field	6-8 leaves	3	Apply as a 2 spray programme where deficiency exist
Brassicas	2-3 weeks later	3	
Oilseed Rape	Autumn	3	Apply before winter dormancy where deficiency exists
	Stem Elongation	3	Apply a maximum of two sprays where deficiency exists
	Flower Bud	3	Apply the final dose before buds turn yellow
Sugar Beet Fodder Beet Red Beet	Pre-emergence	5	Apply to soils containing less than 0.8mg/kg (ppm) boron
	6-8 leaves	3	Where deficiency exists Folex B should be applied as a 2 spray programme, either 1 soil & 1 foliar application, or 2 foliar applications
	2-3 weeks later	3	Apply the final dose before the crop meets across the rows

🔥 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

Folex[®] Cu 6

Foliar Nutrition - Copper Sulphate

🔥 Pack Size - 10,1000 litres

Analysis	w/w	w/v
Copper	5.0%	6.0%
Sulphur (SO ₃)	6.5%	7.5%

🔥 Directions for Use

Use Folex Cu 6 when deficiency is diagnosed or suspected on soils where conditions are likely to cause copper deficiency in the crop. Foliar uptake will be enhanced by the addition of NA13¹ unless already in tank mix with a pesticide.

Apply 1-2 L/ha, in a minimum of 200 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 Folex Cu 6. After shaking the container, measure the required amount of Folex Cu 6 and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	Spring	1	Apply where known deficiency exists before symptoms appear
	Late spring and summer	2	Apply when symptoms appear and repeat as necessary
Onions, Leeks	Once crop is established	2	A second application may be required in dry seasons
Other crops	As required	2	Apply where known deficiency exists before symptoms appear
		2	Repeat as necessary

🔥 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

Folex[®] K 39

Foliar Nutrition - Potassium Nitrate

🔥 Pack Size - 10,1000 litres

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

🔥 Directions for Use

Use Folex K 39 when potash deficiency is diagnosed or suspected, or as part of a nutrient management programme on potatoes. Foliar uptake will be enhanced by the addition of NA13¹ unless already in tank mix with a pesticide.

Apply 2-5 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 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	Comments
Cereals	Spring	2	Apply when deficiency is suspected, or when SAP analysis shows low nutrient status. Repeat as necessary at 10-14 day intervals
Maize	2-8 leaves	2	Apply when deficiency is suspected, repeat after 10-14 days
		5	Apply when deficiency is diagnosed. Repeat as necessary
Potatoes	Spring	2	Apply when deficiency is suspected, or when SAP analysis shows low nutrient status. Repeat as necessary at 10-14 day intervals
	Bulking	5	Generally 2-4 applications 10-14 days apart
Other crops	As required	2	Apply when deficiency is suspected, repeat after 10-14 days
		5	Apply when deficiency is diagnosed. Repeat as necessary

🔥 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

Folex® K 41

Foliar Nutrition - Potassium Sulphate

◆ Pack Size - 10,1000 litres

Analysis	w/w	w/v
Nitrogen (N)	2.0%	3%
Potassium (K ₂ O)	26.5%	41.0%
Magnesium (MgO)	1.6%	2.5%
Sulphur (SO ₃)	11.8%	18.1%

◆ Directions for Use

Use Folex K 41 when potash deficiency is diagnosed or suspected and the crop also requires sulphur, or as part of a nutrient management programme on potatoes. Foliar uptake will be enhanced by the addition of NA13¹ unless already in tank mix with a pesticide.

Apply 2-5 L/ha, in a minimum of 200 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 Folex K 41. After shaking the container, measure the required amount of Folex K 41 and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	Spring	2	Apply when deficiency is suspected, or when SAP analysis shows low nutrient status. Repeat as necessary at 10-14 day intervals
Maize	2-8 leaves	2	Apply when deficiency is suspected, repeat after 10-14 days
		5	Apply when deficiency is diagnosed. Repeat as necessary
Potatoes	Spring	2	Apply when deficiency is suspected, or when SAP analysis shows low nutrient status. Repeat as necessary at 10-14 day intervals
	Bulking	5	Generally 2-4 applications 10-14 days apart
Other crops	As required	2	Apply when deficiency is suspected, repeat after 10-14 days
		5	Apply when deficiency is diagnosed. Repeat as necessary

◆ 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

Folex[®] Mg 9

Foliar Nutrition - Magnesium Sulphate



🔥 **Pack Size** - 10, 500, 1000 litres

Analysis	w/w	w/v
Magnesium (MgO)	7.5%	9.0%
Sulphur (SO ₃)	14.0%	17.3%

🔥 Directions for Use

Use Folex Mg 9 when magnesium deficiency is diagnosed, when SAP analysis shows low nutrient status, or as part of a nutrient management programme. Foliar uptake will be enhanced by the addition of NA13¹ unless already in tank mix with a pesticide.

Apply 3-7.5 L/ha in a minimum of 200 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 Folex Mg 9. After shaking the container, measure the required amount of Folex Mg 9 and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	Start of tillering	3	Maintenance
	Ear emergence	7.5	Where deficiency is identified – repeat if necessary
		5	To improve grain fill
Milling Wheat	Flowering to grain milky ripe	5	To improve grain fill when mixed with Protein Plus
Oilseed Rape Grassland	Onset of spring growth	3	Maintenance
		7.5	Deficiency – repeat if necessary
Potatoes ²	When rows meet As required	3	Maintenance
		7.5	Deficiency – repeat if necessary
Sugar Beet	6 leaf stage As required	3	Maintenance
		7.5	Deficiency – repeat if necessary
Vegetables & legumes ²	As required	7.5	Where deficiency is identified

🔥 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

² SW7 may be used as an alternative adjuvant on potatoes, legumes, and vegetables crops. Choose SW7 if it will be difficult to achieve good coverage, the leaves are waxy or tightly layered, or with dense crop canopies. See page 68 for details.

Folex[®] Mg 13

Foliar Nutrition - Magnesium Nitrate

🔥 Pack Size - 10, 500, 1000 litres

Analysis	w/w	w/v
Nitrogen (N)	7.0%	9.5%
Magnesium (MgO)	10.0%	13.5%

🔥 Directions for Use

Use Folex Mg 13 when magnesium deficiency is diagnosed, when SAP analysis shows low nutrient status, or as part of a nutrient management programme. Foliar uptake will be enhanced by the addition of NA13¹ unless already in tank mix with a pesticide.

Apply 3-7.5 L/ha in a minimum of 200 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 Folex Mg 13. After shaking the container, measure the required amount of Folex Mg 13 and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	Start of tillering	3	Maintenance
	Ear emergence	7.5	Where deficiency is identified – repeat if necessary
		5	To improve grain fill
Milling Wheat	Flowering to grain milky ripe	5	To improve grain fill when mixed with Protein Plus
Oilseed Rape	Onset of spring growth	3	Maintenance
Grassland		7.5	Deficiency – repeat if necessary
Potatoes ²	When rows meet As required	3	Maintenance
		7.5	Deficiency – repeat if necessary
Sugar Beet	6 leaf stage As required	3	Maintenance
		7.5	Deficiency – repeat if necessary
Vegetables & legumes ²	As required	7.5	Where deficiency is identified

🔥 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

² SW7 may be used as an alternative adjuvant on potatoes, legumes, and vegetables crops. Choose SW7 if it will be difficult to achieve good coverage, the leaves are waxy or tightly layered, or with dense crop canopies. See page 68 for details.

Folex[®] Mn 17.5

Foliar Nutrition - Manganese Sulphate



🔥 Pack Size - 10,1000 litres

Analysis	w/w	w/v
Manganese	12.0%	17.5%
Sulphur (SO ₃)	18.0%	25.5%

🔥 Directions for Use

Use Folex Mn 17.5 when deficiency is diagnosed or suspected, or as a maintenance dressing to prevent less than optimum growth. Foliar uptake will be enhanced by the addition of NA13¹ unless already in tank mix with a pesticide.

Apply 1.5 - 3 L/ha, in a minimum of 200 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 Folex Mn 17.5. Measure the required amount of Folex Mn 17.5 and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	Autumn/Spring	1.5	Maintenance dressing onto actively growing foliage
Oilseed Rape	Spring	3	When deficiency is suspected or identified Repeat if necessary
Legumes ²	As soon as there is sufficient leaf area	1.5	Maintenance dressing onto actively growing foliage
		3	When deficiency is suspected or identified If deficiency symptoms persist, repeat 7-10 days after flowering at 1.5 L/ha
Potatoes ²	After crop meets along the rows	3	When deficiency is suspected or identified. If deficiency symptoms persist, repeat 7-10 days after flowering at 1.5 L/ha. Repeat if necessary
Sugar Beet	4-6 true leaves	1.5	Maintenance dressing onto actively growing foliage
Vegetables ²	As required	3	When deficiency is suspected or identified. Repeat if necessary

🔥 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

² SW7 may be used as an alternative adjuvant on potatoes, vegetables, peas and beans. Choose SW7 if it will be difficult to achieve good coverage, the leaves are waxy or tightly layered, or with dense crop canopies. See page 68 for details.

Folex[®] Mn 20

Foliar Nutrition - Manganese Nitrate

🔥 Pack Size - 10, 1000 litres

Analysis	w/w	w/v
Nitrogen	6.5%	10.0%
Manganese	13.5%	20.0%

🔥 Directions for Use

Use Folex Mn 20 when deficiency is diagnosed or suspected, or as a maintenance dressing to prevent less than optimum growth. Foliar uptake will be enhanced by the addition of NA13¹ unless already in tank mix with a pesticide.

Apply 1.25 - 2.5 L/ha, in a minimum of 200 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 Folex Mn 20. Measure the required amount of Folex Mn 20 and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	Autumn/Spring	1.25	Maintenance dressing onto actively growing foliage
Oilseed Rape	Spring	2.5	When deficiency is suspected or identified. Repeat if necessary
Legumes ²	As soon as there is sufficient leaf area	1.25	Maintenance dressing onto actively growing foliage
		2.5	When deficiency is suspected or identified. If deficiency symptoms persist, repeat 7-10 days after flowering at 1.5L/ha
Potatoes ²	After crop meets along the rows	2.5	When deficiency is suspected or identified. If deficiency symptoms persist, repeat 7-10 days after flowering at 1.5L/ha. Repeat if necessary
Sugar Beet	4-6 true leaves	1.25	Maintenance dressing onto actively growing foliage
Vegetables ²	As required	2.5	When deficiency is suspected or identified. Repeat if necessary

🔥 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

² SW7 may be used as an alternative adjuvant on potatoes, legumes, and vegetables crops. Choose SW7 if it will be difficult to achieve good coverage, the leaves are waxy or tightly layered, or with dense crop canopies. See page 68 for details.

Folex[®] MU 35

Foliar Nutrition

♦ **Pack Size** - 1000 litres, also available in bulk

Analysis	w/w	w/v
Total N	28.0%	35.0%
Urea N	11.5%	14.5%
Methylene Urea	16.5%	20.5%

♦ Directions for Use

Use Folex MU 35 on crops that require continual supply of foliar applied N to achieve optimum yield performance. Folex MU 35 is particularly useful where soil applied N has not been used efficiently or conditions prevented timely application. Best results are achieved with early morning or late evening application, when nitrogen is readily absorbed and utilised by the crop.

Apply 20 – 30 L/ha, in 200 L/ha water, to make a 10% spray solution.

Apply 30L/ha in a minimum of 200L/ha water. The spray tank should be filled with 20% of the required water, add any plant protection products. Top up to 60% of the required water. Measure the required amount of Folex MU 35 and add to the tank whilst maintaining constant agitation. Add the remaining water and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	GS39	30	Single application
	GS31-39	20	Repeat lower dose as required
Oilseed Rape	Green to yellow bud	30	
Maize	From 6 to 8 leaves	20-25	Use as a single application
Other Crops	As Required	20-30	

♦ Notes

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

Folex MU 35 is physically compatible with most fungicides and insecticides.

However, it is recommended samples are tank mixed and checked for compatibility prior to filling the sprayer.

🔥 Pack Size - 20,1000 litres

Analysis	w/w	w/v
Nitrogen (N)	18.0%	20.0%

🔥 Directions for Use

Use Folex N when deficiency is diagnosed or suspected, to boost yield, to increase protein in milling wheat, or as part of a nitrogen nutrient management programme on potatoes and other crops.

Apply 25-200 L/ha, in a minimum of 200 L/ha water.

Milling Wheat – For best results apply 200 L/ha Folex N diluted with 100L/ha water.

The spray tank should be filled with half the required water. Measure the required amount of Folex N and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	As required	60	Apply when deficiency is suspected, or when SAP analysis shows low nutrient status
Oilseed rape		60	
Feed Wheat	Flag leaf emerged	60	Two applications to boost yield
	Ear emergence	60	
Milling Wheat	Grain milky ripe	200	Apply to boost protein Trials indicate an average 1.1% increase in protein
Grassland	After mowing or grazing	60	Apply at the onset of regrowth after the first cut or graze. Apply a further application after the second cut
Lettuce and Leafy Salads	As required	25	If deficiency symptoms persist, repeat after 7-10 days
Potatoes	From 2 weeks after tuber initiation	50	Apply a maximum of 4 applications during the bulking phase for baker/ware crops
Root Vegetables and Brassicas	As required	60	Apply a maximum of 4 applications during the bulking phase for baker/ware crops

🔥 Notes

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

For further information on compatibility and tank mixing refer to the section on pages 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

💧 Pack Size - 10, 500, 1000 litres

Analysis	w/w	w/v
Nitrogen (N)	11.0%	15.5%
Phosphate (P ₂ O ₅)	37.0%	52.5%

💧 Directions for Use

Use Folex P when phosphate deficiency is diagnosed or suspected, when crop demand is high and cannot be met by soil reserves or as part of a nutrient management programme on potatoes. Foliar uptake will be enhanced by the addition of NA13¹ unless already in tank mix with a pesticide.

Apply 7-17.5 L/ha, in a minimum of 200 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 Folex P. Measure the required amount of Folex P and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	Spring	7	Apply when deficiency is suspected, when soil/weather conditions prevent adequate phosphate uptake through the roots, or when SAP analysis shows low nutrient status Repeat as necessary at 10-14 day intervals
Maize	4-8 leaves	7	Apply when deficiency is suspected, when soil/weather conditions prevent adequate phosphate uptake through the roots, or when SAP analysis shows low nutrient status Repeat as necessary at 10-14 day intervals
Potatoes	7-10 days after tuber initiation	17.5	At 7-10 days after start of tuber initiation. Crops are usually meeting along the rows at this stage
Other crops	As required	7	Apply when deficiency is suspected, repeat after 10-14 days if required

💧 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

◆ Pack Size - 10, 500, 1000 litres

Analysis	w/w	w/v
Nitrogen (N)	10.5%	15.0%
Phosphate (P ₂ O ₅)	36.5%	51.5%
Zinc	0.18%	0.25%

◆ Directions for Use

Use Folex PZ when phosphate deficiency is diagnosed or suspected, when crop demand is high and cannot be met by soil reserves or as part of a nutrient management programme. Foliar uptake will be enhanced by the addition of NA13¹ unless already in tank mix with a pesticide.

Apply 7-15 L/ha, in a minimum of 200 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 Folex PZ. Measure the required amount of Folex PZ and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Maize	4-8 leaves	7	Apply when deficiency is suspected, when soil/weather conditions prevent adequate phosphate uptake through the roots, or when SAP analysis shows low nutrient status Repeat as necessary at 10-14 day intervals
Potatoes	7-10 days after tuber initiation	15	At 7-10 days after start of tuber initiation crops are usually meeting along the rows at this stage

◆ 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

Folex[®] Zn

Foliar Nutrition - Zinc Sulphate

◆ Pack Size - 10, 1000 litres

Analysis	w/w	w/v
Sulphur (SO ₃)	14.0%	18.5%
Zinc	11.0%	15.0%

◆ Directions for Use

Use Folex Zn when zinc deficiency is diagnosed or suspected. Foliar uptake will be enhanced by the addition of NA13¹ unless already in tank mix with a pesticide.

Apply 1-2 L/ha, in a minimum of 200 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 Folex Zn. Measure the required amount of Folex Zn and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Brassicas	4 - 6 leaves	1 - 2	Repeat as necessary
Maize	4 - 8 leaves	1 - 2	Apply early to aid rapid growth Repeat 14-21 days later
Onions & Leeks	3 - 4 true leaves	1 - 2	Apply early to aid rapid growth Repeat 14-21 days later
Potatoes	20cm high	1 - 2	Repeat as necessary

◆ 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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

¹ 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. See page 66 for details.

Oilseed Extra

Foliar Nutrition

💧 **Pack Size** - 1000 litres, also available in bulk

Analysis	w/w	w/v
Nitrogen (N)	18.0%	20%
Plus Magnesium, Sulphur, Micronutrients and a Biostimulant.		

💧 Directions for Use

Use Oilseed Extra to boost yield in oilseed rape.

Apply 200 L/ha, for best results apply early morning or late evening and add a further 100L/ha water.

The spray tank should be filled with Oilseed Extra whilst maintaining constant agitation. Add water to correct dilution and continue to agitate before spraying.

Crop	Timing	Rate L/ha	Comments
Oilseed Rape	After full petal fall	200	For best results apply up to a week after full petal fall

💧 Notes

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

HGCA work recommends application of foliar N any time between mid-flowering and two weeks after the end of flowering. Petals do not absorb nitrogen, so applications to flowering crops can mean much of the nitrogen is not utilised. One of the main drivers of the responses is the prolonging of growth as the pods fill and the seed matures, so later application (after all pods are set) is more effective.

For further information on compatibility and tank mixing refer to the section on pages 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk

Protein Plus - S

Foliar Nutrition

♦ **Pack Size** - 1000 litres, also available in bulk

Analysis	w/w	w/v
Nitrogen (N)	18.0%	20.0%

Analysis	w/w	w/v
Nitrogen (N)	18.0%	20.0%
Sulphur (SO ₃)	4.0%	5.0%

♦ Directions for Use

Protein Plus is applied at the milky ripe stage by conventional sprayer with fan jets. Best results are achieved from early morning or late evening application, when the nitrogen is rapidly absorbed and utilised by the crop. It is recommended that applications made during the day are diluted with 100L/ha of water.

Measure the required amount of product and add to the tank whilst maintaining constant agitation. Add water to correct dilution if needed.

Crop	Timing	Rate L/ha	Comments
Milling Wheat	Grain milky ripe (GS 75)	200	If yields are expected to be sufficiently high to impact on grain protein content, increase rate of Protein Plus to 250 L/ha

♦ Notes

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

For further information on compatibility and tank mixing refer to the section on pages 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk.

♦ Hagberg Falling Number

It is possible to improve the HFN in crops by including 1 L/ha of the biostimulant Kelpak. Kelpak helps protect crops from losing HFN and has been shown to increase yield when tank-mixed with Protein Plus. Kelpak can also help reduce the risk of scorch for applications in stress conditions. See page 20 for details.

Sulphomex®

Foliar Nutrition - Ammonium Thiosulphate

💧 Pack Size - 10, 500 litres

Analysis	w/w	w/v
Nitrogen (N)	11.5%	15.0%
Sulphur (SO ₃)	65.0%	87.0%

💧 Directions for Use

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

Apply 1-10 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
Cereals	Autumn/early spring	2-5	For best results apply at the start of spring growth so long as there is sufficient crop cover
Oilseed Rape	Start of stem extension	2-5	Maintenance, apply early during maximum growth
Grassland	Early Spring	5-10	Apply at the start of spring growth so long as there is sufficient crop cover
	Late spring	5-10	After 1st cut and 2nd cut
Potatoes	During bulking	1.5-5	Deficiency
Sugar Beet	End of July	2-5	Helps reduce amino-N levels
Brassicas	From 4-6 true leaves	1.5-2	Maintenance, apply early during maximum growth
Other Field Vegetables	When crop is 15cm tall, or 6 true leaves	1-2	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 70-71, and for physical compatibility with pesticides refer to the website www.omex.co.uk



Gard S

Organic Range - Garlic Extract

Use

To correct nutrient deficiency and promote crop health.

Crops

Most agricultural and horticultural crops including brassicas, carrots & swedes, lettuce and leafy salads.

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. Foliar uptake will be enhanced by the addition of SW7¹.

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

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.

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
Potatoes - Soil Application	When sulphur deficiency is diagnosed or suspected	2	Repeat 10-14 days later if required

◆ 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 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.

¹ SW7 may be used as an adjuvant. 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. See page 74 for details.

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 cereals, potatoes, brassicas, legumes, vegetables, lettuce and leafy salads.

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 ₃)	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.

Apply at 0.5-1 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 Greenside and add to the tank whilst maintaining constant agitation. Add remaining water to correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Brassicas Lettuce and Leafy Salads	From 2-4 true leaves	1	Repeat at 1-4 week intervals if necessary
Carrots, parsnips or other root crops	From 3-4 true leaves	1	Repeat after 10-14 days
Cereals	End of tillering - GS30 Repeat at GS31	0.5-1	Tank mix with T0 and T1 fungicides
Legumes	From 6-8 true leaves	1	Repeat at 10-14 day intervals
Potatoes	From tuber initiation	0.5	Repeat at 7-10 day intervals in tank mix with blight fungicides
Other crops	As required	0.5-1	Repeat as necessary

◆ Notes

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

For further information on compatibility and tank mixing refer to the web site www.omex.co.uk



Kelpomex

Biostimulants & Quality Improvement

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 agricultural crops.

Pack Size

5, 20, 1050 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 (per litre)

Nutrients

Nitrogen	3.6g	Phosphorus	8.2g	Potassium	7.2g
Magnesium	0.2g	Calcium	0.8g		
Plus micronutrients					

Directions for Use

Use Kelpomex as directed below. Apply 1.5-4 L/ha for most crops, in 200-600 L/ha water. Small areas: rate 1 ml/L as below, apply to the point of run off. Do not exceed 10 L/100 m² 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	Comments
Cereals	2-5 leaf stage (GS 12-15)	1.5 - 2	Increases tillering, root growth, protects against stress An optional 2nd application may be made 3-6 weeks later
Milling Wheat	Grain Milky Ripe (GS 75)	1	Apply to improve Hagberg Falling Number and protein
Oilseed Rape Legumes	As soon as spring growth is evident	2.5	Promotes root growth, protects against stress
Potatoes	During planting to promote tuber numbers	4	Apply with placed liquid fertiliser or use as an in-furrow applicator
Sugar Beet	4-8 true leaves	3	Promotes root growth, protects against stress, improves overall yield. May have a beneficial effect on sugar content
Vegetables Modules	4 true leaves 1-2 weeks after transplant	2 - 3	Repeat applications 14-21 days later to stimulate growth and improve shelf life. Maximum dose per crop is 6 litres
Grassland	Early spring	2	Promotes vigorous spring growth, reduces die-back in late summer, aids recovery after grazing/cutting, helps establishment of new leys Repeat mid summer or at re-tillering

Notes

Do not tank mix with cytokinin products as this will negate the benefit of auxin stimulation. Do not tank mix with copper based fungicides. For further information on compatibility and tank mixing, refer to the website www.omex.co.uk

Do not tank mix with copper based fungicides. For further information on compatibility and tank mixing refer to the section on pages 70-71, and for physical compatibility with pesticides refer to the website.



Organomex[®] Range

Organic Range

Use

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

Crops

Any organic crops.

Pack Size

10, 1000 litres



Function of Organomex[®] 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) decompose 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 3-1-8		Organomex 5-2-5		Organomex 6-2-4		Organomex 7-2-2	
	w/w	w/v	w/w	w/v	w/w	w/v	w/w	w/v
Nitrogen (N)	3.0%	4.0%	5.0%	6.5%	6.0%	7.5%	7.0%	8.4%
Phosphorus (P ₂ O ₅)	1.0%	1.5%	2.0%	2.5%	2.0%	2.5%	2.0%	2.4%
Potassium	8.0%	10%	5.0%	6.5%	4.0%	5.0%	2.0%	2.4%
Typically each formulation also includes (w/v)	Ca 1.5%, SO ₃ 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	Comments
Potatoes	First application at tuber initiation Then as required	5 - 10		Follow with up to 3 further applications at 10-14 day intervals if required (in a minimum of 200 litres of water)
Brassicas, Lettuce and Leafy Salads Other 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 (in a minimum of 200 litres of water)
Cereals Oilseed Rape	Early growth or as required	5 - 10		Follow with up to 2 further applications at 14 -21 day intervals if required (in a minimum of 200 litres of water)
Sugar Beet	2-4 leaf stage as required	5 - 10		Follow with up to 3 further applications at 14 day intervals if required (in a minimum of 200 litres of water)
Fertigation, drip tape and trickle			2.5-5	Make up a stock solution at 1:10 (to thin the product) and add this at a final concentration of 2.5-5mls stock solution per litre of water Final dilution 0.25-0.5%

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.

DIDIN®

Fertiliser Additives

Use

With any nitrogen fertiliser, including organic manures, to allow the full season's nitrogen requirement to be applied at one time, while reducing leaching losses.

Crops

Most agricultural crops.

Pack Size

10, 500, 1000 litres, or pre mixed with fertiliser.

Function of DIDIN®

The management of nitrogen is critical to achieve optimum crop yield and gross margin. DIDIN is formulated with nitrification and urease inhibitors which control the release of nitrate nitrogen, increasing yields, reducing application costs and simplifying nitrogen management of the crop. By controlling the release of nitrate into the soil solution, DIDIN can significantly reduce losses of the potent greenhouse gas nitrous oxide into the atmosphere.

Cereals: The unique formulation of DIDIN allows the grower to apply all of the nitrogen in just one dose, saving on additional application costs.

Potatoes: The controlled release of nitrogen following use of DIDIN reduces nitrate leaching losses ensuring that the potato crop can utilise more of the nitrogen applied.

Organic Manures: Most of the available nitrogen applied with slurries in the autumn and winter is lost through leaching and volatilization to the atmosphere and water courses. DIDIN reduces these losses, ensuring that valuable nitrogen is available in the spring.

The bacteriostatic action of one of the nitrification inhibitors in DIDIN, dicyandiamide, works selectively on *Nitrosomonas europaea* controlling the oxidation of ammonium to nitrate. By keeping the nitrogen in the ammonium form which is less prone to leaching, nitrogen losses can be kept to a bare minimum. Dicyandiamide is broken down as soil temperature increases. DIDIN therefore releases more nitrogen as the crop requires it. When applied with slurry in the winter months, DIDIN can stabilise the nitrogen until the crop can use it in the spring.



Composition

Dicyandiamide plus urease inhibitors.

Directions for Use

Liquid Fertiliser: Add half of the fertiliser to the spray tank, add the required amount of DIDIN whilst agitating then add the remaining fertiliser. Maintain agitation whilst spraying.

Granular Fertiliser: Apply before application of granular fertiliser using spray nozzles. Total spray volume should be a minimum of 200 L/ha.

Organic Manures: It is important to ensure that the DIDIN and slurry are well mixed. If using an umbilical cord system, use a proportional injection system. If using a slurry tanker, add DIDIN during filling. DIDIN can also be sprayed on to the ground before spreading the digestate or organic manure.

Nitrogen Source	Timing	Soil Type	Rate L/ha
Liquid Nitrogen Fertiliser (UAN)	Spring	Light Medium Heavy/Peat	12.5 10 8
Granular Amonium Nitrate			
Granular/Liquid Urea	Spring	Light Medium Heavy/Peat	12.5 10 8
Potato Fertiliser			
Injected	Spring	Light	6
Broadcast	Spring	Light	12.5
Organic Manures	Autumn		20-25
	Winter		15-20
AD Digestate	Spring		10-15

Split Programmes on Winter Cereals:

If a 3-split programme is being replaced by a 2-split programme with DIDIN (where the 2nd and 3rd splits are applied together), the inclusion rates for DIDIN in the 2nd application are:

Nitrogen Source	Timing	Soil Type	Rate L/ha
Liquid Nitrogen Fertiliser (UAN)	March/ April	Light	8.0
Granular Amonium Nitrate		Medium	6.0
		Heavy/Peat	5.0

Notes

DIDIN is not normally mixed with pesticides. DIDIN is however physically compatible with the full range of OMEX Multiflo fertilisers. Applications of Nitroflo with DIDIN in April still requires the addition of NitroShield urease inhibitor to meet the requirements of the Red Tractor Farm Assurance standard in England.

For further information on compatibility and tank mixing, and for physical compatibility with pesticides refer to the website www.omex.co.uk

NitroShield[®] (25% NBPT)

Fertiliser Additives



Use

Use with Nitroflo liquid nitrogen and Multiflo High NPK range, to reduce the risk of ammonia volatilisation in warm or dry conditions. The addition of NitroShield in these conditions will improve nitrogen use efficiency (NUE). Used correctly NitroShield will meet the requirements of the Red Tractor Farm Assurance standard.

Crops

Most agricultural crops.

Pack Size

10 litres.

Function of NitroShield

In warm dry conditions, or on alkaline soils, liquid nitrogen fertiliser (UAN) such as Nitroflo can lose a small amount of the N applied as volatilised ammonia. This is dependent on conditions at the time of application and shortly afterwards, if the weather remains warm and dry the risk of volatilisation increases.

Nitrogen losses in these conditions can be mitigated by including NitroShield with Nitroflo at time of application.

NitroShield is a urease inhibitor, based on NBPT. NBPT strongly blocks three active sites of the urease enzyme which delays urea hydrolysis and thereby reduces ammonia losses.

Composition

25% w/w (272g/L) NBPT (N(n-Butyl)thiophosphoric triamide)

Crops and Timing

Crop	Timing
Winter Cereals	Main top-dressing applications in April & May
Spring Cereals	April/May top-dressing applications
OSR	Final application in April
Sugar Beet & Maize	Pre-emergence applications
Grass	All top-dressing applications during April-September

Directions for Use

Use NitroShield in tank mix with Nitroflo to reduce the risk of ammonia losses during the months of April to September. In England from 2024 applications of Nitroflo made after 31st March must include an effective urease inhibitor such as NitroShield unless agronomic justification is provided by a FACTS qualified adviser, e.g. losses are mitigated by rapid incorporation.

In Scotland, Wales and Northern Ireland liquid fertilisers containing urea can be applied according to the relevant legislation.

Add half of the fertiliser to the spray tank, slowly add the required amount of NitroShield whilst agitating then add the remaining fertiliser. If possible, add directly to the spray tank. If using an induction hopper, rinse with liquid fertiliser rather than water. Maintain agitation whilst spraying.

Application Rate - Per cubic metre of Nitroflo

Use the reduced rate of 1.0 L of NitroShield per m³ of Nitroflo if **ALL** the following conditions apply:

- Soils are neutral or slightly acidic
- The crop canopy provides full coverage of the soil
- Ambient temperature is not expected to be more than 15°C within 24 hours of application
- A FACTS qualified advisor has recommended it

Use the full rate of 1.25 L of NitroShield per m³ of Nitroflo if **ANY** the following conditions apply:

- Soils are alkaline (pH >7.0)
- The crop canopy does not provide full coverage of the soil
- Ambient temperature is expected to exceed 15°C within 24 hours of application

NitroShield is not required if:

- Liquid fertiliser is incorporated at or on the same day of application by injection, irrigation or cultivation
- Liquid fertiliser formulations that are targeted at foliar uptake by the use of ag-chem nozzles

Grade	NitroShield Rate	
	Reduced Rate	Full Rate
All Nitroflo grades (except Nitroflo 15S)	1.0 L/m ³	1.25L/m ³
Nitroflo 15S	600 ml/m ³	750 ml/m ³
Multiflo N-P (17-8-0, 17-6-0, 14-14-0)	600 ml/m ³	750 ml/m ³
Multiflo N-K (16-0-8, 16-0-4, 10-0-10)		
Multiflo N-P-K (15-3.5-7.5, 14-7-7, 10-5-9, 9-9-9)		

Sprayer Tank Ready Reckoner

Sprayer Tank Capacity	Amount of NitroShield at reduced rate of 1.0 L/m ³	Amount of NitroShield at full rate of 1.25 L/m ³
1800 L	1.80 L	2.25 L
2000 L	2.00 L	2.50 L
2500 L	2.50 L	3.13 L
3000 L	3.00 L	3.75 L
4000 L	4.00 L	5.00 L
5000 L	5.00 L	6.25 L

Notes

DIDIN can be tank mixed with NitroShield to give additional protection against nitrogen losses and further improve nitrogen use efficiency.

Polymex

Fertiliser Additives

Use

To protect plant available phosphate from becoming immobilised on high pH or calcareous soils.

Crops

Most agricultural crops including maize, oilseed rape and potatoes.

Pack Size

20, 1000 litres, or pre mixed with fertiliser.

Function of Polymex

Polymex is a complex biodegradable long-chain polymer. It protects phosphate from becoming immobilised in the soil and ensures that the water soluble phosphate fertiliser applied to responsive crops remains soluble for longer. As a result of the greater availability of phosphate young plants are able to establish a longer and more extensive root system more quickly. Trials have shown that not only are the root systems more advanced, but also the roots have a significantly higher level of root hairs, which assimilate higher levels of nutrients as a result.

Phosphate Fertilisers

After application to soils in the UK, phosphate fertilisers rapidly complex with cations such as calcium and magnesium to form insoluble compounds. This significantly reduces the availability of both the phosphate and calcium or magnesium to plants.

The speed at which this process takes place can be rapid, with most of the phosphate from an application to warm aerated soils becoming immobilised within a period of a few hours to a few days. Once immobilised, the phosphate is effectively unavailable to the plant until the compound is broken down by microbes or plant root exudates in the soil.

Function of Phosphate

Water soluble phosphate is vital for plants. It helps rapid establishment of crops and is an essential component of the energy cycle within the plant. It also helps produce healthy root systems that are more resistant to diseases.



Composition

Thermal polyaspartate

◆ Directions for Use

Use Polymex on high pH or calcareous soils when phosphate lockup is known to occur or is suspected. Best results are achieved when placed in mix with liquid phosphate fertiliser.

Apply 1-5 L/ha.

Liquid Fertiliser: Add half of the fertiliser to the spray tank, add the required amount of Polymex whilst agitating then add the remaining fertiliser. Maintain agitation whilst applying.

Granular Fertiliser: Apply before application of granular fertiliser using spray nozzles. Add half of the water to the spray tank, add the required amount of Polymex whilst agitating, and then add the remaining water. Total spray volume should be a minimum of 200 L/ha. Maintain agitation whilst spraying.

Crop	Timing	Rate L/ha	Comments
Maize	Placement ¹ at planting	3	Apply tank mixed with liquid fertiliser. The mix should be injected 50mm below and 50mm to one side of the seed to prevent seedling scorch
	Overall treatment at planting	5	Apply pre-planting in a minimum of 200 L/ha water
Oilseed Rape	Placement ¹ at drilling	1	Apply tank mixed with liquid fertiliser. The mix should be placed immediately below or surrounding the seed
	Band application at drilling	2-3	Apply tank mixed with liquid fertiliser. The rate will depend on the band width of the treatment. (if treated area is >25% of the total, apply 3L/ha. If 10-25% of the total apply 2L/ha. If <10% see placement above)
	Overall treatment at planting	5	Apply pre-drilling /pre-emergence in a minimum of 200 L/ha water
Potatoes	Placement ¹ at planting	3	Apply tank mixed with liquid fertiliser. The mix should be injected 50mm below and 50mm to one side of the seed potato to prevent seedling scorch
	Overall treatment at planting	5	Apply pre-planting in tank mix with solution fertiliser, suspension fertiliser or a minimum of 200 L/ha water

◆ Notes

¹ For best results with Polymex apply through a placement applicator in mix with liquid starter fertiliser (such as 7-20-0) at time of planting/drilling.

Polymex is physically compatible with the full range of OMEX clear solution fertilisers. To ensure complete mixing with OMEX suspension fertilisers Polymex should be mixed during production by OMEX.

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 agricultural 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)¹ and Tom Eichert (Bonn University)² 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	Rate % of total volume	Comments
Biostimulants & Quality Improvement Specialities	While crop is actively growing Early morning, evening, high humidity	0.1 0.1	Use with Kickstart Use with DP98. Use with Vitomex if the target is small or the canopy is dense
Foliar Nutrition - Specialities	Early morning, evening, high humidity	0.1	Use with 3X Solution Use with Bio 20 if the target is small
Foliar Nutrition	Early morning, evening, high humidity	0.1	Use with Folex B, Folex Cu, Folex Mg, Folex P, Folex PZ, Folex Zn and Folex Mn 17.5

Notes

¹ 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 <http://www.fertilizer.org>

² 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 agricultural and horticultural crops especially fruit, vegetables, protected salad crops and potatoes.

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 0.05L/ha)	Follow the statutory conditions of use of the PPP	Follow the statutory conditions of use of the PPP
All Edible Crops	All authorised PPPs (at half or less than half the authorised PPP rate).	0.1 (minimum 0.05L/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 0.05L/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
Beans: broad, dwarf, french , runner, edible podded, field	Up to and including first pod set
Broccoli / calabrese	Up to and including heads begin to form; width of growing tip up to 1cm ²
Brussels sprouts	Up to and including lateral buds begin to develop
Cabbage	Up to and including heads begin to form
Carrot, parsnip, turnip, swede	Up to and including 9 true leaves unfolded
Cauliflower	Up to and including cauliflower heads begin to form; width of growing tip up to 1cm ²
Cereals	Up to and including GS52 (1/4 inflorescence)
Collard, Kale	Main shoot has reached 30% of the expected height typical for the variety
Peas: combining, vining	Up to and including flat pod (non-edible pods only)
Garlic, bulb onions, shallot, salad onion	Up to and including first fruit set
Hops	Up to and including cone set
Leek	Up to and including 9 leaves clearly visible
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
Linseed	Up to and including 10% capsules formed
Oilseed rape	Up to and including 10% potential pods
Oriental cabbage	Varieties not forming heads: up to and including leaf rosette has reached 30% of the diameter typical for the variety
Oriental cabbages	Varieties forming heads: up to and including heads begin to form
Potato	Up to and including tuber initiation
Red beet, sugar beet	Up to and including six fully expanded leaves. Does not include beetroot grown for salad leaf use
Rocket	Up to and including 3rd true leaf unfolded
Spinach	Leaf rosette has reached 30% of the expected diameter typical for the variety
Sweetcorn, maize	Up to and including tip of tassel visible

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.**

Product Compatibility

Product	Biomex Duster	Biomex Starter	CalMax	Folex Caleba	Gard KLD	K50	Kelpak	Kickstart	Vitomex	Zynergy	3X Solution	Bio 20	Micromex	SuperMn	Folex B	Folex Cu	Folex K
Biomex Duster		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Biomex Starter	N		C	N	N	N	N	N	N	N	C	N	N	N	N	N	N
CalMax	N	C		C	C	X	C	C	C	C	X	C	C	C	X	C	C
Folex Caleba	N	N	C		C	X	C	C	C	C	X	C	C	C	X	C	C
Gard KLD	N	N	C	C		C	C	C	C	C	C	C	C	C	C	C	C
K50	N	C	X	X	C		C	C	C	C	C	C	X	X	X	X	X
Kelpak	N	C	C	C	C	C		C	C	C	C	C	C	C	C	X	C
Kickstart	N	C	C	C	C	C	C		C	C	C	C	C	C	C	C	C
Vitomex	N	C	C	C	C	C	C	C		C	C	C	C	C	C	C	C
Zynergy	N	N	C	C	C	C	C	C	C		C	C	C	C	C	C	C
3X Solution	N	C	X	X	C	C	C	C	C	C		C	C	X	X	C	C
Bio 20	N	C	C	C	C	C	C	C	C	C	C		C	X	X	C	C
Micromex	N	C	C	C	C	X	C	C	C	C	C	C		C	C	C	C
SuperMn	N	C	C	C	C	X	C	C	C	C	X	X	C		X	C	C
Folex B	N	C	X	X	C	X	C	C	C	C	X	X	C	X		C	C
Folex Cu	N	C	C	C	C	X	X	C	C	C	C	C	C	C	C		C
Folex K	N	C	C	C	C	X	C	C	C	C	C	C	C	C	C	C	
Folex Mg	N	C	C	C	C	X	C	C	C	C	X	X	C	C	C	C	C
Folex Mn	N	C	C	C	C	C	C	C	C	C	X	X	C	C	X	X	C
Folex MU 35	N	N	C	C	C	X	C	C	C	C	C	C	C	C	C	C	C
Folex N	N	C	C	C	C	X	C	C	C	C	C	C	C	C	C	C	C
Folex P	N	C	X	X	C	X	C	C	C	C	C	C	C	X	C	C	C
Folex PZ	N	C	X	X	C	X	C	C	C	C	C	C	C	X	C	C	C
Folex Zn	N	C	C	C	C	X	C	C	C	C	C	C	C	C	C	C	C
Folex Mn 17.5%	N	C	C	C	C	X	C	C	C	C	X	X	C	C	X	C	C
Oilseed Extra	N	N	N	N	C	C	C	C	C	C	N	N	N	N	N	N	C
Protein Plus, +S	N	N	N	N	C	C	C	C	C	C	N	N	C	N	N	N	C
Sulphomex	N	C	C	C	C	X	C	C	C	C	C	C	C	C	C	C	C
Gard S	N	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Greenside	N	N	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Kelpland	N	C	C	C	C	X	C	C	C	C	C	C	C	C	C	X	C
Kelpomex	N	C	C	C	C	X	C	C	C	C	C	C	C	C	C	X	C
Organomex Range	N	C	C	C	C	X	C	N	C	C	N	N	C	C	C	C	N
DIDIN	N	C	N	N	C	N	C	N	N	C	N	N	N	N	N	N	N
NitroShield	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Polymex	N	C	N	N	N	X	C	N	N	N	N	N	N	N	N	N	N
NA 13	N	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
SW 7	N	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Solution fertilisers	N	C	X	N	N	X	C	C	C	C	C	C	X	X	N	N	N

Key

C = OK to mix

N = Not mixed due to method/timing

X = Do not mix

Folex Mg	Folex Mn	Folex MU 35	Folex N	Folex P	Folex PZ	Folex Zn	Folex Mn 17.5%	Oilseed Extra	Protein Plus, +S	Sulphomex	Card S	Greenside	Kelpland	Kelpomex	Organomex Range	DIDIN	NitroShield	Polymex	NA 13	SW7	Solution fertilisers
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	N	C	N	N	C
C	C	C	C	X	X	C	C	N	N	C	C	C	C	C	C	N	N	N	C	C	X
C	C	X	C	X	X	X	C	N	N	C	C	C	C	C	C	N	N	N	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	C	C	N
X	C	X	X	X	X	X	X	C	C	X	C	C	X	X	X	N	N	X	C	C	X
C	C	C	C	X	X	C	C	C	C	C	C	C	C	C	N	C	N	C	C	C	C
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	N	C	C	C
C	C	C	C	C	C	C	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	N	N	N	C	C	C
X	X	C	C	C	C	C	X	N	N	C	C	C	C	C	N	N	N	N	C	C	C
X	X	C	C	C	C	C	X	N	N	C	C	C	C	C	N	N	N	N	C	C	C
C	C	C	C	C	C	C	C	N	C	C	C	C	C	C	C	N	N	N	C	C	X
C	C	C	C	X	X	C	C	N	N	C	C	C	C	C	C	N	N	N	C	C	X
C	X	C	C	C	C	C	X	N	N	C	C	C	C	C	C	N	N	N	C	C	N
C	C	X	C	C	C	C	C	N	N	C	C	C	X	X	C	N	N	N	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	N	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	N	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	N	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	N	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	N	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	N	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	N	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	N	C	C	N
C	C	C	C	X	X	C	C	N	N	C	C	C	C	C	N	N	N	N	C	C	C
C	C	C	C	X	N	C	C	N	N	C	C	C	C	C	C	N	N	N	C	C	C
C	C	C	N	N	N	C	C	N	N	C	C	C	C	C	C	N	C	C	C	C	N
N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	C	C	C	C	C	C
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	C	C	C	C
N	N	N	N	N	N	N	N	N	N	N	N	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	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N
X	X	N	N	N	N	X	X	N	N	C	N	C	C	C	N	C	C	C	N	N	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. Telephone 01553 760011, or email 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.

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

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
Standard Sizes	1 litre	12 x 1 litre	
	5 litres	4 x 5 litres	120 x 5 litres
	10 litres	-	52 x 10 litres
	1000 litres	-	Single IBC
Biomex Duster	1 kilo	24 x 1 kilo	
Kelpak	5 litres	4 x 5 litres	132 x 5 litres
	20 litres	-	32 x 20 litres
	1050 litres	-	Single IBC

Notes

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SPRING 2025

OMEX
Estuary Road
King's Lynn
Norfolk
PE30 2HH

Tel 01553 760011
Fax 01553 769774

Email foliars@omex.com
Web www.omex.co.uk