



Fortiflo Range

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.

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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.

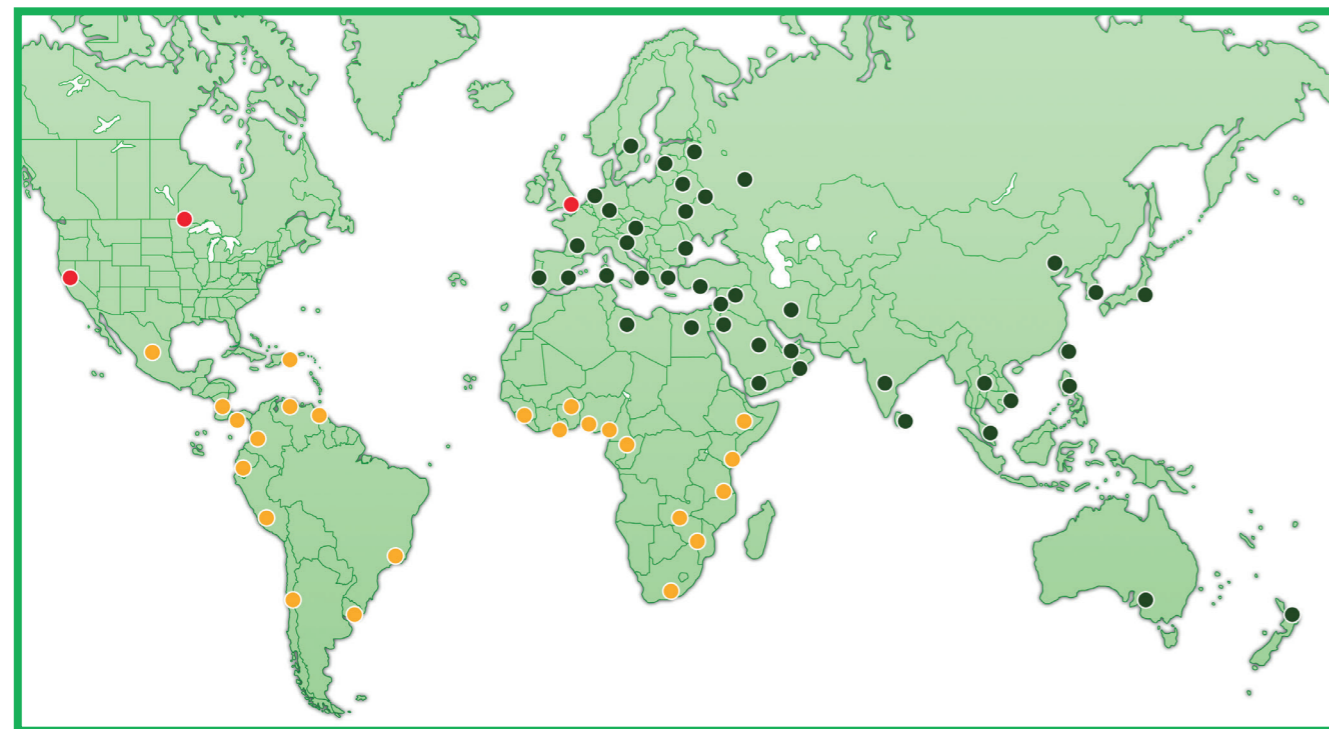
OMEX Agrifluids markets speciality fertilisers in over sixty countries around the world, working

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

Foliar nutrition is widely used as a standard practice in many crops throughout the world as a targeted and efficient form of crop nutrition as well as to increase the content of essential elements (e.g. zinc and selenium) in human and animal food.

OMEX Fortiflo range is scientifically formulated to boost nutrient uptake by:

- Use of surfactants to increase the droplet to leaf surface area; improving uptake spreading, penetration and rain fastness
- Decreasing the size of molecules within the formulation to improve the rate at which nutrients pass through the cuticle and stomata in the leaves
- Improving the humectancy of the formulation to increase uptake efficiency



OMEX Fortiflo products produce the best results when used at the right time and in the right place by:

- Applying during periods of growth and grain and fruit formation or in situations of decreased nutrient availability
- Spraying plants under favourable environmental conditions
- Applying products during the growing season to preserve nutrient status rather than waiting for symptoms of deficiency and the subsequent loss of yield and quality

Significance of Soil pH

- Different crops have varying tolerances to soil PH. The pH of the soil has a significant effect on the ability of crops to extract the essential elements for healthy growth.
- Soil and SAP analyses can identify nutrient deficiencies and in these situations, foliar nutrition can be used to overcome transient nutrient shortages.
- The chart 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.

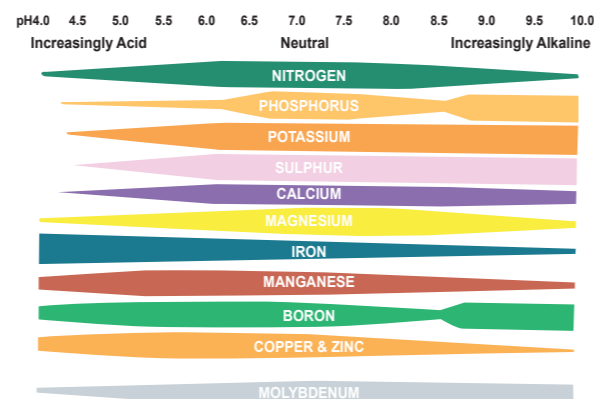


Figure 1-Relative availability of plant nutrients at various soil pHs.

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

SAP Analysis

- The SAP analytical report will show the level of:
- NO_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



SAP ANALYSIS active crop nutrition		Email: sales@omex.com Tel: 01526396014		OMEX	
Element	Result PPM	Critically Low	Low	Normal	High
Total Available N ($\text{NH}_4 + \text{NO}_3$)	106				
N in Nitrate (NO_3)	33				
N in Ammonium (NH_4)	73				
Phosphorus (P)	484				
Potassium (K)	7766				
Magnesium (Mg)	106				
Sulphur (S)	189				
Calcium (Ca)	1040				
Sodium (Na)	199				
Chloride (Cl)	1500				
Manganese (Mn)	11.47				
Boron (B)	0.71				
Copper (Cu)	1.07				
Iron (Fe)	1.99				
Zinc (Zn)	1.93				
Molybdenum (Mo)	0.22				
Aluminium (Al)	0.01				
Silicon (Si)	34				

Recommendation of OMEX Foliar product					
Client Name					
Farm Name					
Field					
Sample No.					
Order No.					
Sample Received					
Agronomist & FACTS#					
Crop	Spring Barley				
Variety					
Growth Stage					
Comment					

Growth Rate						
Poor	1	2	3	4	5	Good

Water Status						
Wilted	1	2	3	4	5	No Stress

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

Email sap@omex.com to order your SAP Packs, or telephone 01553 760011

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

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 54-55, 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 52 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

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 Kobra1 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

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

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

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, 600, 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 photosynthesates 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 54-55, and for physical compatibility with pesticides refer to the website www.omex.co.uk.

Kelpak®

Bio-stimulants & 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, 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 40 for details.

Do not tank mix with copper based fungicides. For further information on compatibility and tank mixing refer to the section on pages 54-55, 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, 600, 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.



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 54-55, 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 50 for details.

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%



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, 600, 1000 litres

Function of Zynergy®

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

Analysis	w/w	w/v
Copper (Cu)	2.0%	2.5%
Zinc (Zn)	3.5%	4.5%
Sulphur (SO 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 it under severe stress, or in adverse weather conditions.

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

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 50 for details.

For further information on compatibility and tank mixing refer to the section on pages 54-55, 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, 600, 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 54-55, 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 50 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 52 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	Contains Biostimulant	
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 54-55, 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 50 for details.

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, 600, 1000 litres

Function of Manganese

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



Analysis	w/w	w/v
Nitrogen (N)	2.25%	3.0%
Magnesium (MgO)	2.25%	3.0%
Sulphur (SO 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 54-55, and for physical compatibility with pesticides refer to the website www.omex.co.uk.

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.

Folex® N

Foliar Nutrition

◆ **Pack Size** - 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 54-55, and for physical compatibility with pesticides refer to the website www.omex.co.uk.

◆ **Pack Size** - 10, 600, 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 54-55, 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 50 for details.

◆ **Pack Size** - 10, 600, 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 54-53, 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 50 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 54-55, 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 50 for details.

Sulphomex[®]

Foliar Nutrition - Ammonium Thiosulphate

◆ Pack Size - 10, 1000 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 54-55, and for physical compatibility with pesticides refer to the website www.omex.co.uk.

Folex® Mg 9

Foliar Nutrition - Magnesium Sulphate



◆ **Pack Size** - 600, 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 54- 55, 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 50 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 52 for details.

Folex® Mg 13

Foliar Nutrition - Magnesium Nitrate

◆ **Pack Size** - 600, 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 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 54-55 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 50 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 52 for details.

Premium K

Foliar Nutrition

Use

A soluble solution of plant available Potash for use at times of peak demand when soil uptake of Potash maybe restricted.

Crops

Potatoes, Brassicas, Cereals, Grassland, Other Crops.

Pack Size

10L, 1000L

Function of Premium K

Potash performs a key role in water uptake and movement of water between cells within a plant. Potash also plays a major role in determining dry matter content in harvested crops and can be a major factor in a crop's marketability.

Analysis	w/w	w/v
Potassium (K ₂ O)	29%	39%

Directions for Use

Use Premium K as part of a nutrient management plan on potatoes, or when deficiency is diagnosed or suspected. Apply 2 - 5L/ha in a minimum of 200L/ha water.

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

Crop	Timing	Rate L/ha	Comments
Brassicas	From 4 true leaves	2 - 5	
Cereals	GS39 - 63	5	To boost grain size if availability from soil is impaired
Potatoes	Tuber initiation to bulking	2 - 5	Apply when deficiency is suspected, or when SAP analysis shows low nutrient status. Repeat applications 10-14 days apart
Grassland	Spring - Autumn	5	Apply when deficiency is suspected or as part of your nutrient management plan, or when SAP analysis shows low nutrient status
Other crops	As required	2 - 5	Apply when deficiency is suspected, or when SAP analysis shows low nutrient status

Notes

Premium K can also be used as a foliar fertiliser on a wide range of crops to improve crop colour, increase vigour and growth. 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, tank mixing and for physical compatibility with pesticides refer to the website www.omex.co.uk.

Folex® Phosflo

Foliar Nutrition

Use

To provide a balanced combination of macro and micro nutrition for foliar uptake as part of a nutrient management programme.

Crops

Cereals, Maize, Legumes.

Pack Size

10, 1000 litres.

Function of Folex® Phosflo

Folex Phosflo has been formulated to supply a range of macro and micro nutrients that are essential for plant development and maximising crop yield.

Analysis		w/w	w/v
Phosphate (P ₂ O ₅)	Root Development	29.5%	44.0%
Potassium (K ₂ O)	Water mobility and uptake	5.0%	7.5%
Magnesium (MgO)	Enhance photosynthesis	4.5%	6.5%
Zinc (Zn)	Enzyme function and ion transport	3.0%	4.5%

Directions for Use

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

Apply 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 Phosflo and add to the tank whilst maintaining constant agitation. Add the remaining water to the correct dilution and spray.

Crop	Timing	Rate L/ha	Comments
Cereals	Tillering onwards	5	Repeat 14 days later if SAP analysis or visual inspection shows a requirement
Legumes	2-6 leaves	5	Repeat 14 days later if SAP analysis or visual inspection shows a requirement
Maize	4-8 leaves	5	Do not spray in hot dry conditions or when the crop is under stress. Repeat 14 days later if SAP analysis or visual inspection shows a requirement

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 Phosflo 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.

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 52 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, 600, 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	From 2-4 true leaves	1	Repeat at 1-4 week intervals if necessary.
Lettuce and Leafy Salads			
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 54-55, 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, 600, 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 Ammonium 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 Winter		20-25 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 Medium Heavy/Peat	8.0 6.0 5.0
Granular Ammonium Nitrate			

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 adviser 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

Didincan 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.

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.



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	0.1	Use with Kickstart.
	Early morning, evening, high humidity	0.1	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.

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).

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

Key	
C	OK to mix
N	Not mixed due to method/timing
X	Do not mix

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
Zynergy	N	N	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	X	X	C	C
Bio 20	N	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
SuperMn	N	C	C	C	C	X	C	C	C	C	X	X			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
Folex K	N	C	C	C	C	X	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	X	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

	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	Gard 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	N	N	N	C	N	C	N	N	C	C
C	C	C	C	X	X	C	C	C	N	N	C	C	C	C	C	C	N	N	N	C	C	C	X
C	C	X	C	X	X	X	C	C	N	N	C	C	C	C	C	C	N	N	N	C	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	C	C	C	N
X	C	X	X	X	X	X	X	X	C	C	X	C	C	X	X	X	N	N	X	C	C	C	X
C	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	C	C	C	N	N	N	C	C	C	C
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	C	C	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
X	X	C	C	C	C	C	X	N	N	C	C	C	C	C	C	N	N	N	N	C	C	C	C
X	X	C	C	C	C	C	X	N	N	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	C	C	N	N	N	C	C	C	X
C	C	C	C	X	X	C	C	C	N	N	C	C	C	C	C	C	N	N	N	C	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	C	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	C	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	C	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	C	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	C	C	C	N
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	N	C	C	C	N
X	X	N	N	N	N	X	X	N	N	C	N	C	C	C	C	N	C	C	C	N	N	N	

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