solufeed

Top Quality Speciality Fertilizers

Product Guide

solufeed.com

SOLUFEED

THE QUALITY FERTILIZER SPECIALISTS

First registered in 1946, Solufeed was the brand name of a single ICI fertiliser developed for the infant hydroponics industry. Today, the Solufeed brand embraces hundreds of products sold in over 40 countries.

These products have a well-earned reputation for quality, reliability and value for money and are the “first choice” products for the progressive grower.

In 1998 Solufeed became an independent company and in 2011 was awarded the Queens Award for Enterprise for its outstanding achievement in International Trade.

The company specializes in the production and supply of specialty fertilisers of the highest quality for the horticulture, agriculture and amenity sectors. These include; watersoluble fertilizers, foliar feeds, organic and chelated micronutrients supported by an enviable technical service and complimented by the commercial and logistical departments.

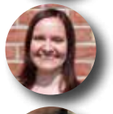
All Solufeed products are manufactured with constituents of the highest quality and supplied under the standards of ISO9001:2008.

KEY SOLUFEED PERSONNEL

Dick Holden
Managing Director

Lorraine Holden
Financial Director

Emma Keen
International Sales Administration



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Quality, Reliability and Confidence

How we ensure and maintain our success

- Use the very best raw materials from reliable European suppliers.
- Check every raw material for quality ourselves.
- Strict management of formulation data (recipes) so that there are no mistakes.
- Rigorous manufacturing procedures to ensure accuracy.
- Batch manufacture with detailed record keeping of each step giving full traceability.
- Sophisticated blending and packaging processes to ensure quality and reliability of products.
- Excellent storage and onward distribution.
- All products are supported by a team of technical experts ensuring directions for use etc are up to date.

bsi. ISO 9001 Quality Management

SOIL ASSOCIATION APPROVED

QUALITY RAW MATERIALS

MANUFACTURE

PRODUCT

TRANSPORT

PRODUCT IN USE

CONSUMER

Water Soluble NPK Fertilizers

With magnesium (Mg) and trace elements (TE)

A broad range of top-quality, fully and rapidly soluble fertilizers for a wide range of crops and uses.

Uses

To provide fertilizer dissolved in the irrigation water to any overhead or drip irrigated crop.

Benefits

- Wide range of formulations to suit many cropping situations.
- Manufactured using high grade raw materials.
- Contain chelated micronutrients to ensure effectiveness and stability.
- Rapidly and completely soluble even in cold water.
- Contains blue indicator dye.

Typical analysis: A wide range of analysis but the choice is essentially:

High N (e.g. 28:7:14)

To encourage healthy vegetative (leafy) growth and good colour. Use after plants are established up until flowering time (then substitute with a high K formulation). For leafy vegetables (eg lettuces) use continuously.

High P (e.g. 10:52:10)

To encourage vigorous root growth and good plant establishment. Use early in the season when plants are young.

High K (e.g. 14:7:28)

To promote flowering and subsequent fruit production. Improves flavour and increases sturdiness of plants. Use from the onset of flowering and continue use up to harvest time.

Balanced (e.g. 18:18:18)

For general use to maintain plant nutrition levels and promote healthy growth. Can be used throughout the season.

Premium levels of Mg and TE for container grown crops or, regular levels for soil grown crops.

Appearance: Blended crystalline powder which dissolves to exhibit a blue indicator dye.

Solubility in water: Varies but typically in excess of 200 g/l (at 20°C).

Heavy metal content: Varies but always below 10 ppm.

Application rates: Normally 1 gram of Solufeed soluble NPK fertilizer per litre of irrigation water. May vary according to the sensitivity and requirements of the crop and the growing system, typically in the range 0.5 – 2 grams per litre (see below for more information).

Directions: The normal method of use is to make up a 10% (1kg Solufeed NPK fertilizer dissolved in 10 litres of water) stock-tank solution, which is then further diluted with a dosing pump at the rate of 1:100 (or adjust as required) into the irrigation water.

Packaging: Normal packaging - 20kg - see packaging guide options on pages 49-52.

EC Fertilizer.

EXAMPLE FORMULATIONS

$N:P_2O_5:K_2O+MgO$	$N:P_2O_5:K_2O+MgO$	$N:P_2O_5:K_2O+MgO$	$N:P_2O_5:K_2O+MgO$	$N:P_2O_5:K_2O+MgO$	$N:P_2O_5:K_2O+MgO$
0:15:40+3	10:10:30+5	12:25:25+1	15:0:30+1	18:9:26+1	22:11:13+2.5
0:17:28+11	10:10:40	12:26:26+1	15:4:37+1.5	18:6:30+1	23:5:11+2
0:33:29+3	10:10:40+2	12:36:12+2.5	15:5:25+2	18:10:18+3	23:6:12+3
0:33:30	10:10:44	12:40:12+1	15:5:30+1	18:18:18+3	23:10:10+2.5
2:9:23+5	10:12:28+3	12:52:5+1	15:7:30+3	19:6:20+3	23:23:0+1
3:38:32	10:15:20+3	12:6:36+2.5	15:9:28+1	19:8:16+4	24:8:12+1
4:18:33+4	10:20:30+2	13:0:39+3	15:10:15+3	19:19:19	24:10:10+1
5:5:45+1	10:40:10+2	13:0:42+1	15:15:15+1	19:19:19+2	24:10:10+5
5:16:30+5	10:52:10+1	13:0:43+1	15:15:30+1	20:0:20+1	24:12:12+1
5:16:36+1	10:55:10	13:0:45+1	15:30:15+1	24:0:24+3	25:6:12+1
6:32:32+1	11:0:27+6	13:2:44	15:30:20+1	20:5:5+1	25:15:20
6:40:20+1	11:11:33	13:4:42+1	16:4:32+1.5	20:5:10+2	26:0:26+1
7:12:34+4	11:11:40	13:5:30+3	16:5:32+3	20:5:10+5	27:9:18
7:12:35+5	11:32:22+1	13:5:35+1	16:5:5+7	20:6:6+2	27:15:12
8:12:25+4	11:44:11+1	13:6:39+0.5	16:06:24	20:8:14+2	28:0:0+6
8:15:26+5	12:0:40+4	13:8:21+2	16:7:32+3	20:10:10+1	28:7:14+3
8:15:30+5	12:3:43+2	13:8:34+2	16:8:24	20:10:20+2	28:7:7+1
8:15:36+1	12:4:24+2	13:11:23+2	16:8:32+2	20:10:25+3	28:10:10+3
8:16:24+2	12:4:40+2.5	13:11:24+4	16:12:16	20:13:20+1	28:10:30+3
8:16:30+1	12:6:37+1	13:13:26+5	17:0:36+2	20:10:30	28:14:14+1
8:16:40+2	12:6:44+ 0.5	13:27:27	17:0:43+3	20:20:20	29:7:14+1
8:17:27+4	12:8:24+2	13:40:13	17:10:27+1	20:20:20+1	30:5:30
9:7:37+4	12:8:30	13:40:13+2	17:11:25+2	20:20:20+2	30:5:5+1
9:35:9+7.5	20:9:20	14:5:28+1	17:17:17+1	20:30:20+2	30:10:10+1
10:0:40+2	12:10:11+4	14:7:28+3	17:32:21	21:21:21	30:15:15+1
10:5:40+1	12:12:18+3	14:10:30+2	18:0:36+1	22:4:22+1	33:0:11+3
10:6:39+2.5	12:12:36+1	14:11:25+2	18:09:26	22:5:21+2	36:0:12+1
10:8:30+3	12:14:24+3	14:16:18+1	18:6:23+6	22:7:22	

SOLUBLE

20:20:20 + TE

Example of a 'Balanced blend'

A 1:1:1 ratio balanced blend for a wide variety of uses.

Uses

A "general purpose" blend suitable for a wide range of crops. A product that is likely to work well almost wherever it is used: gardens, fruit, vegetables, tree crops etc. It is often used as a starting fertilizer (up to flowering) in many fruit crops (before changing to a high K feed for the fruiting phase).

Benefits

Made with micro-prilled urea to give an even blend without physical separation of components in the bag.

Contains a food-grade water-soluble blue indicator dye to show presence of fertilizer in the irrigation water.

Rapidly and completely water soluble for ease of use.

Made with fully chelated and soluble micro-nutrients to form stable solutions and prevent deficiency diseases

There are many variations on this analysis including inclusion of up to 1% MgO

Analysis	% w/w
Total Nitrogen	19.85
NO_3 N	5.8
NH_4 N	3.9
Ureic N	10.1
P_2O_5	19.9
P	8.65
K_2O	19.9
K	16.44
MgO	1.0
Mg	0.60
B	0.020
Total Cu	0.050
Cu EDTA	0.050
Total Fe	0.100
Fe EDTA	0.100
Total Mn	0.050
Mn EDTA	0.050
Mo	0.001
Total Zn	0.050
Zn EDTA	0.050
EC	0.929

Appearance: Blue coloured blended crystalline powder.

Application rate: Normally 1 gram per litre (range 0.5 – 2.0 grams per litre depending on crop and circumstance).

Packaging: 10kg or 20kg bags. See packaging options on pages 49-52.

EC Fertilizer

16:8:32 + 1 MgO + TE

Example of a 'High K' blend

A 2:1:4 ratio "High K" blend.

Uses

"High K" is often used to improve the quality and yield of fruit and flower crops including soft fruit, top fruit and ornamental crops.

Benefits

Promotes sweet, firm fruit without excess vegetative growth.

Contains a food-grade water-soluble blue indicator dye to show presence of fertilizer in the irrigation water.

Rapidly and completely water soluble for ease of use.

Made with fully chelated and soluble micro-nutrients to form stable solutions and prevent deficiency diseases.

Analysis	% w/w
Total N	16.00
NO_3 N	8.6
NH_4 N	2.3
Ureic N	5.1
P_2O_5	8.1
P	3.50
K_2O	32.0
K	26.48
MgO	1.0
Mg	0.60
SO_3	6.100
S	2.44
B	0.010
Total Cu	0.002
Cu EDTA	0.002
Total Fe	0.020
Fe EDTA	0.020
Total Mn	0.010
Mn EDTA	0.010
Mo	0.0012
Total Zn	0.002
Zn EDTA	0.002

Appearance: Blue coloured blended crystalline powder.

Application rate: Normally 1 gram per litre (range 0.5 – 2.0 grams per litre depending on crop and circumstance).

Packaging: 10kg or 20kg bags. See packaging options on pages 49-52.

30:10:10 + 1 MgO + TE

Example of a 'High N' blend

A 3:1:1 ratio balanced blend to promote vegetative growth.

Uses

A "Hign N" blend suitable for a wide range of crops. Use for crops with a high nitrogen demand to promote vigorous, leafy, green growth. Often used in the early stages of growth before fruiting.

Benefits

A balance of all three nitrogen types to give fast uptake and lasting effect with the minimum of leaching.

Contains a food-grade water-soluble blue indicator dye to show presence of fertilizer in the irrigation water.

Rapidly and completely water soluble for ease of use.

Made with fully chelated and soluble micro-nutrients to form stable solutions and prevent deficiency diseases

Analysis	% w/w
Total Nitrogen	29.92
NO_3 N	2.9
NH_4 N	3.4
Ureic N	23.6
P_2O_5	10.0
P	4.35
K_2O	10.0
K	8.25
MgO	1.0
Mg	0.62
SO_3	5.960
S	2.38
B	0.010
Total Cu	0.002
Cu EDTA	0.002
Total Fe	0.020
Fe EDTA	0.020
Total Mn	0.010
Mn EDTA	0.010
Mo	0.0012
Total Zn	0.002
Zn EDTA	0.002

Appearance: Blue coloured blended crystalline powder.

Application rate: Normally 1 gram per litre (range 0.5 – 2.0 grams per litre depending on crop and circumstance).

Packaging: 10kg or 20kg bags. See packaging options on pages 49-52.

EC Fertilizer

Blueberry Special
12:10:11+4

Crop specific fertilizer for hard water.

Uses

To provide a complete soluble NPK feed for container or soil grown Blueberries where the irrigation water contains more than 150 ppm bicarbonates.

Benefits

Solufeed Blueberry Special contains a balanced range of macro and micro nutrients to maximise the marketable yield of Blueberries. The feed contains nitrogen of the correct types for the Blueberry plant. Micronutrients are chelated to ensure that they are fully available to the crop. Blueberries like acidic growing conditions. The product dissolves rapidly in water to make an acidic solution which reduces irrigation water pH.

Analysis	% w/w
Total Nitrogen (N)	12.0
Of which	
NH_4-N	10.7
Ureic-N	1.4
P_2O_5 (P)	10.0 (4.4)
K_2O (K)	10.8 (9.0)
MgO (Mg)	4.5 (2.7)
B soluble in water	0.015
Cu chelated by EDTA	0.017
Fe chelated by EDTA	0.060
Mn chelated by EDTA	0.034
Mo soluble in water	0.001
Zn chelated by EDTA	0.017

Appearance: Off white blend of crystalline powders.

Application rates: Normally 1g/litre depending on desired EC.

Packaging: Normal packaging - 20 kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Pistachio Special
25:10:14+2

Soluble powder fertilizer suitable for drip irrigation of pistachio and other crops.

Uses

Dissolve in the irrigation water supplied to pistachio trees (fertigation).

Benefits

Provides balanced crop nutrition resulting in higher yields of pistachio nuts and improved crop quality.

Fast dissolving and slightly acidic formulation reduces soil pH and improves availability of nutrients.

Analysis	% w/w
Total Nitrogen	24.9
Of which	
NO_3-N	2.6
NH_4-N	1.7
Ureic-N	20.6
P_2O_5 (P) soluble in water	10.0 (4.4)
K_2O (K)	14.0 (11.5)
MgO (Mg)	2.0 (1.3)
SO_3 (S)	8.4 (3.3)
B soluble in water	0.01
Cu EDTA	0.002
Total Fe	0.18
Of which EDTA	0.06
DTPA	0.06
EDDHA	0.06
Mn EDTA	0.06
Mo soluble in water	0.005
Zn EDTA	0.075

Appearance: Blue blended crystalline powder.

Application rates: 1 gram per litre of irrigation water.

Directions: Apply through irrigation water with every watering.

Packaging: Normal packaging - 20 kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Soft Fruit Blend
8:12:35+4MgO

Fertilizer for Soft Fruit growing in peat compost containing robust chelated trace element package. Also suitable for grapes.

Uses

A fully water-soluble fertilizer formulated for strawberries growing in peat based inert media; typically glasshouse strawberries growing in peat based grow-bags or troughs.

Benefits

Solufeed Soft Fruit Blend is a well established formulation containing all-nitrate nitrogen for healthy growth. The sturdy level of P_2O_5 ensures good establishment and flowering and the K_2O ensures firm, sweet fruit.

The substantial level of trace elements are fully chelated (with the iron chelated by the more available DTPA) to ensure excellent availability of all trace elements even in poor quality irrigation water. Dark blue colour indicates presence in water.

Solufeed Soft Fruit Blend can be used satisfactorily throughout the life of the crop although the analysis is optimised for the fruiting period (flowers visible to harvest). Alternatively, a “starter feed” such as “Solufeed Starter” can be used for the period when the plant is making vegetative growth from planting up until flowers are visible, before switching to Solufeed Soft Fruit Blend for the fruiting phase of the crop.

Analysis	% w/w
Total nitrogen (N)	7.6
Of which	
NO_3-N	7.6
P_2O_5 (P)	12.0 (5)
K_2O (K)	35.2 (29)
MgO (Mg)	4.6 (2.8)
Boron (B) soluble in water	0.02
Copper (Cu) (EDTA)	0.016
Iron (Fe) (DTPA)	0.160
Manganese (Mn) (EDTA)	0.086
Molybdenum (Mo) soluble in water	0.001
Zinc (Zn) (EDTA)	0.07

Appearance: Blue coloured blended crystalline powder.

Packaging: Normal packaging - 20kg bag - see packaging guide options on pages 49-52.

EC Fertilizer.

P+P Flower Special
13:7:27+3

Crop specific water soluble fertilizer for Primrose and Pansy crops.

Uses

A fertigation feed for primrose and pansy crops.

Benefits

- Balanced feed for these specific crops.
- Nutrients chelated by EDTA & DTPA to ensure efficient nutrition with no deficiencies.
- Special rapid solubility formulation.
- Blue indicator dye to identify mixed solution.

Analysis	% w/w
Total Nitrogen	12.80
Of which	
Nitrate Nitrogen (NO_3-N)	7.10
Ammoniacal Nitrogen (NH_4-N)	3.10
Ureic Nitrogen (Ur-N)	2.60
Phosphorus Pentoxide (P_2O_5) [P]	7.00 [3.0]
Potassium Oxide (K_2O) [K]	27.00 [22.2]
Magnesium Oxide (MgO) [Mg]	3.00 [1.8]
Boron (B) soluble in water	0.250
Copper (Cu) chelated by EDTA	0.010
Iron (Fe) chelated by DTPA	0.180
Manganese (Mn) chelated by EDTA	0.060
Molybdenum (Mo) soluble in water	0.005
Zinc (Zn) chelated by EDTA	0.080

Appearance: Blended crystalline powder

Solubility in water: Fully soluble in water

Application rates: 0.5 – 2.0 grams per litre.

Normally 1 gram per litre if no controlled release fertilizer (CRF) e.g. Solucote is used in the potting compost and 0.5 grams per litre if a reduced rate of CRF is used.

Packaging: Normal packaging - 20 kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Solufeed “F”
Original hydroponic N:P:K fertilizer

Special fertilizer for hydroponic production.

Uses

Balanced fertilizer for crop production in “NFT” and other hydroponic systems.

Benefits

- Reliable performance through development over more than 50 years of commercial use.
- Suitable for a very wide range of hydroponic crops including tomatoes, cucumbers, lettuce.
- Tolerant of a wide range of water qualities and types of hydroponic system.
- Produces crops with big yields, good taste and long shelf life.
- Economical and easy to use.

Analysis	% w/w
Nitrogen (N)	9.04
Phosphorus (P_2O_5)	6.7
Potassium (K_2O)	36.8
Magnesium (MgO)	5.1
Boron (B)	0.020
Copper (Cu)*	0.016
Iron (Fe)*	0.088
Manganese (Mn)*	0.054
Molybdenum (Mo)	0.0012
Zinc (Zn)*	0.012

* Chelated by EDTA.

Appearance: Blended crystalline powder.

Directions for use: Use – if necessary, depending on input water analysis - in conjunction with mineral acids e.g. nitric acid, to correct irrigation water pH, and calcium nitrate to provide required levels of calcium (Ca) in the irrigation water. The “3-tank” system. Hydroponic growing is complex and requires great attention to detail. Further advice is available from Solufeed Ltd.

Application rates: Typically 14kg per 100 litres of stock tank solution further diluted 1:100 or as required to provide the correct conductivity reading for the particular stage of the crop under cultivation.

Packaging: Normal packaging - 20 kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Superior Fertilizers
Vigil 16:10:18+2 and Fleury 14:10:28+2

A new standard in soluble NPK fertilizers - only from Solufeed.

Uses

Highly effective soluble fertilizers especially recommended for problematic hard and soft waters where the performance of ordinary products may be adversely affected.

Benefits

- Mostly nitrate nitrogen for immediate availability.
- Zero ureic nitrogen - suitable for all crops and growing media.
- Acidic formulation:
  Will reduce water pH for growers with hard water.
  Will mix with calcium nitrate for growers with soft water.
- Rapidly and completely soluble.
- Fully chelated balanced mix of trace elements.
- Suitable for a wide range of crops from pot plants to soft fruit.
- Made by Solufeed using unique acidic raw materials.
- Low hazard in use, handling and storage.

For Hard Water areas
Hard water usually contains high levels of calcium and/or magnesium ions together with bicarbonate (HCO3) ions; the pH is usually high.

Using acidic Solufeed Superior fertilizer will neutralize some of the bicarbonates in the water and will reduce pH thereby improving conditions for plant growth.

For Soft Water areas
Soft water contains very low levels of calcium or magnesium ions. It may be necessary to add calcium (usually as calcium nitrate) to provide plants with the optimum level in the feed. Calcium nitrate will mix in concentrated solution with Solufeed Superior fertilizers in equal proportions.

VIGIL
Analysis: 16:10:18+2MgO+TE
Example uses: Starter fertilizer. A balanced blend suitable for many situations.
Example crops: Pot plants up to bud formation (1:100). Rooted cuttings (1:200). Starter feed for fruit & veg (1:100).

FLEURY
Analysis: 14:10:28+2MgO+TE
Example uses: Finishing fertilizer, balanced to encourage flowers and fruit rather than foliage.

Example crops: Pot plants from bud formation (1:100). Finishing feed for fruit & veg (1:100).

Packaging: Normal packaging - 20 kg - see packaging guide options on pages 49-52.

EC Fertilizer.

SOLUBLE

BESPOKE BLENDS

Standard off-the-shelf products are supplemented by our rapid tailor-made fertilizer service - as unique and special as your crop.

Use our technical expertise to design, produce and deliver a fertilizer to suit your exact needs. The intended crop, detailed interpretation of water analysis data and other local conditions are all taken into account to ensure optimum fertilizer performance and cost effectiveness.

Benefits

- Precise NPK ratios to suit your crop and conditions.
- Fertilizers with added calcium and magnesium.
- Specific fully chelated micronutrient levels.
- Acidifying fertilizers for hard/alkaline water.
- Less waste.
- Modest minimum order quantities.

For more information about bespoke fertilizer blends please contact your Solufeed distributor.

Ca 9.5 EDTA
Chelated calcium fertilizer

Highly effective and compatible microgranular formulation of calcium (Ca) EDTA.

Uses

1. To prevent and correct calcium deficiency in many agricultural, horticultural and ornamental crops. Recommended for soil and foliar application (see important note).
2. As an effective calcium source in soils or artificial growing media where no effect on pH is desirable.
3. As an effective calcium source in hydroponics and liquid feed systems to help overcome temporary, physiologically induced calcium deficiency.

Benefits

Solufeed Ca 9.5 EDTA is a highly stable, top quality, chelated calcium fertilizer for safe, efficient and convenient prevention and correction of calcium deficiency. Supplied as free-flowing, dustless and soluble microgranules.

Compatible with many crop protection materials enabling economic tank mixing for simultaneous application where appropriate. Also compatible with soluble phosphates, thereby remaining effective in hydroponics and liquid feed systems.

Analysis w/w
A spray agglomerated microgranule formulation of calcium ethylenediaminetetraacetate (Ca EDTA) containing:

Water soluble Ca:	9.5%
Ca chelated by EDTA: min	9.0%

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: White microgranule.
Solubility: ~350 g/l (in water @ 20°C).

Important note: Fruit Crops
Do not apply Solufeed Ca 9 EDTA to fruit crops as a foliar spray. Consult Solufeed for more information.

Application rates, general: Solufeed Ca 9.5 EDTA may be applied in one application of 2.0 kilograms per hectare but optimum results can be expected if repeat applications are used. In general, foliar applications should be started early in the season as soon as there is sufficient leaf area to absorb the spray.

Small Scale Use: Knapsack sprayer - Prepare a 0.05 - 0.1% (0.5 - 1.0 gram per litre) solution and apply so as to coat the leaves and stems with a thin film of moisture with little or no run-off.

Hydroponics/fertigation: 1ppm (25.00 µmol/L) calcium can be achieved by adding 10.5 grams of Solufeed Ca 9.5 EDTA per 1000L of solution.

Compatibility: Solufeed Ca 9.5 EDTA is compatible with all other Solufeed chelates and many crop care chemicals. They are also fully compatible with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 1kg, 25kg bags - see packaging guide options on pages 49-52.

EC Fertilizer.

Co 14 EDTA
Chelated cobalt fertilizer

Microgranular formulation containing 14 % cobalt (Co).

Uses

To prevent and correct cobalt deficiency in pasture, fodder and other appropriate crops thereby improving the cobalt nutrition in grazing livestock. Recommended for foliar application.

Benefits

High quality free-flowing, dustless and readily soluble microgranular formulation.

Low hazard compared to inorganic cobalt sources.

Stable in moderately alkaline conditions.

Compatible with soluble phosphates.

When Solufeed Co 14 EDTA is applied to pasture, livestock take in cobalt by the natural process of grazing, there are no 'taste preference' issues as with salt licks. Unlike injections and drenches, no livestock management is needed.

Analysis	**% w/w**
Water soluble Co:	14 % (typical)
Co chelated by EDTA:	13.3 % minimum

Appearance: Pink spray agglomerated microgranule.

Solubility in water: Fully soluble in water.

Foliar Application: Apply at 1.0 kg/ha in 200 – 600 litres of water.

Packaging: Normal packaging - 25kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Coir Tec
Blended chelated trace element fertilizer

A balanced blend of the 6 essential trace elements for use when growing protected soft fruit in a coir based growing medium.

Uses

Use as a complete source of trace elements where the growing medium is coir or coir based.

Benefits

- Provides the 6 essential micronutrients in a single product; easy to measure and use.
- Balanced blend, tailored to the growing medium, to ensure the plant receives the feed level it requires.
- Nutrients chelated by EDTA & DTPA to ensure efficient nutrition with no deficiencies.
- Instantly and completely soluble blended micro-granule formulation.

Analysis	**(% w/w)**
Boron (B) soluble in water	0.28
Copper (Cu) chelated by EDTA	0.17
Iron (Fe) chelated by DTPA	4.90
Manganese (Mn) chelated by EDTA	2.09
Molybdenum (Mo) soluble in water	0.13
Zinc (Zn) chelated by EDTA	1.54

Appearance: Yellow/Brown blended microgranular powder.

Solubility: Fully soluble in water.

Application rates: 650 grams per 100 litres of stock tank solution.

Boron (B)	0.18
Copper (Cu) EDTA	0.11
Iron (Fe) DTPA	3.18
Manganese (Mn) EDTA	1.36
Molybdenum (Mo)	0.08
Zinc (Zn) EDTA	1.00

Packaging: Normal packaging - 20kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Comanche
Copper + manganese chelate fertilizer

Highly stable and effective microgranular formulation of copper (Cu) and manganese (Mn) EDTA.

Uses

To prevent and correct combined copper and manganese deficiency primarily in cereal crops. Suitable for most agricultural, horticultural and ornamental crops. Recommended for foliar application.

Benefits

Solufeed Comanche is a highly stable top quality chelated copper/manganese fertilizer for safe, efficient and convenient prevention and correction of combined copper and manganese deficiency.

Supplied as free-flowing, dustless and highly soluble microgranules.

Compatible with many crop care products enabling economic tank mixing for simultaneous application.

Analysis:
A spray agglomerated microgranule formulation of copper ethylenediamine tetraacetate (Cu EDTA) and manganese ethylenediamine tetraacetate (Mn EDTA) containing w/w:

Water soluble Cu:	2.40%
Cu chelated by EDTA:	min 2.28%
Water soluble Mn:	10.0%
Mn chelated by EDTA:	min 9.50%

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: Blue microgranule.

Foliar Application: Solufeed Comanche should be dissolved in a convenient volume of water to suit the spraying machine being used and the target crop leaf area.

Application rates, specific
Crop: Winter Cereals
Rate (kg/ha): 1.5
Timing: Apply when spring re-growth commences. For severe deficiency, an additional full rate application soon after tillering.
Crop: Spring Cereals
Rate (kg/ha): 1.5
Timing: Apply as soon as there is sufficient leaf area to absorb the spray.

Packaging: Normal packaging - 1kg and 20kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Cu 9.1 EDTA-L
Chelated liquid copper fertilizer

Highly effective and compatible liquid formulation of copper (Cu) EDTA.

Uses

1. To prevent and correct copper deficiency in most agricultural, horticultural and ornamental crops. Recommended for soil and foliar application.
2. As a copper micronutrient source for hydroponics, liquid feed solutions and inert growing media.

Benefits

Solufeed Cu 9.1 EDTA-L is a highly stable, top quality, chelated copper fertilizer for safe, efficient and convenient prevention and correction of copper deficiency. Supplied as an easy to use liquid formulation.

Compatible with many crop protection materials enabling economic tank mixing. Also compatible with soluble phosphates, thereby remaining effective in hydroponics and liquid feed systems.

Analysis: A liquid formulation of copper ethylenediaminetetraacetate (Cu EDTA) containing:

Water soluble Cu: 9.1 % w/v (6.74 % w/w)

Cu chelated by EDTA: min 8.6 % w/v (6.37 %w/w)

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: Blue liquid.

Foliar Application: Solufeed Cu 9.1 EDTA-L should be added to a convenient volume of water to suit the density of crop being treated. Use higher water volumes on dense crops.

NB Fruit Crops: Do not exceed a solution of 0.1% (1g/l) for any one or combination of Solufeed chelates.

Crop: Winter Cereals
Rates (litres/ha): 0.2 – 0.4
Timing: Apply when Spring re-growth commences. For severe deficiency, an additional full rate application soon after tillering (ZCK 23).

Crop: Spring Cereals
Rates (litres/ha): 0.2 – 0.4
Timing: Apply as soon as there is sufficient leaf area to absorb the spray.

Crop: Sugar Beet
Rates (litres/ha): 0.2
Timing: With repeat dose herbicide programmes, apply with each application.
Rates (litres/ha): 0.4
Timing: Conventional application as soon as there is sufficient leaf area to absorb the spray.

Crop: Peas
Rates (litres/ha): 0.2
Timing: Apply just before or at flowering and repeat if necessary 10 - 14 days later.

Crop: Top and Soft Fruit
Rates (litres/ha): 0.2
Timing: Begin application in early Spring and repeat as necessary throughout the season.

Crop: Pasture
Rates (litres/ha): 0.2 – 0.4
Timing: Apply in early Spring, the treatment should be repeated annually.

Arable crops: 200 - 600 litres per hectare
Fruit crops: 500 - 1000 litres per hectare

NB: Do not exceed a solution concentration of 0.1% (100 grams per 100 litres of water).

Small Scale Use: Knapsack sprayer - Prepare a 0.05 - 0.1% (0.5 - 1.0 ml per litre) solution and apply so as to coat the leaves and stems with a thin film of moisture with little or no run-off.

Hydroponics/fertigation: 1ppm (15.63 µmol/L) copper can be achieved by adding 11 mls of Solufeed Cu 9.1 EDTA-L per 1000L of solution.

Compatibility: Solufeed Cu 9.1 EDTA-L is compatible with all other Solufeed chelates and many crop care chemicals. They are also fully compatible with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Cu 14 EDTA
Chelated copper fertilizer

Highly effective and compatible microgranular formulation of copper (Cu) EDTA.

Uses

1. To prevent and correct copper deficiency in most agricultural, horticultural and ornamental crops. Recommended for soil and foliar application.

2. As a copper micronutrient source for hydroponics, liquid feed solutions and inert growing media.

Benefits

Solufeed Cu 14 EDTA is a highly stable, top quality, chelated copper fertilizer for safe, efficient and convenient prevention and correction of copper deficiency. Supplied as free-flowing, dustless and soluble microgranules.

Compatible with many crop protection materials enabling economic tank mixing for simultaneous application.

Also compatible with soluble phosphates, thereby remaining effective in hydroponics and liquid feed systems.

Analysis: A spray agglomerated microgranule formulation of copper ethylenediaminetetraacetate (Cu EDTA) containing w/w:

Water soluble Cu:	14%
Cu chelated by EDTA:	min 13.3%

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: Blue microgranule.

Solubility: ~350 g/l (in water @ 20°C).

Solufeed Cu 14 EDTA should be dissolved in a convenient volume of water to suit the application equipment and to ensure even ground coverage.

Soil application
For general crops, apply as a coarse low pressure spray immediately before the last cultivation prior to sowing or planting. Where crops are established, apply between the rows. Applications should be incorporated into the top few centimetres of soil as soon as possible after application.

For perennial crops, apply as a coarse low pressure spray in a wide circular band under the limit of the full branch spread. For best results, nutrients need to be in the root zone before seasonal growth begins and this can be achieved by appropriate application timing.

Foliar application rates *
Farm crops 0.5 – 2.0 kg per ha
Trees 7 – 30 grams per tree
Shrubs 0.1 – 0.7 kg per 100 bushes
Soft fruit 0.1 – 0.3 kg per 100 plants
*Depending on size, degree of deficiency etc

NB Fruit Crops: Do not exceed a solution of 0.1% (1g/l) for any one or combination of Solufeed chelates.

Crop: Winter Cereals
Rates (litres/ha): 0.25 – 0.50
Timing: Apply when Spring re-growth commences. For severe deficiency, an additional full rate application soon after tillering (ZCK 23).

Crop: Spring Cereals
Rates (litres/ha): 0.25 – 0.50
Timing: Apply as soon as there is sufficient leaf area to absorb the spray.

Crop: Sugar Beet
Rates (litres/ha): 0.25
Timing: With repeat dose herbicide programmes, apply with each application.
Rates (litres/ha): 0.5
Timing: Conventional application as soon as there is sufficient leaf area to absorb the spray.

Crop: Peas
Rates (litres/ha): 0.25
Timing: Apply just before or at flowering and repeat if necessary 10-14 days later.

Crop: Top and Soft Fruit
Rates (litres/ha): 0.25
Timing: Begin application in early Spring and repeat as necessary throughout the season.

Crop: Pasture
Rates (litres/ha): 0.25 – 0.5
Timing: Apply in early Spring, the treatment should be repeated annually.

Arable crops: 200 - 600 litres per hectare
Fruit crops: 500 - 1000 litres per hectare

NB: Do not exceed a solution concentration of 0.1% (100 grams per 100 litres of water).

Small Scale Use: Knapsack sprayer - Prepare a 0.05 - 0.1% (0.5-1.0 gram per litre) solution and apply so as to coat the leaves and stems with a thin film of moisture with little or no run-off.

Hydroponics/fertigation: 1ppm (15.63 µmol/L) copper can be achieved by adding 7.7 grams of Solufeed Cu 14 EDTA per 1000L of solution.

Compatibility: Solufeed Cu 14 EDTA is compatible with all other Solufeed chelates and many crop care chemicals. They are also fully compatible with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 1kg and 25kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Fe 7.0 DTPA
Chelated iron fertilizer

Highly effective and compatible microgranular formulation of iron (Fe) DTPA.

Uses

An iron micronutrient source for hydroponics, liquid feed solutions and soil-less growing media.

Benefits

Solufeed Fe 7.0 DTPA is a highly stable, top quality, chelated iron fertilizer for safe, efficient and convenient prevention and correction of iron deficiency.

Supplied as free-flowing, dustless readily soluble microgranules.

Compatible with soluble phosphates thereby remaining effective in hydroponics and liquid feed systems.

Analysis: Liquid formulation of ferric disodium diethylenetriamine penta acetate (Fe DTPA) containing w/w:

Water soluble Fe:	7.0%
Fe chelated by DTPA:	min 6.6%

Practical pH stability range: 4.0 – 7.5 (in aqueous solution).

Appearance: Yellow/brown agglomerate.

Solubility: 150 g per litre (at 20°C).

Hydroponics/fertigation: 1ppm (17.86 µmol/L) iron can be achieved by adding 15 grams of Solufeed Fe 7.0 DTPA per 1000L of solution.

Compatibility: Solufeed Fe 7.0 DTPA is compatible with all other Solufeed chelates and with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 1kg and 25kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Fe 11 DTPA
Chelated iron fertilizer

Highly effective and sodium-free microgranular formulation of the ammonium form of iron (Fe) DTPA.

Uses

An iron micronutrient source for hydroponics, liquid feed solutions and soil-less growing media.

Benefits

Solufeed Fe 11 DTPA is a highly stable, top quality, chelated iron fertilizer for safe, efficient and convenient prevention and correction of iron deficiency.

Low Sodium – ideal for re-circulating systems.

Supplied as free-flowing, dustless readily soluble microgranules.

Compatible with soluble phosphates thereby remaining effective in hydroponics and liquid feed systems.

Analysis: Liquid formulation of ferric hydrogen diethylenetriamine penta acetate (Fe DTPA) containing w/w:

Water soluble Fe: 11%

Fe chelated by DTPA: min 10.5%

Practical pH stability range: 4.0 – 7.5 (in aqueous solution).

Appearance: Yellow/brown agglomerate.

Solubility: 150 g per litre (at 20°C).

Hydroponics/fertigation: 1ppm (17.86 µmol/L) iron can be achieved by adding 9.5 grams of Solufeed Fe 11 DTPA per 1000L of solution.

Compatibility: Solufeed Fe 11 DTPA is compatible with all other Solufeed chelates and with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 1kg and 25kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Fe 3.0 DTPA-L
Chelated liquid iron fertilizer

Effective and compatible liquid formulation of iron (Fe) DTPA.

Uses

An iron micronutrient source for hydroponics, liquid feed solutions and soil-less growing media.

Benefits

Solufeed Fe 3.0 DTPA-L is a highly stable, top quality, chelated iron fertilizer for safe, efficient and convenient prevention and correction of iron deficiency.

Supplied as an easy to use liquid for simple volumetric measuring.

Compatible with soluble phosphates thereby remaining effective in hydroponics and liquid feed systems.

Analysis: Liquid formulation of ferric sodium diethylenetriamine penta acetate (Fe DTPA) containing:

	w/w	w/v
Water soluble Fe:	3.0%	3.9%
Fe chelated by DTPA:	min 2.9%	3.77%

Practical pH stability range: 4 – 7.5 (in aqueous solution).

Appearance: Dark red/brown liquid.

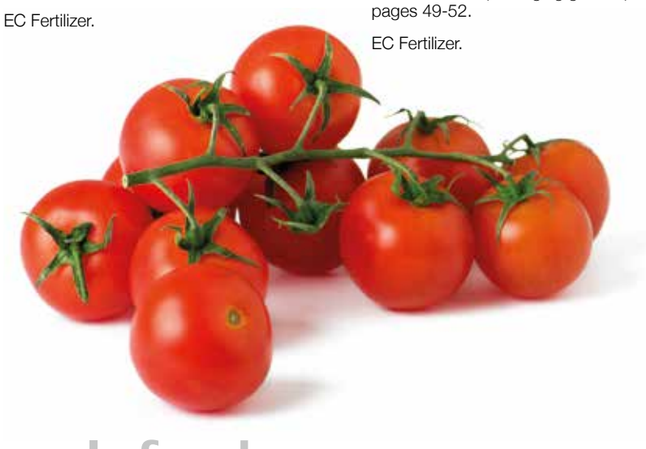
Solubility: Completely miscible with water.

Hydroponics/fertigation: 1ppm (17.86 µmol/L) iron can be achieved by adding 35 grams (27 ml) of Solufeed Fe 3.0 DTPA-L per 1000L of solution.

Compatibility: Solufeed Fe 3.0 DTPA-L is compatible with all other Solufeed chelates and with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 32kg (25 litres) - see packaging guide options on pages 49-52.

EC Fertilizer.



Fe 6.0 DTPA-L
Chelated liquid iron fertilizer

Highly effective and compatible liquid formulation of the ammonium form of iron (Fe) DTPA.

Uses

An iron micronutrient source for hydroponics, liquid feed solutions and soil-less growing media.

Benefits

Solufeed Fe 6.0 DTPA-L is a highly stable top quality chelated iron fertilizer for safe, efficient and convenient prevention and correction of iron deficiency.

Supplied as an easy to use liquid for simple volumetric measuring.

Compatible with soluble phosphates thereby remaining effective in hydroponics and liquid feed systems.

Sodium free – ideal for recirculation systems.

Analysis: Liquid formulation of ferric ammonium diethylenetriamine penta acetate (Fe DTPA) containing:

	w/w	w/v
Water soluble Fe:	6.0%	7.8%
Fe chelated by DTPA:	min 5.7%	7.4%

Practical pH stability range: 4 – 7.5 (in aqueous solution).

Appearance: Dark red/brown liquid.

Solubility: Completely miscible with water.

Hydroponics/fertigation: 1ppm (17.86 µmol/L) iron can be achieved by adding 17 grams (13 ml) of Solufeed Fe 6.0 DTPA-L per 1000L of solution.

Compatibility: Solufeed Fe 6.0 DTPA-L is compatible with all other Solufeed chelates and with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 20 litres and 192 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Fe 6.0 EDDHA 3.8 Extra *o-o*
Chelated iron fertilizer

High performance spray agglomerated formulation of iron (Fe) EDDHA (3.8% ortho ortho content).

Uses

To prevent and correct iron deficiency in most, horticultural, ornamental and arable crops growing in soils of adversely high pH. Recommended for soil application either directly or via fertigation systems.

As a highly effective iron source in hydroponics especially during periods of poor iron uptake caused by environmental or physiological factors.

Benefits

Contains 6% water soluble iron chelated by EDDHA of which 3.8% is chelated by the most biologically effective ortho-ortho isomer.

Solufeed Fe 6 EDDHA Extra is a highly stable iron chelate suitable for use in high pH soils with high calcium carbonate levels .

Supplied as free-flowing, dustless and readily soluble spray agglomerated microgranules.

Compatible with soluble phosphates thereby remaining effective in hydroponics and liquid feed systems.

Analysis: A spray agglomerated microgranule formulation of ferric ethylenediamine bis-(2-hydroxyphenyl acetate) (Fe EDDHA) containing w/w:

Water soluble Fe:	6.00%
Fe chelated by EDDHA:	5.70% minimum
Fe chelates by o-o EDDHA	3.8%

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: Dark red/black spray dried agglomerated microgranule.

Solubility: ~120 g/l (in water @ 20°C).

Rates of Use (kg/ha)
Field Crops: 2.5 - 5.5 kg/ha
Citrus
Young Trees: 500 - 750g per 100m²
Mature Tree: 200 - 500g per tree
Annual Maintenance: 100 - 150g per tree
Top Fruit: Apply 25 - 125 grams per tree.
Soft Fruit: Apply 750 - 1500 grams per 100 metres of row in a band or as a side dressing.
Ornamental Shrubs: Apply 20 - 50 grams per bush.
Ornamental Plants: Apply 60 grams per 10m².

Hydroponics/fertigation: 1ppm (17.86mmol/l) iron can be achieved by adding 17 grams of Solufeed Fe 6 EDDHA Extra per 1000 litres of solution.

Compatibility: Solufeed Fe 6 EDDHA Extra is compatible with other Solufeed chelates and with solutions containing soluble phosphates such as liquid feeds.

Packaging: Normal packaging - 1kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Fe 6.0 EDDHA Premium 4.8 *o-o*
Chelated iron fertilizer

Ultra-high performance spray agglomerated formulation of iron (Fe) EDDHA.

Uses

To prevent and correct iron deficiency in most, horticultural, ornamental and arable crops growing in soils of adversely high pH.

Recommended for soil application either directly or via fertigation systems.
In high value cropping systems where absolute confidence in product efficacy is essential.

Benefits

Contains 6% water soluble iron chelated by EDDHA of which 4.8% is chelated by the most biologically effective ortho-ortho isomer.

Solufeed Fe 6.0 EDDHA Premium is highly stable iron chelate suitable for use in high pH soils with high calcium carbonate levels .

Supplied as free-flowing, dustless and readily soluble spray agglomerated microgranules.

Compatible with soluble phosphates thereby remaining effective in hydroponics and liquid feed systems.

Analysis: A spray agglomerated microgranule formulation of sodium ferric ethylenediamine bis-(2-hydroxyphenyl acetate) (Fe EDDHA Na) containing:

Water soluble Fe:	6.00%
Fe chelated by EDDHA:	5.70% minimum
Fe chelated by o-o EDDHA	4.80%

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: Dark red/black spray dried agglomerated microgranule.

Solubility: ~120 g/l (in water @ 20°C).

Rates of Use (kg/ha)
Field Crops: 2.0 - 4.5 kg/ha
Citrus
Young Trees: 400 - 600g per 100m²
Mature Tree: 150 - 450g per tree
Annual Maintenance: 80 - 120g per tree
Top Fruit: Apply 20 - 100 grams per tree.
Soft Fruit: Apply 600 - 800 grams per 100 metres of row in a band or as a side dressing.
Ornamental Shrubs: Apply 16 - 40 grams per bush.
Ornamental Plants: Apply 50 grams per 10m².

Timing: In general, application timing should ensure that the chelate is in the root feeding zone at the required time such as onset of seasonal growth.

For annual field crops, apply just before sowing/planting or when iron deficiency symptoms begin to appear.

Hydroponics/fertigation: 1ppm (17.86mmol/l) iron can be achieved by adding 17 grams of Solufeed Fe 6.0 EDDHA Premium per 1000 litres of solution.

Compatibility: Solufeed Fe 6.0 EDDHA Premium is compatible with Solufeed chelates and with solutions containing soluble phosphates such as liquid feeds.

Packaging: Normal packaging - 1kg and 25kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Fe 7.0 EDDHA Regular
Chelated iron fertilizer

Economy grade iron (Fe) EDDHA-based iron fertilizer.

Uses

To prevent and correct iron deficiency in most, horticultural, ornamental and arable crops growing in high pH soils. Recommended for soil application either directly or via fertigation systems.

Benefits

Contains 6.0% water soluble iron suitable for high pH soils.

Supplied as free-flowing, dustless and readily soluble spray agglomerated microgranules.

Compatible with soluble phosphates thereby remaining effective in hydroponics and liquid feed systems.

Analysis w/w

Water soluble Fe:	7.0%
Fe chelated by EDDHA	6.7%

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: Dark red/black spray dried agglomerated microgranule.

Solubility: ~100 g/l (in water @ 20°C).

Rates of Use (kg/ha)
Field Crops: 2.5 - 5.5 kg/ha

Citrus
Young Trees: 500 - 750g per 100m²
Mature Tree: 200 - 500g per tree
Annual Maintenance: 100 - 150g per tree

Top Fruit: Apply 25 - 125 grams per tree.
Soft Fruit: Apply 750 - 1500 grams per 100 metres of row in a band or as a side dressing.
Ornamental Shrubs: Apply 20 - 50 grams per bush.
Ornamental Plants: Apply 60 grams per 10m².

Compatibility: Solufeed Fe 6 EDDHA Regular is compatible with other Solufeed chelates and with solutions containing soluble phosphates such as liquid feeds.

Packaging: Normal packaging - 1kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Fe 13.2 EDTA
Chelated iron fertilizer

Highly effective and compatible microcrystalline formulation of iron (Fe) EDTA

Uses

1. As an iron micronutrient source for hydroponics, liquid feed solutions and soilless growing media.
2. To prevent and correct iron deficiency in most, horticultural, ornamental and arable crops. Recommended for foliar application.

Benefits

Solufeed Fe 13.2 EDTA is a highly stable, top quality, chelated iron fertilizer for safe, efficient and convenient prevention and correction of iron deficiency. Supplied as free-flowing, dustless and soluble microcrystals.

Compatible with soluble phosphates thereby remaining effective in hydroponics and liquid feed systems.

Analysis: A microcrystalline formulation of iron ethylenediamine tetraacetate (Fe EDTA) containing w/w:

Water soluble Fe:	13.2%
Fe chelated by EDTA:	min 12.5%

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: Yellow crystalline solid.

Solubility: ~75 g/l (in water @ 20°C).

Foliar Application: Solufeed Fe 13.2 EDTA should be dissolved in a convenient volume of water to suit the spraying machine being used and the target crop leaf area. The following points should be observed:

NB Fruit Crops: Do not exceed a solution of 0.1% (1g/l) for any one or combination of Solufeed chelates.

Application rates, general: Solufeed Fe 13.2 EDTA may be applied in one application of 1.0 kilograms per hectare but optimum results can be expected if repeat applications are used. In general, foliar applications should be started early in the season as soon as there is sufficient leaf area to absorb the spray.

Arable crops: 200-600 litres per hectare.
Fruit crops: 500-1000 litres per hectare.

NB: Do not exceed a solution concentration of 0.1% (100 grams per 100 litres of water).

Small Scale Use: For example, using a knapsack sprayer. Prepare a 0.05 - 0.1% (0.5 - 1.0 gram per litre) solution and apply so as to coat the leaves and stems with a thin film of moisture with little or no run-off.

Hydroponics/fertigation: 1ppm (17.86 µmol/L) iron can be achieved by adding 7.5 grams of Solufeed Fe 13.2 EDTA per 1000L of solution.

Compatibility: Solufeed Fe 13.2 EDTA is compatible with all other Solufeed chelates and many crop care chemicals. They are also fully compatible with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 1kg and 25kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Fe 7.7 EDTA-L
Chelated liquid iron fertilizer

Highly effective and compatible liquid formulation of the ammonium salt of iron (Fe) EDTA containing 100g/litre iron.

Uses

An iron micronutrient source for hydroponics, liquid feed solutions and soil-less growing media.

Benefits

Solufeed Fe 7.7 EDTA-L is a highly stable, top quality, chelated iron fertilizer for safe, efficient and convenient prevention and correction of iron deficiency.

Sodium free – ideal for recirculation systems.

Compatible with soluble phosphates, thereby, remaining effective in hydroponics and liquid feed systems.

Analysis: Liquid formulation of ferric ammonium ethylenediamine tetra acetate (Fe EDTA) containing:

Water soluble Fe: 7.7 % w/w (10.0% w/v)

Fe chelated by EDTA: 7.4 % w/w (9.5 % w/v)

Practical pH stability range: 4 – 8.5 (in aqueous solution).

Specific gravity: 1.3 kg/litre.

Appearance: Red/dark brown liquid.

Solubility: Completely miscible with water.

Hydroponics/fertigation: 1ppm (17.86 µmol/L) iron can be achieved by adding 13.2 grams (10 ml) of Solufeed Fe 7.7 EDTA-L per 1000L of solution.

Compatibility: Solufeed Fe 7.7 EDTA-L is compatible with all other Solufeed chelates and with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 20 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

KaliFer

New

Speciality high solubility, sodium-free FeEDTA formulation

Uses

Most FeEDTA chelates are based on sodium (being the counter ion); KaliFer is not - it is based on potassium (K).

Can replace traditional sodium based FeEDTA products in all applications.

As an efficient iron source in hydroponics and fertigation particularly those where excess sodium is an issue. Such as in recirculating systems and sodic or saline soils.

Useful where high solubility is required such as creating stock tank solutions.

Benefits

Sodium free formulation so ideal for situations where sodium levels in the soil or feed solution are an agronomic issue.

High solubility for the confident preparation of concentrated stock solutions.

Supplied as free flowing, dustless spray agglomerated microgranules for ease of use.

Contains 13% water soluble iron, high analysis for lower rates of use.

Compatible with soluble phosphates thereby remaining effective in hydroponics and liquid feed systems.

Analysis

A microgranular formulation of ferric potassium ethylenediaminetetraacetic acid (FeKEDTA) containing:

Water soluble Fe:	13.0 %
Fe chelated by EDTA:	13.0 %
Practical pH stability range:	4.0 – 7.5
in aqueous solution.	

Hydroponics/fertigation nutrient solutions

1ppm (17.86mmol/l) iron can be achieved by adding 7.5 grams of Solufeed KaliFer per 1,000 litres of final feed solution. Usually achieved by making up concentrated stock tank and then diluting.

Also suitable for foliar application.

Packaging: Normal packaging 1 and 25kg see pages 49-52.

EC Fertilizer.

Mg 5.5 EDTA
Chelated magnesium fertilizer

Highly effective and compatible microgranular formulation of magnesium (Mg) EDTA.

Uses

1. To prevent and correct magnesium deficiency in most agricultural, horticultural and ornamental crops. Recommended for foliar application.
2. As a magnesium source for hydroponics, liquid feed solutions and soil-less growing media.

Benefits

Solufeed Mg 5.5 EDTA is a highly stable top quality chelated magnesium fertilizer for safe, efficient and convenient prevention and correction of magnesium deficiency.

Supplied as free-flowing, dustless and soluble microgranules.

Compatible with many crop protection materials enabling economic tank mixing for simultaneous application.

Also compatible with soluble phosphates thereby remaining effective in hydroponics and liquid feed systems.

Analysis: A spray agglomerated microgranule formulation of magnesium ethylenediamine tetraacetate (Mg EDTA) containing w/w:

Water soluble Mg: 5.5 %

Appearance: Off white granule.

Solubility: ~400 g/l (in water @ 20°C).

Application rates: Solufeed Mg 5.5 EDTA may be applied in one application of 1.0 – 2.0 kilograms per hectare but optimum results can be expected if repeat applications are used.

Arable crops: 200-600 litres per hectare.

Fruit crops: 500-1000 litres per hectare.

NB: Do not exceed a solution concentration of 0.1% (100 grams per 100 litres of water).

Compatibility: Solufeed Mg 5.5 EDTA is compatible with all other Solufeed chelates and many crop care chemicals. They are also fully compatible with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Solufeed Mg 5.5 EDTA must not be mixed with any inorganic calcium compounds such as calcium nitrate.

Packaging: Normal packaging - 1kg and 25kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Mn 13 EDTA
Chelated manganese fertilizer

Highly effective and compatible microgranular formulation of Manganese (Mn) EDTA.

Uses

1. To prevent and correct manganese deficiency in most agricultural, horticultural and ornamental crops. Recommended for foliar application.
2. As a manganese micronutrient source for hydroponics, liquid feed solutions and inert growing media.

Benefits

Compatible with many crop protection materials enabling economic tank mixing for simultaneous application.

Also compatible with soluble phosphates, thereby remaining effective in hydroponics and liquid feed systems.

A spray agglomerated microgranule formulation of manganese ethylenediamine tetraacetate (Mn EDTA) containing w/w:

Analysis:

Water soluble Mn:	13%
Mn chelated by EDTA:	min 12.5%

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: Off white granule.

Solubility: ~300 g/l (in water @ 20°C).

Application rates, specific

Crop: Winter Cereals
Rates (kg/ha): 1.0
Timing: Apply when Spring regrowth commences. For severe deficiency, an additional full rate application soon after tillering (ZCK 23).

Crop: Spring Cereals
Rates (kg/ha): 1.0
Timing: Apply as soon as there is sufficient leaf area to absorb the spray.

Crop: Sugar Beet
Rates (kg/ha): 0.5
Timing: With repeat dose herbicide programmes, apply with each application.
Rates (kg/ha): 1.0
Timing: Conventional application as soon as there is sufficient leaf area to absorb the spray.

Crop: Potatoes
Rates (kg/ha): 0.5
Timing: At tuber initiation or before the tops meet the rows.
Rates (kg/ha): 1.0
Timing: Applied with each routine blight spray.

Crop: Peas
Rates (kg/ha): 0.5
Timing: Apply just before or at flowering and repeat if necessary 10-14 days later.

Crop: Top and Soft Fruit
Rates (kg/ha): 1.0
Timing: Begin application in early Spring and repeat as necessary throughout the season.

Crop: Pasture
Rates (kg/ha): 1.0
Timing: Apply in early Spring, the treatment should be repeated annually.
Arable crops: 200-600 litres per hectare.
Fruit crops: 500-1000 litres per hectare.

NB: Do not exceed a solution concentration of 0.1% (100 grams per 100 litres of water).

Small Scale Use: Knapsack sprayer - Prepare a 0.05-0.1% (0.5 - 1.0 gram per litre) solution and apply so as to coat the leaves and stems with a thin film of moisture with little or no run-off.

Hydroponics/fertigation: 1ppm (18.18µmol/L) manganese can be achieved by adding 7.7 grams of Solufeed Mn 13 EDTA per 1000L of solution.

Compatibility: Solufeed Mn 13 EDTA is compatible with all other Solufeed chelates and many crop care chemicals. They are also fully compatible with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 1kg and 25kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Mn 6 EDTA-L
Chelated liquid manganese fertilizer

Highly effective and compatible liquid formulation of manganese (Mn) EDTA.

Uses

To prevent and correct manganese deficiency in most agricultural, horticultural and ornamental crops. Recommended for foliar application.

Benefits

Solufeed Mn 6 EDTA-L is a highly stable, top quality, chelated manganese fertilizer. Supplied as an easy to use liquid formulation.

Compatible with many crop protection materials enabling economic tank mixing. Also compatible with soluble phosphates, thereby remaining effective in hydroponics and liquid feed systems.

Excellent environmental and regulatory credentials.

Analysis:
Water soluble Mn: 6.2% w/v ± 0.2%
Mn chelated by EDTA: min 5.9 % w/v

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: Pink liquid.

Specific gravity: 1.3

Application rates, foliar, specific
Crop: Winter Cereals
Rate (l/ha): 2.5
Timing: Apply when Spring re-growth commences. For severe deficiency, an additional full rate application soon after tillering (ZCK 23).

Crop: Spring Cereals
Rate (l/ha): 2.5
Timing: Apply as soon as there is sufficient leaf area to absorb the spray.

Crop: Sugar Beet
Rate (l/ha): 1.0
Timing: With repeat dose herbicide programmes, apply with each application.
Rate (l/ha): 2.5
Timing: Conventional application as soon as there is sufficient leaf area to absorb the spray.

Crop: Potatoes
Rate (l/ha): 2.5
Timing: At tuber initiation or before the tops meet the rows.
Rate (l/ha): 1.0
Timing: Apply with each routine blight spray.

Crop: Peas
Rate (l/ha): 2.5
Timing: Apply just before or at flowering and repeat if necessary 10-14 days later.

Crop: Top and Soft Fruit
Rate (l/ha): 1.0
Timing: Begin application in early Spring and repeat as necessary throughout the season.

Crop: Pasture
Rate (l/ha): 2.5
Timing: Apply in early Spring, the treatment should be repeated annually.

Small Scale Use: Knapsack sprayer - Prepare a 0.1 - 0.2% (1.0 – 2.0 mls per litre) solution and apply so as to coat the leaves and stems with a thin film of moisture with little or no run-off.

Hydroponics/fertigation: 1ppm (18.18µmol/litres) manganese can be achieved by adding 16 mls of Solufeed Mn 6 EDTA-L per 1000 litres of solution.

Compatibility: Solufeed Mn 6 EDTA-L is compatible with all other Solufeed chelates and many crop care chemicals. They are also fully compatible with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 1, 5, 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Rapid
Chelated iron fertilizer

New

Speciality high performance liquid formulation of FeEDDHSA

Uses

For the speedy, 'emergency' correction of iron deficiency when symptoms appear in a growing crop.

As an efficient iron source in hydroponics and fertigation systems particularly where low pH stock tanks are employed.

A high performance iron chelate to prevent and correct iron deficiency in most, horticultural and ornamental crops growing in high pH conditions.

Especially recommended where the correction of iron deficiency is agronomically critical to achieve crop quality and profitability.

Benefits

Contains 2.01% water soluble iron chelated by EDDHSA, 95% of which is chelated by the ortho-ortho isomer. This is most biologically effective so correction of iron deficiency is quick and reliable.

Remains physically in solution at very low pH levels so ideal for adding to acidified "A" stock tanks.

High chemical stability therefore suitable for use in calcareous, high pH (up to 9.0 and above) soils.

Compatible with soluble phosphates thereby remaining effective in hydroponics and liquid feed systems.

Supplied as an easy to use liquid formulation. Can be measured volumetrically and disperses instantly.

Analysis
A liquid formulation of sodium ferric ethylenediamine bis-(2-hydroxysulphonylphenyl acetate) (Fe EDDHSA Na) containing:

Water soluble Fe: 2.0 %
Fe chelated by EDDHSA: 2.0 %
Fe chelated by o-o EDDHSA minimum 1.9 %
Practical pH stability range: 4 – 10 (in aqueous solution)
Emergency remediation of iron deficiency

For ornamentals, nursery stock and similar crops apply a drench containing 25 mls Solufeed Rapid per 100 litres of water. Repeat up to three times at 5 – 7 day intervals or until symptoms improve. Thereafter revert to the normal feeding regime but keep monitoring the crop.

Hydroponics/fertigation nutrient solutions
1ppm (17.86mmol/l) iron can be achieved by adding 39 mls of Solufeed Rapid per 1,000 litres of final feed solution. Usually achieved by making up concentrated stock tank and then diluting.

Also suitable for soil application

Packaging
Normal packaging, outer carton containing 12 x 1 litre polythene bottles 20 litre polythene drums. See pages 49-52.

EC Fertilizer

TEC
Multi-chelated micronutrient fertilizer

New Formula

A carefully formulated, balanced chelated micronutrient source for hydroponics and fertigation.

Uses

Solufeed TEC is designed as a source of trace elements for growers who mix their own NPK fertilizer.

Solufeed TEC is widely used in the production of tomato, cucumber and other salad crops in hydroponics and other inert media culture. It is particularly valuable in NFT production systems. Also suitable for mixing with fertilizer to use in growing media and soil based production systems for ornamentals. Suitable for strawberries and other soft fruit.

Benefits

- Efficient delivery of micronutrients – up to 5 times more efficient than sulphate-based mixes.
- Quick and simple to use; only one product to measure out and hold in stock.
- Fully compatible formulation prevents sludging, sedimentation, "rusty roots" and blocked drip lines.

Analysis:
A soluble microgranule formulation containing w/w:

Element		Soluble in water (%)	Chelated by EDTA (%min)
Boron	(as B)	0.92	As sodium borate
Copper	(as Cu)	0.23	0.23
Iron	(as Fe)	6.67	8.40
Manganese	(as Mn)	2.00	2.00
Molybdenum	(as Mo)	0.15	As molybdate
Zinc	(as Zn)	1.16	1.16

pH stability range: 3 – 7 (in aqueous solution).

Appearance: Blue/green powder.

Hydroponics: Dissolve 300 g Solufeed TEC per 100 litres stock solution and dilute according to the normal feeding programme. The micronutrient concentration in the stock tank will be as follows:

Element	Concentration (ppm)
Boron (B)	32
Copper (Cu)	7
Iron (Fe)	252
Manganese (Mn)	60
Molybdenum (Mo)	4.5
Zinc (Zn)	35

Fertilizer supplement: 100 g per 10 kg of soluble fertilizer.

Packaging: Normal packaging - 10kg - see packaging guide options on pages 49-52.

EC Fertilizer.

TE-Mag
Chelated trace elements with magnesium

A balanced blend of the six essential trace elements chelated by EDTA with magnesium (Mg) for use as a foliar spray or for addition to irrigation water (fertigation).

Uses

Crops grown on calcarious soils (e.g. the Mediterranean basin or much of the Middle East) are prone to micronutrient and magnesium deficiencies. The alkaline (high pH) nature of these soils "locks-up" nutrients and makes them unavailable to the plant. Plants show characteristic symptoms, often a yellowing of the new growth, and the crop yield and quality is reduced.

TE-Mag is an efficient foliar fertilizer formulated with chelated micronutrients and magnesium which will provide essential nutrients directly into the plant leaves.

Can be applied through drip irrigation lines (fertigation) to supply nutrient to the plant roots.

Benefits

- Solufeed TE-Mag provides a rapid boost to nutrient levels to help overcome deficiencies and increase yield.
- Efficient chelated (EDTA) formulation for reliable performance.
- Micro-granular blend is low dust and ensures rapidly and complete solubility.
- Mixes with most other agrochemicals and fertilizers.

Analysis	% w/w
Magnesium as MgO	1.79
Boron (B) soluble in water	0.09
Copper (Cu) chelated by EDTA	0.10
Iron (Fe) chelated by EDTA	10.09
Manganese (Mn) chelated by EDTA	1.10
Molybdenum (Mo) soluble in water	0.05
Zinc (Zn) chelated by EDTA	0.53

Appearance: Brown/white blended powder

Solubility in water: 100% soluble at recommended application rates.

Application rates and directions for use:

Foliar application:
Field crops: 25 grams per 100 litres of spray solution. Apply when sufficient leaf to absorb spray at beginning of growing season and repeat 3 times at 2 week intervals.
Fruit trees: 25 grams per 100 litres of spray solution and apply several sprays during the growing season. Do not spray crops in flower.
Vegetables: 12.5 grams per 100 litres of spray solution. Apply 3 or 4 times at 2 week intervals.
Fertigation: 50 grams of TE-Mag per 1000 litres of irrigation water. In soils of above pH 7.0 it may be necessary to add Solufeed Fe6 EDDHA to ensure adequate levels of available iron (Fe).

Packaging: Normal packaging - 10kg, 20kg - see packaging guide options on pages 49-52.

EC Fertilizer.

TE-Mag CITRUS
Chelated trace elements with magnesium

A balanced blend of the six essential trace elements chelated by EDTA with magnesium for use as a foliar spray.

Uses

Citrus and other crops grown on calcarious soils (e.g. the Mediterranean basin or much of the Middle East) are prone to micronutrient and magnesium deficiencies. TEMag Citrus is an efficient foliar fertilizer formulated with chelated micronutrients which will provide essential nutrients directly into the plant leaves.

Can be applied through drip irrigation lines (fertigation) to supply nutrient to the plant roots.

Benefits

- Solufeed TE-Mag Citrus provides a rapid boost to nutrient levels to help overcome deficiencies.
- Mixes with most other agrochemicals and fertilizers.

Analysis	% w/w
Magnesium as MgO	4.2
Boron (B) soluble in water	0.80
Copper (Cu) chelated by EDTA	0.50
Iron (Fe) chelated by EDTA	7.00
Manganese (Mn) chelated by EDTA	2.50
Molybdenum (Mo) soluble in water	0.30
Zinc (Zn) chelated by EDTA	0.90

Appearance: Brown/white blended powder.

Solubility in water: 100% soluble at recommended application rates.

Application rates: 25 grams per 100 litres of spray solution.

Directions: Spray to run-off. Apply several sprays per season at two week intervals. Do not apply to crops during flowering.

Packaging: Normal packaging - 1 kg, 10kg, 20kg - see packaging guide options on pages 49-52.

EC Fertilizer.

TE Mix EDDHA
For calcareous sandy soils

Trace Element (TE) mix based on iron (Fe) EDDHA with other elements as sulphates.

Uses

A balanced mix of the four major metal micronutrients, for use in overhead irrigation systems or through drip lines.

A typical use would be through centre pivot irrigation systems onto cereals and other field crops growing in alkaline desert sands. Also suitable for tractor application, small scale knapsack application, to a wide range of crops.

Benefits

Solufeed TE Mix EDDHA provides iron (Fe) chelated by the powerful high-performance chelated EDDHA, which keeps Fe available to the plant even in very alkaline soils (high pH soils).

Other nutrients Copper (Cu), Manganese (Mn) and Zinc (Zn) in 100% soluble form as high purity sulphates.

Analysis	**% w/w**
Copper (Cu) soluble in water	2.00
Iron (Fe) chelated by EDDHA	1.80
Manganese (Mn) soluble in water	14.40
Zinc (Zn)	2.80

Appearance: Blended powder mix.

Application rates
Overhead/tractor: 5 – 10 kg per hectare (depending on severity of deficiency).

Knapsack sprayer
Field crops: 2 – 3 applications of 25 grams/100 litres water.
Fruit trees: 25 grams/100 litres water. Several applications/year.
Vegetables: 12.5 grams/100 litres water. 3-4 applications at 10 - 14 day intervals.
Protected crops: 6 grams/100 litres water with surfactant. 2 – 3 applications at 10 - 14 day intervals.

Statutory caution: Harmful. Dangerous to the environment.

Packaging: Normal packaging - 1kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Zn 14 EDTA
Chelated zinc fertilizer

Highly effective and compatible microgranular formulation of zinc (Zn) EDTA.

Uses

1. To prevent and correct zinc deficiency in most agricultural, horticultural and ornamental crops. Recommended for soil and foliar application.
2. As a zinc micronutrient source for hydroponics, liquid feed solutions and inert growing media.

Benefits

Solufeed Zn 14 EDTA is a highly stable, top quality, chelated zinc fertilizer for safe, efficient and convenient prevention and correction of zinc deficiency. Supplied as free-flowing, dustless and soluble microgranules.

Compatible with many crop protection materials enabling economic tank mixing for simultaneous application.

Also compatible with soluble phosphates, thereby remaining effective in hydroponics and liquid feed systems.

Analysis: A spray agglomerated microgranule formulation of zinc ethylenediaminetetraacetate (Zn EDTA) containing

	% w/w
Water soluble Zn:	14%
Zn chelated by EDTA:	min 13.3%

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: White microgranule.

Solubility: ~300 g/l (in water @ 20°C).

Foliar Application: Solufeed Zn 14 EDTA should be dissolved in a convenient volume of water to suit the spraying machine being used and the target crop leaf area. The following points should be observed:

NB Fruit Crops: Do not exceed a solution of 0.1% (1g/l) for any one or combination of Solufeed chelates.

Application rates, specific
Crop: Winter Cereals
Rate (kg/ha): 0.5 – 1.0
Timing: Apply when Spring re-growth commences. For severe deficiency, an additional full rate application soon after tillering (ZCK 23).

Crop: Spring Cereals
Rate (kg/ha): 0.5 – 1.0
Timing: Apply as soon as there is sufficient leaf area to absorb the spray.

Crop: Maize
Rate (kg/ha): 0.5 – 1.0
Timing: Apply as soon as there is sufficient leaf area to absorb the spray.

Crop: Top and Soft Fruit
Rate (kg/ha): 0.5
Timing: Begin application in early Spring and repeat as necessary throughout the season.

Crop: Pasture
Rate (kg/ha): 0.25 0.5
Timing: Apply in early Spring, the treatment should be repeated annually.

Water Volume
Arable crops: 200 - 600 litres per hectare
Fruit crops: 500 - 1000 litres per hectare

Small Scale Use
Knapsack sprayer - Prepare a 0.05 - 0.1% (0.5 - 1.0 gram per litre) solution and apply so as to coat the leaves and stems with a thin film of moisture with little or no run-off.

Hydroponics/fertigation: 1ppm (15.63 µmol/L) zinc can be achieved by adding 7.1 grams of Solufeed Zn 14 EDTA per 1000L of solution.

Compatibility: Solufeed Zn 14 EDTA is compatible with all other Solufeed chelates and many crop care chemicals. They are also fully compatible with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 1kg and 25kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Zn 9.5 EDTA-L
Chelated liquid zinc fertilizer

Highly effective and compatible liquid formulation of zinc (Zn) EDTA.

Uses

1. To prevent and correct zinc deficiency in most agricultural, horticultural and ornamental crops. Recommended for soil and foliar application.
2. As a zinc micronutrient source for hydroponics, liquid feed solutions and inert growing media.

Benefits

Solufeed Zn 9.5 EDTA-L is a highly stable, top quality, chelated zinc fertilizer solution for safe, efficient and convenient prevention and correction of zinc deficiency. Supplied as an easy to use liquid formulation.

Compatible with many crop protection materials enabling economic tank mixing for simultaneous application.

Also compatible with soluble phosphates, thereby remaining effective in hydroponics and liquid feed systems.

Analysis: A liquid formulation of zinc ethylenediaminetetraacetate (Zn EDTA) containing:

Water soluble Zn: 9.5 % w/v ±0.5% (7.3 % w/w)
Zn chelated by EDTA: min 9.0 % w/v (6.9 % w/w)

Practical pH stability range: 4 – 9 (in aqueous solution).

Appearance: Straw coloured liquid.
NB Foliar application to Fruit Crops: Do not exceed a solution of 0.1% (1g/l) for any one or combination of Solufeed chelates. Application rates, specific.

Crop: Winter Cereals
Rate (l/ha): 2.5
Timing: Apply when Spring re-growth commences. For severe deficiency, an additional full rate application soon after tillering (ZCK 23).

Crop: Spring Cereals
Rate (l/ha): 1.5 – 3.0
Timing: Apply as soon as there is sufficient leaf area to absorb the spray.

Crop: Peas
Rate (l/ha): 1.0
Timing: Apply just before or at flowering and repeat if necessary 10-14 days later.

Crop: Top and Soft Fruit
Rate (l/ha): 1.0
Timing: Begin application in early Spring and repeat as necessary throughout the season.

Crop: Pasture
Rate (l/ha): 1.5 – 3.0
Timing: Apply in early Spring. The treatment should be repeated annually.

Water Volume
Arable crops: 200 - 600 litres per hectare
Fruit crops: 500 - 1000 litres per hectare

Small Scale Use
Knapsack sprayer - Prepare a 0.05 - 0.1% (0.5-1.0 ml per litre) solution and apply so as to coat the leaves and stems with a thin film of moisture with little or no run-off.

Hydroponics/fertigation: 1ppm (15.38 µmol/L) zinc can be achieved by adding 11 mls of Solufeed Zn 9.5 EDTA-L per 1000L of solution.

Compatibility: Solufeed Zn 9.5 EDTA-L is compatible with all other Solufeed chelates and many crop care chemicals. They are also fully compatible with solutions containing soluble phosphates such as liquid feeds and foliar fertilizers.

Packaging: Normal packaging - 1, 5, 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Balancer
Liquid B+Mo foliar fertilizer

Use as a foliar spray to rapidly boost the levels of the trace elements boron (B) and molybdenum (Mo). This will maximise crop growth and yield and prevent deficiencies.

Uses

Use as a foliar spray to rapidly boost the levels of the trace elements boron (B) and molybdenum (Mo). This will maximise crop growth and yield and prevent deficiencies.

Benefits

Crucifers and Brassica species in particular (including oilseed rape) as well as fodder crops like alfalfa are prone to deficiencies of the essential micronutirents boron (B) and molybdenum (Mo). Foliar application with Solufeed Balancer can rapidly restore the nutrient levels in the plant tissues, and prevent yield loss and deficiency diseases such as “Black heart” from boron (B) deficiency and “Whiptail” from molybdenum (Mo) deficiency.

Analysis	% w/v	(% w/w)
Boron (B) soluble in water	14.0	(10.5)
Molybdenum (Mo)	1.0	(0.75)

Appearance: A free flowing pink liquid.

Solubility in water: Fully miscible with water.

Application rates:
Tractor application: 0.5 – 1.0 litres per hectare in 200 litres of water per hectare.

Knapsack application: 0.5 – 1 ml per litre of water and spray to point of run-off.

Use higher rates on dense, tall or vigorous crops.

Compatibility: Physically compatible with many agricultural chemicals. Test and check label of partner product before mixing.

Packaging: Normal packaging 1, 5, 10 and 20 litre - see packaging guide options on pages 49-52.

EC Fertilizer.

Boron 150
High analysis liquid boron

A boron-ethanolamine formulation containing 15% (w/v) boron (B).

Uses

For the prevention and correction of boron deficiency in many agricultural and horticultural crops.

Recommended for foliar application.

Benefits

Foliar applications of Solufeed Boron 150 are particularly beneficial when:

- The amount of soil-applied boron has to be restricted to avoid leaving high residues which could be toxic to subsequent sensitive crops such as potatoes.
- Soil applied boron has been leached away by heavy rainfall.

Analysis: Water soluble boron: 15% (w/v); 11% (w/w).

Appearance: Pinkish liquid.

Solubility in water: Fully soluble in water.

Application rates:

Marginal deficiency: 1.25 l/ha in at least 200 l/ha water.

Moderate deficiency: 2.5 l/ha in at least 200 l/ha water.

Severe deficiency: 2.5 l/ha in at least 200 l/ha water.
(It is recommended to follow with a further application 3 - 4 weeks later and again if necessary.)

Application timing: In general, apply Solufeed Boron 150 whenever a boron deficiency is observed or expected. Apply after the 3-leaf stage, or when there is enough foliage on the crop to absorb the spray.

Oilseed rape: Apply in the early Spring just after the start of stem elongation. Where boron deficiency is severe, an additional application in the preceding Autumn is also recommended.

Sugar beet: Apply just before the crop meets in the rows.

Compatibility: Solufeed Boron 150 is physically compatible with many spray-applied agricultural chemicals. Consult your supplier for the latest information.

Packaging: Normal packaging - 1, 5, 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Brassimax
Brassica Sp. fertilizer

A soluble powder foliar fertilizer developed for all Brassica species.

Uses

A supplementary foliar feed with a combination of nutritional elements and a balanced n:s ratio. Particularly useful to combat common deficiency diseases in brassica crops.

Benefits

1. Balanced blend of concentrated nutrients developed to meet the needs of the crop.
2. Rapidly and completely soluble concentrated powder formulation suitable for use in tractor sprayers. Minimal packaging waste.
3. Nutrients that are immediately available to the plant, formulated for good uptake and efficient utilisation, as well as crop safety.

Analysis		% w/w
Total Nitrogen		7.3%
Magnesium (Mg) as MgO		6.7%
Sulphur (S) as SO_3		18.7%
Boron Soluble in water	(B)	7.0%
Copper Soluble in water	(Cu)	2.0
Manganese Soluble in water	(Mn)	1.6%
Molybdenum Soluble in water	(Mo)	0.04%

Appearance: Blended powder.

Application rates and directions:

Crop: Market brassica
Rate/ha: 3 – 5 kg per hectare in 200 – 400 litres of water per hectare.
Timing: Apply in Spring as soon as the crop has made sufficient leaf to absorb the spray. Repeat as necessary at 2 week intervals throughout the growing season. For overwintered crops an Autumn application is recommended.

Crop: Oilseed Rape
Rate/ha: 3 – 5 kg per hectare in 200 – 400 litres of water per hectare.
Timing: Apply in Autumn once the crop has made sufficient leaf to absorb the spray. Repeat in the Spring at the onset of growth.

Packaging: Normal packaging - 10kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Bud Complex
NPK Foliar Feed for fruit trees

Helps build up the fruiting buds that create next year’s fruit.

Uses

A very soluble powder foliar fertilizer to provide essential nutrients directly into the foliage of apples and other top-fruit crops. Helps to keep the leaves active for longer, and provides the nutrients which help to build up the new fruiting buds for the subsequent year’s harvest. Also commonly used as a regularly applied in-season foliar feed for the orchard.

Benefits

- Easy to use, fast dissolving powder formulation.
- Nutrients fully and immediately available to the plant.
- Formulated for easy absorption and rapid uptake through the leaves.
- A balanced blend of the necessary nutrients for efficiency and economy.
- Manganese chelated by EDTA for maximum availability and efficiency.

Analysis	% w/w
P_2O_5 (P)	6.4 (2.79)
K_2O (K)	2.1 (1.77)
MgO (Mg)	14.7 (8.92)
Boron (B) soluble in water	2.3
Zinc (Zn) (EDTA)	3.8

Appearance: Blended crystalline powder.
Solubility in water: Rapidly and completely soluble.

Application rates:
Tractor sprayer: 5 kg per hectare in 200 litres of water.

Knapsack sprayer: 50 ml per 10 litres of spray to solution and spray to run off.

Directions: Apply as soon as possible after harvest.

In-season applications from early in the season (as soon as there is sufficient leaf to absorb the spray) and repeat as necessary at two week intervals. Do not apply during flowering or during the heat of the day or during drought. Do not mix with products containing calcium.

Packaging: Normal packaging - 10kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Captain
Calcium and phosphorus liquid foliar fertilizer

Foliar phosphorus (P) with calcium (Ca) and nitrogen (N).

Uses

To provide a readily-available source of phosphorus (P) and calcium (Ca) directly to the foliage of the plant, giving a boost to the levels of these essential nutrients found in the plant tissues. High levels of P and Ca in fruit improve firmness and extends the storage stability (shelf life) of the fruit.

Benefits

- Improves fruit firmness
- Lengthens storage life
- Enhances fruit colour
- Easy to use clear, stable solution

Analysis	% w/v	(% w/w)
Nitrogen (N)	3.4	(2.3)
Phosphorus (P_2O_5)	32.5	(22.4)
Phosphorus (P)	14.45	(9.9)
Calcium (CaO)	5.9	(4.0)
Calcium (Ca)	4.1	(2.8)

Appearance: Clear yellow solution.
Solubility in water: Completely miscible with water.

Application rates:
Tractor sprayer – 10 litres per hectare in 500 –1000 litres water.

Knapsack sprayer – 200 ml in 10 litres of water. Spray to run-off.

Directions: Repeat applications (up to 5) at 7 – 14 day intervals from petal fall.

Packaging: Normal packaging - 5 litres, 10 litres, 20 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Cash SC
Calcium, Boron and Zinc concentrated liquid SC foliar fertilizer

Uses

A foliar spray for a wide range of crops including field vegetables, top fruit and soft fruit to improve yield and quality.

Benefits

- A combination of nutrients which will encourage flower and fruit formation, and the subsequent development of firm fruits and tissues with a good post-harvest shelf life.
- Slow release formulation of mineral nutrients with no risk of scorch.
- Concentrated nutrients in convenient SC liquid formulation.

Analysis	% w/v	(% w/w)
Calcium (Ca) as Calcium Oxide (CaO)	56.0	(32.0)
Zinc (Zn)	3.1	(1.8)
Boron (B)	1.8	(1.02)

Specific gravity: 1.75 kg per litre.

Appearance: Opaque viscous liquid.

Solubility in water: Suspension that is fully miscible with water.

Application rates: 1 – 2 litres per hectare in at least 200 litres of water per Ha.

Timing: First application just before flowering. Repeat at 14 day intervals up to harvest.

Statutory caution: Do not tank mix with other agricultural chemicals. Harmless when used as directed.

Packaging: Normal packaging - 1 litre and 5 litre - see packaging guide options on pages 49-52.

Extra Potentate Plus

Phosphite based fertilizer with trace elements

Concentrated liquid N P & K fertilizer containing potassium phosphite with nitrogen and chelated trace elements.

Uses

Applied by foliar spray or through drip irrigation to the roots to a very wide variety of agricultural and horticultural crops. Supplies phosphorus in the mobile phosphite (HPO_3) form, as well as potassium (K_2O) and nitrogen (N) with a balanced addition of the six essential trace elements, chelated by EDTA.

Benefits

Solufeed Extra Potentate Plus is a stable, concentrated and easy to use liquid formulation which provides nutrition to the plant resulting in:

- Increased top growth and root development.
- Better yields.
- Improved fruit quality.
- Improved plant health.

Analysis	w/w
Nitrogen (N)	3.1%
Phosphorus as P_2O_5 (P)	27.9% (12.1%)
Potassium as K_2O (K)	18.6% (15.5%)
Boron (B)	0.01%
Copper (Cu) – EDTA	0.03%
Iron (Fe) – EDTA	0.04%
Manganese (Mn) – ETDA	0.02%
Molybdenum (Mo)	0.002%
Zinc (Zn) – EDTA	0.001%

Analysis	w/v
Nitrogen (N)	4.4%
Phosphorus as P_2O_5 (P)	39.4% (17.2%)
Potassium as K_2O (K)	26% (21.9%)
Boron (B)	0.01%
Copper (Cu) – EDTA	0.04%
Iron (Fe) – EDTA	0.05%
Manganese (Mn) – ETDA	0.03%
Molybdenum (Mo)	0.003%
Zinc (Zn) – EDTA	0.001%

Appearance: Green free-flowing liquid.

Solubility in water: Fully miscible with water.

Application rates:

Crop	Rate in litres per hectare
Vegetables	2 – 4
Soft fruit	2 – 4
Top Fruit	2 – 4
Potatoes	1 – 4
Vines	1 – 4
Lettuce	2 – 4
Hops	1 - 4

Compatibility: Physically compatible with many foliar and soil applied crop chemicals. Check by test-mixing small amounts at the correct dilution.

Packaging: Normal packaging - 1, 2.5, 5, 10, 20 and 1000 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Factor

Economical liquid foliar trace element spray

Foliar trace elements spray for fruit trees and bush fruit.

Uses

Ideal for use as a foliar spray on fruit (stone fruit, top fruit or bush fruit) growing on high pH calcareous soils which are subject to deficiencies of iron (Fe), zinc (Zn) and other trace elements.

Benefits

Provides a readily absorbed form of iron (Fe) plus a balanced mix of the five other essential trace elements in an easy to use, stable, liquid formulation.

Analysis	% w/v	(% w/w)
Nitrogen (N)	1.52	(1.30)
Sulphur (S) as SO_3	4.82	(4.13)
Boron (B) soluble in water	0.50	(0.43)
Copper (Cu) soluble in water	0.34	(0.29)
Iron (Fe) soluble in water	1.27	(1.08)
Manganese (Mn) soluble in water	1.40	(1.20)
Zinc (Zn) soluble in water	1.96	(1.68)

Appearance: Free flowing liquid.

Solubility in water: Fully miscible with water.

Application rates: 150 ml per 100 litres of water and spray to run off.

Timing: Apply early in the season as soon as there is sufficient leaf cover to absorb the spray. Repeat as necessary at 3 week intervals.

Statutory caution: Do not tank mix with other agricultural chemicals. Harmless when used as directed.

Packaging: Normal packaging - 1 litre, 5 litre, 10 litre - see packaging guide options on pages 49-52.

Fo-Cal

Foliar calcium liquid fertilizer

Premium quality liquid calcium foliar-feed with added nutrients. Specifically designed for foliar application and containing added surfactants to improve adhesion and maximise the plant uptake.

Uses

Solufeed Fo-Cal is designed to prevent or correct calcium deficiency in a wide variety of crops.

Recommended for foliar application.

Benefits

- For top fruit, lettuce, apples, strawberries, vegetables, flowers, stone fruit and many other crops.
- Unique, highly effective formulation based on calcium nitrate.
- Added nutrients including magnesium, zinc and boron for balanced plant health.

Analysis	% w/v	% w/w
Calcium oxide (CaO)	22.5	15.0
Total Nitrogen	14.9	10.0
Nitrate nitrogen	14.1	9.4
Ammoniacal nitrogen	0.8	0.53
Magnesium oxide (MgO)	3.0	2.0
Boron (as polyborate)	0.075	0.05
Zinc (as Zn EDTA)	0.03	0.02

Appearance: Liquid.

Solubility in water: Completely miscible with water.

Directions for use:

Outdoor lettuce: In order to prevent tipburn, it is important that Solufeed Fo-Cal is applied directly to the susceptible tissue. For this reason early treatment is essential with applications beginning before head formation and being repeated every 7 - 14 days as necessary.

Rate: 5.0 litres per hectare
Water volume: 200 litres per hectare minimum

Apples: Apply in a programme with repeat applications being made every 10-14 days before harvest.

Rate: 7 - 14 litres per hectare.

Water Volume: 500 litres per hectare (to point of run-off) on small trees, increase pro-rata for larger trees as necessary.

Soft fruit – Strawberries: For best results apply in a programme beginning at flowering.

Applications can be repeated every 7 - 14 days as necessary.

Rate: Maintenance 2.5 litres per hectare

Deficiency: 5.0 litres per hectare

Water volume: 500 - 1000 litres per hectare

Vegetable Brassicas: In general apply Solufeed Fo-Cal early in the growing season when there is active growth and sufficient leaf area to absorb the spray.

Rate: 5.0 litres per hectare

Water volume: 200 litres per hectare minimum

Celery: Calcium deficiency usually occurs in young leaves at the centre of the plant. Applications should begin in the early Spring and be repeated every 7 - 14 days as necessary.

Rate: 5.0 litres per hectare

Water volume: 200 litres per hectare minimum

Clean the spraying equipment at the end of each spraying day and rinse with fresh water.

Tank mixing compatibility: Solufeed Fo-Cal is physically compatible with many of the pesticides, growth regulators and micronutrients that are in current usage.

Packaging: Normal packaging - 1, 5, 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Foliar Mix

A micronutrient blend for agricultural crops in calcareous sandy soils

Rapidly soluble powder blend of all nutrients and trace elements.

Uses

To provide a chelated foliar feed to a wide range of agricultural crops including wheat, barley, oilseed rape, peas etc. growing in calcareous sandy soils of low nutrient status (semi desert soils), and where the high pH of the soil may “lock up” many trace elements.

Benefits

- A balanced blend of all essential nutrients and trace elements.
- Chelated micronutrients for efficient feeding.
- Fast uptake and quick crop response.
- Minimal packaging waste.
- Rapidly and completely water-soluble powder formulation.

Analysis	% w/w
Magnesium as MgO (Mg)	2.0 (1.2)
Sulphur as SO_3 (S)	4.14 (1.6)
Boron (B) soluble in water	1.5
Copper (Cu) soluble in water	0.5
Iron (Fe) chelated by EDTA	4.0
Manganese (Mn) soluble in water	3.0
Molybdenum (Mo) soluble in water	0.05
Zinc (Zn) soluble in water	4.0

Appearance: Beige blended powder.

Solubility in water: Completely soluble in water.

Application rates: 5 kg per hectare (5 grams per 10 litres of water).

Directions: Apply as soon as there is sufficient foliage to absorb the spray.

Apply through overhead irrigation, tractor sprayer or knapsack. Repeat as necessary at 14 – 21 day intervals.

Packaging: Normal packaging - 20 kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Fruit Tree Complex
Balanced foliar feed

Foliar fertilizer for orchard crops.

Uses

A foliar fertilizer for a wide variety of orchard crops including top fruit (apples, pears), stone fruit (cherries, apricots, peaches).

Benefits

Solufeed Fruit Tree Complex provides:
- A balanced blend matching nutrient supply in the product with typical in-season nutrient deficiencies in the plant.
- Instantly soluble powder for ease of application through tractor powered sprayers.
- Formulation for crop safety.

Analysis		% w/w
Total Nitrogen (N)		6.4
Of which	NO_3-N	0.9
	NH_4-N	1.5
	Ureic-N	4.0
Phosphorus pentoxide P_2O_5 (P)		3.0 (1.3)
Potassium oxide K_2O (K)		3.2 (2.6)
Magnesium oxide MgO (Mg)		13.2 (7.9)
Sulphur as SO_3 (S)		35.8 (14.3)
Boron (B) soluble in water		0.04
Iron (Fe) chelated by EDTA		1.35
Manganese (Mn) soluble in water		0.04
Zinc (Zn) soluble in water		2.31

Appearance: Blended powder.

Solubility in water: Fully water soluble.

Application rates: 5 kg per hectare in at least 200 litres of water per ha.

Directions: Apply regularly, as required, up to six times per year, starting as soon as there is sufficient foliage to absorb the spray.

The minimum interval between sprays is two weeks. Early sprays are of the greatest benefit. A core programme would comprise of at least 3 treatments. Do not apply during the flowering period of the crop as insects may be deterred from pollination.

Packaging: Normal packaging - 10kg - see packaging guide options on pages 49-52.

Genie 300
Liquid plant growth stimulant

Contains natural seaweed extracts.

Uses

A growth promoter for agricultural and horticultural crops to maximise yields and quality. Also suitable for application to all types of turf.

Recommended for foliar application.

Benefits

The most concentrated liquid formulation for easy storage, handling and use. Solufeed Genie 300 is a carefully formulated solution containing extracts from the seaweed ascophyllum nodosum, generally regarded as the best source of plant growth stimulant.

Solufeed Genie 300 is suitable for use in organic growing. In the UK Solufeed Genie 300 is approved by the Soil Association.

Composition: A concentrated liquid suspension containing 300 grams per litre (30% w/v) ascophyllum nodosum seaweed solids including natural growth stimulants, cytokinins, gibberellins, betaines and auxins.

Appearance: Dark brown viscous liquid.

pH: 7.8 – 8.8

Foliar Application
Application rates and timing:

Crop: Winter Cereals
Rate (l/ha): 0.5
Timing: At or after GS 21 (Autumn).
Rate (l/ha): 1.0
Timing: After GS 30 (following Spring).

Crop: Spring Cereals
Rate (l/ha): 1.0
Timing: Apply as soon as there is sufficient leaf area to absorb the spray.

Crop: Oilseed rape
Rate (l/ha): 1.0
Timing: Pre-Christmas after 5 leaf stage.
Rate (l/ha): 2.0
Timing: Following Spring after green bud stage.

Crop: Sugar Beet (and other root crops)
Rate (l/ha): 2.0
Timing: When there is sufficient leaf area to absorb the spray

Crop: Potatoes 1st earlies and seed
Rate (l/ha): 2.0
Timing: Between stolon swelling and peasized tubers.

Crop: Potatoes 2nd earlies and m/crop
Rate (l/ha): 2.0
Timing: When tubers are 1.5 - 2.0 cm diameter.

Crop: Potatoes Bakers/low tuber count
Rate (l/ha): 2.0
Timing: Stolon swelling to pea sized tubers.
Rate (l/ha): 2.0
Timing: When tubers are 1.5 – 2.0 cm diameter.

Crop: Peas
Rate (l/ha): 2.0
Timing: Before flowering.

Crop: Leafy brassicae
Rate (l/ha): n/a
Timing: Root dip with 3.0 % solution at transplanting time.
Rate (l/ha): 2.0
Timing: After first top dressing.

Crop: Grassland
Rate (l/ha): 0.5
Timing: In Autumn before dormancy. Start of re-growth in the following Spring.

Crop: Turf and sports fields
Rate (l/ha): 1.0 – 2.0
Timing: Use from April until September.

Crop: Other crops
Rate (l/ha): 1.0 – 2.0
Timing: When there is sufficient foliage to absorb the spray and/or at key growth stages.

Water Volume: The amount of Solufeed Genie 300 to be applied should be mixed with a volume of water appropriate to the crop leaf area of the type of spraying machine being used. Typically,
Arable crops: 200 - 600 litres per hectare.

Compatibility: Solufeed Genie 300 is compatible with many other crop care chemicals.

Packaging: Normal packaging - 5, 10 , 20 litres - see packaging guide options on pages 49-52.

Genie GOLD
Liquid plant growth stimulant

Contains natural seaweed extracts plus added NPK 6:6:8.

Uses

A growth promoter for agricultural and horticultural crops to maximise yields, quality and profitability.

Recommended for foliar application.

Composition: Solufeed Genie Gold is a liquid containing water-soluble extracts of ascophyllum nodosum including cytokinins, gibberellins and auxins together with nitrogen, phosphorus and potassium.

Analysis	w/w%
Total nitrogen (N)	5.9%
Nitrate nitrogen (NO_3-N)	1.1%
Ammoniacal nitrogen (NH_4-N)	1.3%
Ureic nitrogen (Ur-N)	3.5%
Phosphorus pentoxide (P_2O_5) soluble in water	5.8%
Potassium oxide (K_2O) soluble in water	8.4%

Appearance: Dark brown liquid.

Foliar Application rates and timing
Crop: Winter Cereals
Rate (l/ha): 3.0 – 5.0
Timing: At or after GS 21 (Autumn).
Then after GS 30 (following Spring).
Then if necessary at full flag leaf.

Crop: Oilseed rape
Rate (l/ha): 5.0
Timing: At stem extension when crop is 30 – 45cm tall and repeat as necessary up to flowering.

Crop: Sugar Beet (and other root crops)
Rate (l/ha): 5.0
Timing: When there is sufficient leaf area to absorb the spray. Repeat as necessary.

Crop: Potatoes
Rate (l/ha): 5.0
Timing: Apply every 2 – 4 weeks from when the crop has sufficient leaf area to absorb the spray until flowering.

Crop: Peas
Rate (l/ha): 5.0
Timing: When the crop has sufficient leaf area to absorb the spray and repeat before the end of flowering.

Crop: Leafy brassicae
Rate (l/ha): 5.0
Timing: Applied as necessary during season.

Crop: Grassland
Rate (l/ha): 5.0
Timing: In Autumn and Spring during periods of active growth.

Crop: Hay and silage
Rate (l/ha): 5.0
Timing: During active Springtime growth.
Rate (l/ha): 12.0
Timing: After 1st cut where reduced fertilizer inputs are practised.

Crop: Other crops
Rate (l/ha): 1.25 - 5.0
Timing: When there is sufficient foliage to absorb the spray and/or at key growth stages.

Water Volume
Arable crops: 200 - 600 litres per hectare.

Small Scale Use: For example, using a knapsack sprayer. Prepare a 0.2 - 0.4% (2.0 - 4.0 ml/l) solution and apply so as to coat the leaves and stems with a thin film of moisture with little or no run-off.

Compatibility: Solufeed Genie Gold is compatible with many other crop care chemicals.

Packaging: Normal packaging - 5, 10 , 20 litres - see packaging guide options on pages 49-52.

EC Fertilizer

Grammy
Broad spectrum foliar nutrition

Balanced nutrient supplement for wheat and other graminaceous crops.

Uses

A foliar feed for wheat, barley and other graminaceous crops. Use to supplement the nutrient status of the plant during rapid Spring growth or when the root system is unable to supply sufficient nutrients due to cold, wet, compaction, poor soils etc.

Benefits

- A rapidly available supply of a balance of all essential nutrients in soluble form.
- Chelated micronutrients for efficient feeding and good mixing ability.
- Readily and completely soluble.
- Good mixer with other agricultural chemicals.
- Excellent value for money.
- Concentrated. Easy to use, handle and store. Minimal packaging waste.

Analysis	% w/w
Nitrogen (N)	20.00
Phosphorus (P) as P_2O_5 soluble in water	8.00
Potassium (K) as K_2O	14.00
Magnesium (Mg) as MgO	3.00
Soluble Sulphur (S) as SO_3	17.00
Boron (B) soluble in water	0.010
Copper (Cu) chelated by EDTA	0.002
Manganese (Mn) chelated by EDTA	0.060
Molybdenum (Mo) soluble in water	0.001
Zinc (Zn) chelated by EDTA	0.002

Appearance: Blended crystalline powder with blue indicator dye.

Solubility in water: More than 200 g/litre at 20˚C.

Heavy metal content: Less than 10 ppm.

Application rates: 3 – 6 kg per hectare.

Packaging: Normal packaging - 10kg and 20kg - see packaging guide options on pages 49-52.

EC Fertilizer.

HYP
Liquid high phosphorus foliar fertilizer

Uses

Many soils especially those of a sandy nature, are often deficient in phosphorus (P), potassium (K) and magnesium (Mg); the traditional remedy is to apply large quantities of expensive granular fertilizers. Solufeed Hyp is a more effective alternative providing readily available P, K and Mg,

The product is specially designed for foliar application.

Benefits

Solufeed Hyp can be applied to a wide range of crops including field crops (e.g. wheat), vegetable crops (e.g. Brassica species) and fruit crops (e.g. apples).

Analysis	% w/v	% w/w
Phosphorus as P_2O_5	44.0	29.12
(Phosphorus as P	19.45	12.87)
Potassium as K_2O	7.4	4.8
(Potassium as K	6.1	4.0)
Magnesium as MgO	8.0	5.3
(Magnesium as Mg	4.8	3.2)

Appearance: A water miscible clear liquid.

Application rates:
Large scale application: Apply through overhead irrigation (e.g. centre pivot) or tractor sprayer at the rate of 5 litres per hectare in at least 200 litres of water per hectare.

Small scale application: Apply through knapsack sprayer at the rate of 500 ml per 100 litres water and spray to run off.

Do not tank mix with other products.

Packaging: Normal packaging - 1, 5, 10, 20 and 1000 litre IBC - see packaging guide options on pages 49-52.

EC Fertilizer.

Kalium 50
Foliar potassium with magnesium and chelated trace elements

Rapidly soluble powder formulation which can be easily applied by tractor or knapsack sprayer.

Uses

For foliar application to a wide range of fruit, root and vegetable crops including top fruit, and soft fruit.

Benefits

Directly boosts the levels of potassium (K) to provide firm, sweet fruit.

Chelated trace elements and magnesium help maintain plant health to maximise yield and quality.

Provides sulphur (S) an essential secondary nutrient.

pH controlled formulation for rapid uptake by the leaf.

Concentrated powder which is formulated for very rapid dissolution in the spray tank.

Analysis	% w/w
Potassium oxide (K_2O)	51.3
Magnesium oxide (MgO)	0.02
Sulphur as SO_3	45.65
Boron (B) soluble in water	0.012
Copper (Cu) chelated by EDTA	0.001
Iron (Fe) chelated by EDTA	0.125
Manganese (Mn) chelated by EDTA	0.013
Molybdenum soluble in water	0.0008
Zinc (Zn) chelated by EDTA	0.007

Appearance: Blended off-white powder.

Application rates and timing: 4 kg per 100 litres of spray tank solution. Apply from the time fruits are first visible. Repeat at 14 day intervals up to harvest.

Packaging: Normal packaging - 20kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Kiwi Fruit complex
Balanced foliar fertilizer

Foliar fertilizer specially formulated for Kiwi Fruit.

Uses

A foliar fertilizer for Kiwi Fruit.

When crops are growing fast and conditions do not favour nutrient uptake through the roots (due to, for example, compaction, waterlogging, disease, poor soil nutrient status etc) then a well formulated foliar feed like Kiwi Fruit Complex can provide a rapid boost of macro and micro nutrients that the crop needs and maintain the crops yield potential.

Benefits

Solufeed Kiwi Fruit Complex provides:
- A balanced blend created as a result of the study of tissue analysis results from the Kiwi Fruit crop over many seasons – matching nutrient supply in the product with typical in-season nutrient deficiencies in the plant.
- Instantly soluble for ease of application through tractor powered sprayers.
- Leaf-penetrating formulation for rapid uptake.
- Produced in England by ISO 9001 accredited manufacturer using the purest, top quality raw materials for crop-safe, reliable and consistent results.

Analysis % w/w

Total Nitrogen (N)		6.40	
Of which	NO_3-N	3.34	
	NH_4-N	3.06	
Phosphorus pentoxide P_2O_5 (P)		3.0	(1.3)
Potassium oxide K_2O (K)		3.2	(2.6)
Magnesium as MgO (Mg)		12.7	(7.7)
Sulphur as SO_3 (S)		7.8	(3.1)
Boron (B)		0.04	
Iron (Fe) EDTA		1.35	
Manganese (Mn) EDTA		0.04	
Zinc (Zn) EDTA		1.50	

Appearance: Blended powder.

Solubility in water: Fully water soluble

Application rates: 5 kg per hectare in at least 200 litres of water per ha.

Directions: Apply regularly, as required, up to six times per year, starting as soon as there is sufficient foliage to absorb the spray. A core programme of at least 3 treatments would be:
1st application just before the bees go into the crop in the Spring.
2nd application two weeks after pollination and as required during the season.
3rd application immediately post harvest in mixture with Solufeed copper oxychloride.

Non-cropping young orchards under establishment: Apply as required but at least 3 applications during the growing season.

Packaging: Normal packaging - 10kg - see packaging guide options on pages 49-52.

Liquid N 34
Foliar nitrogen fertilizer

Contains 34% w/v (27% w/w) nitrogen to stimulate vegetative growth on a very wide range of crops.

Uses

Use whenever crops require additional nitrogen to boost growth which cannot be supplied through the root system due to cold weather, waterlogging, compacted soils, lack of fertilizer in the soil etc.

Benefits

Contains a mix of all nitrogen types for rapid adsorption and lasting effect.

Stable solution which physically mixes readily with many commonly applied agricultural chemicals.

Easy to use, handle and store.

Analysis		% w/v	(w/w):
Total nitrogen (N)		34.0	(26.9)
Of which	NO_3-N	8.4	(6.7)
	NH_4-N	8.6	(6.8)
	Ureic-N	17.0	(13.5)

Appearance: Clear yellow solution.

Solubility in water: Fully miscible with water

Application rates: 2.5 – 5.0 litres per hectare in not less than 100 litres of water per hectare. Use higher rates in dense or large crops.

Compatibility: Physically compatible with most commonly applied agricultural chemicals.

Packaging: Normal packaging - 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Liquid Copper
435 g/litre Copper oxychloride

A foliar inorganic micronutrient fertilizer suitable for a wide range of arable and horticultural crops. Formulated as a suspension concentrate (SC).

Uses

To correct or prevent copper deficiency in a wide range of agricultural and horticultural crops.

Benefits

Copper is an essential micronutrient. It is involved in the enzyme systems in association with other elements and is particularly active in many of the metabolic pathways within the cell. All crops can be affected by copper deficiency including cereals, vegetables, fruit, brassicas, root crops, horticultural crops and grassland.

Analysis: 435 grams per litre (32.2% w/w) copper oxychloride equivalent to 256 grams per litre of elemental copper (Cu).

Appearance: An opaque blue-green liquid.

Application rates:

Marginal deficiency: 0.25 litres per hectare.

Moderate/severe deficiency: 0.5 litres per hectare.

Packaging: Normal packaging - 5, 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Mag 300 Liquid
300 g/litre Magnesium (Mg)

Concentrated liquid foliar fertilizer containing magnesium (Mg) formulated as a suspension concentrate (SC).

Uses

To prevent magnesium deficiencies in a wide range of agricultural and horticultural crops.

Benefits

A highly concentrated, stable solution which is easy to use, handle and store.
SC formulation physically mixes with most commonly applied agricultural chemicals.
Provides source of magnesium (Mg) which feeds the crop over many weeks.

Analysis: 300 grams per litre of magnesium (Mg).

Appearance: White opaque viscous liquid.

Solubility in water: Fully miscible with water.

Application rates: 4 litres per hectare in not less than 100 litres of water per hectare.

Directions: Apply as soon as deficiency symptoms appear. Repeat at 14 – 21 day intervals as necessary. If a programmed application, apply early in the season as soon as there is sufficient foliage to absorb the spray.

Packaging: Normal packaging - 5 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Mn 500
Inorganic liquid manganese fertilizer

Suspension concentrate (SC) formulation containing 500 g/l manganese (Mn).

Uses

To prevent and correct manganese deficiency in most agricultural, horticultural and ornamental crops. Recommended for foliar application.

Benefits

Solufeed Mn 500 is a high quality high analysis inorganic manganese fertilizer.

Compatible with many crop protection materials.

Analysis: A suspension concentrate formulation 500 g/l (273 g/kg) manganese.

Appearance: Light brown/cream liquid.

Miscibility: Fully miscible in water.

Specific gravity: 1.83 (@20°C)

pH @ 1% solution: 8.0

Soil Application For general crops, apply as a coarse low pressure spray immediately before the last cultivation prior to sowing or planting. Where crops are established, apply between the rows. Applications should be incorporated into the top few centimetres of soil as soon as possible after application.

For perennial crops, apply as a coarse low pressure spray in a wide circular band under the limit of the full branch spread. For best results, nutrients need to be in the root zone before seasonal growth begins and this can be achieved by appropriate application timing.

Application rates, specific. Not recommended for protected crops.

Crop: Winter Cereals
Rates (l/ha): 1.0
Timing: Apply from 3 leaf stage when Spring re-growth commences. For severe deficiency an additional full rate application soon after tillering (ZCK 23).

Crop: Spring Cereals
Rates (l/ha): 1.0
Timing: Apply as soon as there is sufficient leaf area to absorb the spray.

Crop: Sugar Beet
Rates (l/ha): 1.0
Timing: Conventional application as soon as there is sufficient leaf area to absorb the spray.

Crop: Potatoes
Rates (l/ha): 1.0
Timing: At tuber initiation or before the tops meet the rows. Repeat as necessary.

Crop: Peas
Rates (l/ha): 1.0
Timing: Apply just before or at flowering and repeat if necessary 10 - 14 days later.

Crop: Top and Soft Fruit
Rates (l/ha): 1.0
Timing: Begin application in early Spring and repeat as necessary throughout the season.

Crop: Pasture
Rates (l/ha): 1.0
Timing: Apply from 4 – 6 leaf stage.
Arable crops: 200 - 600 litres per hectare
Fruit crops: 500 - 1000 litres per hectare

NB: Do not exceed a solution concentration of 0.1% (100 grams per 100 litres of water).

Small Scale Use: Knapsack sprayer: Prepare a 0.05-0.1% (0.5-1.0 g/l) solution and apply so as to coat the leaves and stems with a thin film of moisture with little or no run-off.

Compatibility: Solufeed Mn 500 is compatible with many other crop care chemicals.
Always follow recommendations closely.

Packaging: Normal packaging - 5, 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Molybdenum 60
Inorganic liquid molybdenum fertilizer

Liquid formulation containing 60 g/l molybdenum (Mo).

Uses

To prevent and correct molybdenum (Mo) deficiency in most agricultural, horticultural and ornamental crops. Recommended for foliar application.

Benefits

Solufeed Molybdenum 60 is an inorganic liquid formulation of molybdenum, designed for cost-effective correction of molybdenum deficiency in crops.

Molybdenum (Mo) is essential to the plant in small amounts for fixation of nitrogen by enzyme systems and for nitrate reduction.

Molybdenum (Mo) deficiency affects a number of crops, but particularly cauliflowers and lettuce giving rise to the characteristic 'whiptail' symptom. Other members of the brassica family can also be affected. Amongst ornamentals, poinsettia are very sensitive to molybdenum deficiency. Unlike other trace elements, molybdenum (Mo) deficiency is most likely to arise on acid soils.

Analysis: Solufeed Molybdenum 60 contains 60 g/l of molybdenum as sodium molybdate (Mo), formulated with buffering agents and a modern surfactant system to ensure stability and effective cover and adhesion to foliage.

Appearance: Clear liquid.

Miscibility: Fully miscible in water.

pH (neat): 8-9.

Application rates, general

Tractor sprayer: 0.5 - 2.0 litres per hectare
Knapsack sprayer: 5 – 20ml per 10 litres of water. Spray to run-off.
Use of a suitable surfactant where possible is recommended.

Timing: Solufeed Molybdenum 60 may be applied in one application but optimum results may be expected if repeat reduced rate applications are used.

Compatibility: Solufeed Molybdenum 60 is compatible with many other crop care chemicals. Always follow the compatibility recommendations of the partner product closely.

Packaging: Normal packaging - 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Manganese 150
Inorganic liquid manganese fertilizer

Liquid formulation containing 150 g/l manganese (Mn).

Uses

To prevent and correct manganese (Mn) deficiency in most agricultural, horticultural and ornamental crops. Recommended for foliar application.

Benefits

Solufeed Manganese 150 is a buffered liquid formulation of manganese sulphate designed for cost-effective correction of manganese deficiency in crops.

Analysis: A liquid formulation containing 150 g/l manganese (Mn) as the sulphate formulated with buffering agents and a modern surfactant system to ensure stability and effective cover and adhesion to foliage.

Appearance: Light pink liquid.

Miscibility: Fully miscible in water.

pH: approx 4.

Foliar Application application rates, general

Tractor sprayer
Marginal deficiency: 2.0 l/ha in at least 200 litres of water.
Moderate deficiency: 4.0 l/ha in at least 200 litres of water.
Severe deficiency: 4.0 l/ha in at least 200 litres of water and repeat as necessary during the growing season.

Knapsack sprayer
20 – 40ml/10 litres water. Spray to run-off.
Use of a suitable adjuvant where possible is recommended.

Timing: Solufeed Manganese 150 may be applied in one application but optimum results may be expected if repeat reduced rate applications are used. In general, foliar applications should be started early in the season as soon as there is sufficient leaf area to absorb the spray.

General information: Solufeed Mn 150 gives best results when crops have adequate supplies of water and major nutrients and are not under stress for any other reason.

Hazardous for transport.

Storage: Protect from frost, store above 5°C and away from direct sunlight.

Packaging: Normal packaging - 1, 5, 10 litres - see packaging guide options on pages 49-52.

NitoCal
Liquid calcium boron fertilizer

Liquid foliar feed for vegetables, top fruit, root crops and many other crops.

Uses

Solufeed NitoCal is suitable for top fruit, root crops and many agricultural crops such as sugar beet, maize, cereals, clover, rice, groundnut, soybean, banana, cotton, sunflowers, tomatoes, cucumber etc a source of nitrogen (N), calcium (Ca) and Boron (B).

Recommended for foliar application.

Benefits

- Supplies nitrogen (N) for rapid growth.
- Contains calcium (Ca), which improves crop quality and storage life.
- Contains boron (B); an essential micronutrient.

Analysis
A liquid formulation containing:

	% w/v	% w/w
Nitrogen (N)	10.8	9.0
Calcium (Ca)	9.2	7.7
Boron (B)	1.4	1.2

Appearance: Liquid.

Solubility in water: Completely miscible with water.

Solufeed NitoCal is physically compatible with many of the pesticides, growth regulators and micronutrients that are in current usage. Some tank mix combinations may not be compatible. Caution.

Solufeed NitoCal is unsuitable for use on strawberries, tobacco, mangos, citrus, cashew, peach, cherries, beans, melon, onion or other chloride sensitive crops. Solufeed Fo-Cal or Solufeed CaBo are the preferred products for these crops.

Packaging: Normal packaging - 20 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

NuTri
Liquid foliar feed for vegetables and other crops

A rapidly absorbed solution of sulphur (S), magnesium (Mg), boron (B), manganese (Mn) and molybdenum (Mo).

Uses

To control or prevent common deficiency diseases in all brassica's and other crops including celery, onions and potatoes.

Benefits

- Easy to use liquid solution.
- Balanced nutrients formulated to be fully and immediately available.
- Suitable for a wide range of vegetable crops.

Analysis	% w/v
Magnesium as MgO	4.00 (3.2)
Magnesium as Mg	2.40 (1.9)
Sulphur as SO_3	8.10 (6.5)
Sulphur as S	3.20 (2.6)
Boron (B)	3.00 (2.4)
Manganese (Mn) EDTA	0.01 (0.011)
Molybdenum (Mo)	2.00 (1.6)

Appearance: Yellow translucent liquid.

Solubility in water: Completely miscible with water.

Application rates:
Tractor sprayer: 5 litres per hectare in 200 litres of water.

Knapsack sprayer: 50 ml per 10 litres of spray to solution and spray to run off.

Packaging: Normal packaging - 5, 10, 20 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Nutri-K
Liquid high potassium (K) fertilizer with N and trace elements

A foliar fertilizer for sugar beet, soft fruit, top fruit and other crops that benefit from foliar K.

Uses

To boost potassium (K) and micronutrient levels through foliar application. Potassium is associated with control of the levels of sugar within the plant, and high K levels generally lead to firmer, sweeter produce.

Benefits

In many situations, the root system of the plant may be unable to supply the optimum level of nutrients. In these circumstances a foliar application of an appropriate fertilizer provide a useful response in terms of yield and quality.

Analysis	% w/v	(% w/w)
Total N	4.0	(3.12)
K_2O	33.0	(25.72)
Boron (B)	0.02	(0.01)
Copper (Cu) EDTA	0.017	(0.013)
Iron (Fe) EDTA	0.05	(0.04)
Manganese (Mn)	0.034	(0.027)
Molybdenum (Mo)	0.004	(0.003)
Zinc (Zn) EDTA	0.012	(0.009)

Appearance: Clear solution.

Solubility in water: Completely miscible with water.

Application rates: 10 - 15 litres/hectare.

Directions: Apply as a foliar spray in not less than 200 litres of water per hectare.

Packaging: Normal packaging - 25 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Potentate
0:30:20 w/w Potassium phosphite

Concentrated liquid P & K fertilizer containing potassium phosphite.

Uses

Applied by foliar spray or through drip irrigation to the roots to a very wide variety of agricultural and horticultural crops. Supplies phosphorus in the mobile phosphite (HPO_3) form, as well as potassium (K_2O).

Benefits

Solufeed Potentate is a stable, concentrated and easy to use liquid formulation which provides nutrition to the plant resulting in:

- Increased top growth and root development.
- Better yields.
- Improved fruit quality.
- Improved plant health.

Analysis	% w/w
Phosphorus as P_2O_5 (P)	30.0% (13.1%)
Potassium as K_2O (K)	20.0% (16.6%)
Phosphorus as P_2O_5 (P)	42.0% (18.3%)
Potassium as K_2O (K)	28.0% (23.3%)

Appearance: Clear free-flowing liquid.

Solubility in water: Fully miscible with water.

Application rates:

Crop	Rate in litres per hectare
Vegetables	2 – 4
Soft fruit	2 – 4
Top Fruit	2 – 4
Potatoes	1 – 4
Vines	1 – 4
Lettuce	2 – 4
Hops	1 - 4

Directions: Apply as a foliar spray in not less than 200 litres of water per hectare.

Compatibility: Physically compatible with many foliar applied crop chemicals.

Packaging: Normal packaging - 1, 2.5, 5, 10, 20 and 1000 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Rare Plus
Mg, Mo, Co foliar fertilizer for legume crops

Efficient liquid foliar feed.

Uses

Solufeed Rare Plus is designed leguminous crops (alfalfa, beans, peas, peanuts, clover etc) to promote green leaf and encourage root nodule activity, which leads to a high crop yield.

Recommended for foliar application.

Benefits

- Foliar feed provides nutrients directly into the plant.
- Includes cobalt (Co) to encourage root nodule bacteria, resulting in bigger crops.
- Chelated cobalt for an efficient, non-hazardous formulation.
- Magnesium (Mg) and molybdenum (Mo) for balanced nutrition and green leaf production.

Analysis
A liquid formulation containing:

	% w/v	% w/w
Cobalt (chelated by EDTA) (Co)	1.0	0.9
Molybdenum (Mo)	1.0	0.9
Magnesium oxide (MgO)	1.7	1.5

Appearance: Brown Liquid.

Solubility in water: Completely miscible with water.

Application rates: Apply at the rate of 2.5 - 5.0 litres per hectare in at least 200 litres of water per hectare as soon as there is sufficient leaf on the crop to absorb the spray.

Tank mixing compatibility: Solufeed Rare Plus is physically compatible with many of the pesticides, growth regulators and micronutrients that are in current usage.

Packaging: Normal packaging - 10 litre - see packaging guide options on pages 49-52.

Sulphur 800
Liquid sulphur fertilizer (SC) formulation

A suspension concentrate (SC) formulation containing 837g/l elemental sulphur (S).

Uses

For the prevention and correction of sulphur deficiencies in many agricultural and horticultural crops. Recommended for foliar application.

Benefits

Solufeed Sulphur 800 is a high quality stable formulation which disperses readily in the spray tank water for convenient trouble-free foliar application.

Analysis: 58% w/w (837 grams per litre) sulphur (S).

Appearance: Pale yellow opaque liquid.

Application rates: 5 – 10 litres per hectare.

Volume of water: Apply the product as a conventional foliar spray in 200 – 600 litres of water per hectare.

Compatibility: As with other sulphur formulations Solufeed Sulphur 800 has poor compatibility characteristics and care should be taken when considering tank mixtures.

Packaging: Normal packaging - 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Sweet K LIQUID
8:0:18+12(S) w/v

Vegetables, top fruit, root crops and many other crops.

Uses

Solufeed Sweet K is suitable for a very wide range of vegetable and fruit crops from Top Fruit (apples and pears etc) and soft fruit (tomatoes, melons etc) through to stone fruit (apricots, cherries) and a wide range of vegetables (cabbage, lettuce, broccoli etc) and including root crops (carrots, turnips, potatoes).

Recommended for foliar application.

Benefits

- Boosts potassium (K) for sweeter, firmer produce.
- Includes sulphur (S) an important secondary nutrient to balance nitrogen (N) use.
- Easy to use, clear liquid foliar feed provides nutrients directly into the plant.

Analysis

A liquid formulation containing:

	% w/v	% w/w
Nitrogen	8.6	7.0
Potassium (K_2O)	18.5	15.0
Sulphur (as S)	12.7	10.3

Appearance: Liquid

Directions for use: Apply at the rate of 5.0 - 10.0 litres per hectare in at least 200 litres of water per hectare as soon as there is sufficient leaf on the crop to absorb the spray.

Repeat at 14 – 21 day intervals whilst the crop is growing vigorously, but for flowering crops (such as apples) do not apply during the period whilst the crop is in flower. Early season sprays are of the greatest benefit to the crop.

Tank mixing compatibility: Solufeed Sweet K is physically compatible with many of the pesticides, growth regulators and micronutrients that are in current usage.

Packaging: Normal packaging - 1, 5, 10 litre - see packaging guide options on pages 49-52.

EC Fertilizer.

Tip Top Turbo
Balanced liquid foliar feed with stimulants

NPK foliar feed with amino acids, humic acids and seaweed extracts.

Uses

To stimulate growth in plants that are unable to obtain sufficient nutrition through their roots. Tip Top Turbo can be viewed as a "tonic" to help crops through periods of slow growth.

Benefits

- Easy to use liquid formulation.
- Rapid crop response following application.
- Gently, non-scorching formulation.
- Suitable for a very wide range of agricultural, horticultural and amenity crops.
- Nitrogen balanced formulation for effective uptake.
- Contains plant-origin amino acids for rapid uptake and assimilation.
- Contains Humic acids for improved utilization of nutrients.
- Contains seaweed extracts to stimulate growth.
- Balanced level of chelated micronutrients for efficient feeding and stable mixing.
- Mixes with most other agricultural chemicals.

Analysis	% w/v	% w/w
Total Nitrogen (N)	7.6	(6.3)
Of which NO_3-N	2.7	(2.3)
NH4-N	0.1	(0.1)
Ureic-N	4.8	(4.0)
P_2O_5	4.0	(3.3)
P	1.7	(1.4)
K_2O	8.8	(7.3)
K	7.3	(6.0)
MgO	0.9	(0.7)
Mg	0.5	(0.4)
B	0.010	(0.008)
Cu (EDTA)	0.004	(0.003)
Fe (EDTA)	0.072	(0.06)
Mn (EDTA)	0.023	(0.019)
Mo	0.002	(0.001)
Zn (EDTA)	0.030	(0.02)

Appearance: Translucent brown solution. Solubility in water: Completely miscible with water.

Application rates:
Tractor sprayer: 5 litres per hectare in 200 litres of water.
Knapsack sprayer: 50 ml per 10 litres of water spray to run off.

Packaging: Normal packaging - 5, 10, 20 litres - see packaging guide options on pages 49-52.

EC Fertilizer

Top Up
Foliar liquid fertilizer for root crops

Calcium (Ca) with nitrogen (N), magnesium (Mg) and zinc (Zn) for potatoes and other root crops.

Uses

A foliar feed for potatoes and other root crops to boost yield and quality.

Benefits

- Balanced blend of beneficial crop-specific nutrients.
- Convenient and stable liquid formulation.
- Zinc (Zn) chelated by EDTA for stability and efficient feeding.
- Formulated for improved uptake through the foliage.

Analysis	% w/v	% w/w
Nitrogen (N)	14.8	(11.0)
Magnesium as MgO	4.8	(3.6)
Magnesium as Mg	2.9	(2.1)
Calcium as CaO	6.0	(4.4)
Calcium as Ca	4.3	(3.2)
Zinc (Zn) EDTA	0.7	(0.5)

Appearance: Clear solution.

Solubility in water: Completely miscible with water.

Application rates: 5 litres per hectare in not less than 200 litres of water.

Packaging: Normal packaging - 5, 10, 20 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Zinc 700
Inorganic liquid fertilizer

Suspension concentrate (SC) formulation containing 700 g/l zinc (Zn).

Uses

To prevent and correct zinc deficiency in most agricultural, horticultural and ornamental crops. Recommended for foliar application.

Benefits

Solufeed Zn 700 is a high quality concentrated inorganic zinc fertilizer for safe, efficient and convenient treatment of zinc deficiency. Supplied as an easy to use liquid formulation.

Compatible with many crop protection materials enabling economic tank mixing for simultaneous application.

Analysis: A suspension concentrate formulation 560 g/l or 352 g/kg zinc. (700 g/l or 440 g/kg zinc).

Appearance: White liquid.

Miscibility: Fully miscible in water.

pH: ~9.5

If rain is imminent, spraying should be postponed. If rain falls within 4 hours of spraying, the crop should be re-sprayed 3 or 4 days later.

Application rates, specific
Crop: Winter Cereals
Rate (l/ha): 1.0
Timing: Apply when Spring re-growth commences. For severe deficiency an additional full rate application soon after tillering (ZCK 23).

Crop: Spring Cereals
Rate (l/ha): 1.0
Timing: Apply as soon as there is sufficient leaf area to absorb the spray.

Crop: Oilseed rape
Rate (l/ha): 1.0
Timing: Apply in the Autumn and then repeat at stem extension time the following Spring.

Crop: Sugar Beet
Rate (l/ha): 1.0
Timing: Conventional application as soon as there is sufficient leaf area to absorb the spray.

Crop: Potatoes
Rate (l/ha): 1.0
Timing: At tuber initiation or before the tops meet the rows. Repeat as necessary.

Crop: Peas
Rate (l/ha): 1.0
Timing: From 4 – 6 true leaf stage.

Crop: Top fruit
Rate (l/ha): 1.0
Timing: Apply after petal fall.

Water Volume
Arable crops: 200 - 600 litres per hectare
Fruit crops: 500 - 1000 litres per hectare

Small Scale Use: For example, using a knapsack sprayer. Prepare a 0.05-0.1% (0.5 -1.0 g/l) solution and apply so as to coat the leaves and stems with a thin film of moisture with little or no run-off.

Compatibility: Solufeed Zn 700 is compatible many other crop care chemicals.

Packaging: Normal packaging - 5, 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

AdBacLife
Natural organic soil conditioner

Uses

A natural organic soil conditioner specially enriched with 40% organic matter (derived from cocoa shells).

Ideal for incorporating into poor and inert soils to improve soil structure.

Also contains spores of bacilius subtilis.

Benefits

When added to soil AdBacLife improves soil conditions thereby improving uptake of nutrients, plant health and growth.

Typical analysis: Enriched organic soil improver, rich in organic matter.

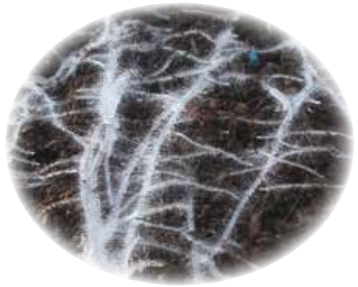
Bacillus subtilis sp : 109 gcfu/g.

40 % organic matter derived from meat and bone meal and cocoa shells.

Appearance: Brown crumb.

Application rate:
For fine turf: 10 - 15 kg per 100 m^2
For soil improvement: 10 - 15 kg per 100 m^2

Packaging: Normal packaging - 20kg - see packaging guide options on pages 49-52.



COMPOUND ORGANIC FERTILIZER
NPK 4:4:4+2MgO

Contains 35% organic matter.
Also available:
NPK 6:5:10+4MgO (35% organic matter)
NPK 7:7:10 (45% organic matter)
NPK 9:3:3 (50% organic matter)

Uses

Acceptable for restricted use in organic systems. Registered Soil Association Certified Input.

Organic matter derived from vegetable sources for fertilisation of crops including watercress, herbs and slow growing plants.

NOTE: Where used in certified organic systems please consult your certification body.

Benefits

Acceptable for restricted use in organic systems. This product is allowed for organic farming according to annex I of the EC regulation 834/2007 and 889/2008 concerning the biological production method.

Typical analysis: Compound organic fertilizer N:P:K 4:4:4+2 MgO.
4% w/w total nitrogen (N), of which 4% w/w organic bound N from soya meal and cocoa shells.

4% w/w phosphorus pentoxide (P_2O_5)

4% w/w potassium oxide (K_2O) soluble in water

2% w/w magnesium oxide (MgO)

35% w/w organic matter derived soya meal and cocoa shells

Appearance: Brown crumb.

Application rate:
For potting composts: 3.0 – 6.0 kg per cubic metre.
For sowing and cutting composts : 1.0 – 2.0 kg per cubic metre.
As a general fertilizer: 5 – 15 kg per 100 m^2.

Packaging: Normal packaging - 20kg - see packaging guide options on pages 49-52.

LIQUID Organic NPK
Liquid Range
Organic fertilizers

Soil Association (SA) approved organic fertilizers.

Uses

A range of liquid organic NPK fertilizers for use in amenity and in a wide range of agricultural and horticultural crops. Suitable for soil and foliar application and for application through fertigation (eg drip) systems.

Benefits

High quality, easy to use, liquid formulations. Analysis includes all major and minor plant nutrients.

Will not block filters, nozzles or emitters.

UK Soil Association approved.

Contain high levels of amino acids to give rapid response.

Product range:

8:3:3	High Nitrogen
4:2:8	High Potassium
6:2:6	Balanced feed

Total Solids: Varies according to analysis but typically 500 g/litre.

pH: 5.2 – 5.3

Appearance: Brown liquid.

Typical analysis w/v

Product: 6:2:6

Total nitrogen (g/l)	61
Phosphorus as P_2O_5 (g/l)	21
Potassium as K_20 (g/l)	60
Total solids (g/l)	475
pH (as is)	5.2

Product: 4:2:8

Total nitrogen (g/l)	40
Phosphorus as P2O5 (g/l)	20
Potassium as K20 (g/l)	90
Total solids (g/l)	505
pH (as is)	6.4

Product: 8:3:3

Total nitrogen (g/l)	82
Phosphorus as P_2O_5 (g/l)	31
Potassium as K_20 (g/l)	32
Total solids (g/l)	589
pH (as is)	5.2

Typical analysis of other nutrients (dependent on the product chosen. Note: these are natural products and the actual amounts can vary from the typical analysis shown):

Calcium (Ca)	250 – 400	mg/litre
Magnesium (Mg)	650 – 850	mg/litre
Sulphur (S)	0.3 – 0.4	mg/litre
Sodium (Na)	12 – 17	mg/litre
Boron (B)	6 – 8	mg/litre
Copper (Cu)	2	mg/litre
Iron (Fe)	100 – 120	mg/litre
Manganese (Mn)	12 – 17	mg/litre
Zinc (Zn)	7 – 12	mg/litre

Application: Mix with a minimum of 10 litres of water for every 1 litre of Solufeed Organic Liquid Plant Feed and apply at desired rate. Can be mixed with water-soluble bacterial products and natural wetting agents.

Foliar Application: 5.0 litres in 150 litres of water.

Solufeed Organic Liquid Plant Feed contains ammoniacal nitrogen, allowing it to be used as an excellent foliar feed. Apply after the first true leaves appear, repeating every 14 days for 3 – 5 cycles. Rates are a guide only.

Turf: 2.0 – 4.0 litres per hectare in 200 litres of water MINIMUM.

Glasshouse crops: Use as a 1% solution through drip irrigation.

Solufeed Liquid Organic fertilizers have been specially formulated for drip irrigation and will not block in-line filters. Not for use with sand filters. For application to top-up existing nutrient regimes. Ideal for use in supplementary feeding of greenhouse crops by adding to the nutrient input of compost already incorporated into the soil. The nutrients are quickly available to the plants and the sugars contained within the organic fertilizer increase the action of soil microbes on existing soil nutrients, further aiding nutrient release.

NB: All organic fertilizers have unstable EC levels and as such it is not recommended to hold stock solutions longer than 2 days.

Field Crops: 25 – 50 litres in 100 – 200 litres of water.

Can be applied to field crops such as salads, brassicas and potatoes. It contains a combination of fast and slow release nitrogen lasting up to 3 weeks. Apply to the crop to maintain adequate available soil nutrient status.

Packaging: Normal packaging - 20, 1000 litres - see packaging guide options on pages 49-52.

MicroLife 3:2:3
Soil improver

Description
Microlife is an organic based fertilizer containing naturally occuring, beneficial micro-organisms which improves the health of soils and other growing media thereby promoting optimum plant performance. Also contains useful levels of NPK fertilizer to improve fertility.

Particularly useful where soils have been overworked and lost their fertility and natural flora and fauna balance. Microlife contains spores of natural bacillus subtilis and trichoderma hazianum which will regenerate soil health and help prevent soil-borne diseases such as pythium, fusarium and phytophthora (the damping-off disease 'trio').

Widely used by professional growers and keen flower and vegetable competition gardeners to help get award winning results.

Typical analysis: Enriched organic soil improver, rich in organic matter containing bacteria and trichoderma.

3% total nitrogen (N), of which 3% organic nitrogen from meat and bonemeal and cocoa shells

2% phosphorus pentoxide (P_2O_5)

3% potassium oxide (K_2O) soluble in water

40% organic matter derived from meat and bone meal and cocoa shells

Bacillus subtilis sp 106 germes/g

Trichoderma harzianum 109 cfu/g

Appearance: Brown regular crumb.

Fine turf lawns: Apply evenly 1 -1.5 kg of Microlife per 10 m^2 lawn surface.

General soil use: Apply 1.0 – 1.5 kg of Microlife per 10 m^2 and incorporate into the top 15 – 20 cm.

Compost addition: Evenly mix 30 – 50 grams of Microlife per 10 litres of compost. When used in this way the amount of base fertilizer may be reduced by as much as 50%.

Tree/Shrub planting: Evenly mix 100 grams of Microlife per 10 litres of planting hole soil and back-fill as normal.

Packaging: Normal packaging - 5kg and 20kg - see packaging guide options on pages 49-52.

Mineral Organic Fertilizers
Compound organic fertilizer with mineral organic nutrients

Uses

Golf greens, sports turf and espace vert.

Benefits

Rapid response from mineral component. Extended release from organic component.

Typical analysis options:
0:0:32 (15% organic matter)

5:2:12+3MgO+seaweed (25% organic matter)

5:25:0 (26% organic matter)

7:5:8+2MgO (25% organic matter)

15:3:8+3MgO (37% organic matter)

Appearance: Brown fine grade.

Application rate: Varies.

Packaging: Normal packaging 20kg - see packaging guide options on pages 49-52.

Organic Date Palm Fertilizer
Compound organic fertilizer

6:5:10+4MgO organic fertilizer.

Uses

To encourage establishment, development and fruiting of date palm and many other crops.

Benefits

Solufeed Organic Date Palm fertilizer releases nutrients slowly to provide a prolonged nutrient supply. All nutrients are fully available to the plant. The nutrients are balanced to meet the needs of the crop. The organic component helps with water retention around the roots and degrades to form beneficial humus in the soil which encourages beneficial microbial activity.

This product is allowed for organic farming according to annex I of the EC-regulation 834/2007 and 889/2008 concerning the biological production method.

Typical analysis:
Compound organic fertilizer NPK 6:5:10+4 MgO

6% w/w total nitrogen (N), of which 6% w/w Organic bound N from meat and bone meal, bone meal and cocoa shells

5% w/w Phosphorus pentoxide (P_2O_5)

10% w/w Potassium oxide (K_2O) soluble in water

4% w/w Magnesium oxide (MgO)

45% w/w Organic matter derived from meat and bone meal, bone meal and cocoa shells

Appearance: Brown fine grade or crumb.

Application rates: 2 kg per tree. Repeat every 12 weeks during the growing season.

Directions: Base dressing: Mix 2 kg into the backfill soil prior to planting. Top dressing: Lightly work into the top 150mm of soil around the base of the tree beneath the leaf canopy in the area that is irrigated. Water after application.

Packaging: Normal packaging - 20kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Reclaim MINERAL/ ORGANIC LAWN FERTILIZER 6:2:20+3MgO+ Bacteria

Contains 25% organic matter.

Description
Reclaim is a specially designed lawn fertilizer containing mineral and organic forms of nitrogen for instant and long lasting effect. A high potassium content together with magnesium ensures strong and dense grass with good colour. Easily available phosphorus encourages strong root development.

Reclaim also contains beneficial, naturally occurring bacteria which discourage moss growth and reduces thatch formation; in many cases the need to scarify is eliminated.

Typical analysis: 6:2:20(+3MgO).

Compound organic-mineral fertilizer N:P:K containing magnesium and bacteria.

6 % total nitrogen (N), of which 2.4% organic nitrogen derived from meat and bone meal and cocoa shells, 3.4% urea nitrogen

2 % phosphorus pentoxide (P_2O_5)

20 % potassium oxide (K_2O) soluble in water

3 % magnesium oxide (MgO)

25 % organic matter derived from meat and bonemeal, cocoa shells, vinasses and organic seaweed

Bacillus sp 106 per gram

Appearance: Brown crumb.

Application rate: For all lawns: 1.0 - 1.5 kg per 10 m^2.

Timing: Apply in Spring and Autumn for optimal results.

Application: Ensure that the product is applied as evenly as possible across the lawn using a suitably calibrated mechanical spreader or the traditional "cane and string" method.

Packaging: Normal packaging - 10kg - see packaging guide options on pages 49-52.

The Garlic Barrier™ Range of Products

Growing Naturally, as nature intended

Garlic (Allium sativum) is a close relative of other members of the Allium genus including onions, chives and leeks. It is believed to be a native of central Asia but garlic is now cultivated throughout the world mainly for use in cooking. It has a unique flavour and a number of health promoting properties. Folklore attributes garlic with good luck and protection against evil. The smell was said to ward off werewolves, warlocks and - of course – vampires!

Man's association with garlic goes back some 7,000 years and there is much anecdotal and scientifically proven evidence of the plant's beneficial effects in human, animal and plant health. Hippocrates reported its use for controlling parasites and curing respiratory problems and the bactericidal properties were discovered by Lois Pasteur in 1858. Activity against fungal diseases of plants such as mildews has also been demonstrated.

Garlic (and other plants) has for many years been used as a companion crop for cultivated plants to help them withstand attack by pests such as aphids and caterpillars. This use exploits the natural biologically active defence compounds produced by plants.

The principal biologically active compound produced by garlic is allicin which was discovered in 1944. Allicin is a sulphur containing (thiosulphonate) compound with powerful antioxidant and other properties. Undoubtedly allicin synthesis has evolved in garlic as the plants first line of defence against pest attack.

This knowledge provided the platform on which the Aston range of products were created by Hugh Struth the founder of Aston Horticulture Ltd who sadly passed away in 2014. Hugh spent three years in Research and Development of garlic and other natural products before bringing his first garlic product to the market in 2001.

Anthyllis™

For general plant health. Encourages resistance to botrytis.

Uses

Anthyllis™ is a cost effective method of growing crops in a sustainable way. Containing high levels of allicin, which has anti-bacterial and anti-fungal properties; it has a systemic and prophylactic action. Also contains 30 other sulphur based nutrients and selenium that will stimulate plant growth.

Use to stimulate the natural ability of plants to resist pests and diseases, and as a growth supplement in many crops such as lettuce, tomatoes, cucumbers, strawberries, brassicas etc.

Suitable for use in organic crop production. Anthyllis™ has a very low content of solids, making it ideal for spraying, drip irrigation or for use in ULV systems. This product is water based, standardised, concentrated and biodegradable.

When used from an early stage in the crop, it helps produce good, clean, healthy root systems. Garlic creates a barrier from most nematodes and other pests.

Applied in a programme of treatments, Anthyllis™ helps to resist the adverse effects of stress due to drought and unbalanced nutrition. It also assists in optimising the effects of fertilization.

Benefits

- Food grade natural extract of garlic.
- No crop restrictions.
- No chemical setback.
- No taints, no flavours.
- Odourless soon after application.
- Compatible with IPM systems.
- Biodegradable.
- Safe and simple to use and kind to the environment.

Composition derived from garlic extract

Using

For optimal results Anthyllis™ should be used every 7 to 10 days from early in the growing season, up to harvest. The exact quantity depends on crop type, growing stage, environmental conditions and desired result.

Anthyllis™ is often used in a programme of treatments with Garshield™, which is suitable for use in glasshouse and field crops. Rain fast in one hour in summer and two hours in winter.

Dilute product 1:100 in water and apply as a fine spray (covering all parts of the plant, at air temperature not lower than 10°C) or apply through drip irrigation/fertigation or ULV systems.

During use the characteristic smell of garlic may become evident, however, treated areas will become odourless soon after minutes.

Packaging

Normal packaging 1 and 5 litre containers.

Aston Turf

Encourages resistance to insect pests and diseases. The natural way to healthy, resilient turf.

Uses

Aston Turf is suitable for use on all fine turf areas, general amenity areas including parks, playing fields, grassland and conservation areas.

Regular use of Aston Turf assists grass to resist and recover from most of the common fungal diseases such as Anthracnose, Brown Patch, Fusarium, Fairy Ring, Dollar Spot and Red Thread. It also aids the turf's, natural resistance to insects such as crane fly, frit fry, and aids recovery from damage caused by nematodes.

Benefits

- Low content of solids, making it ideal for spraying systems. Water based.
- Highly concentrated and biodegradable.

Composition

Derived from garlic extract.

Using Aston Turf

For best results Aston Turf should be used regularly every 7 -14 days throughout the growing season at a rate of 5-12 litres per hectare at air temperatures not lower than 10°C.

During use the characteristic smell of garlic may become evident, however, treated areas will become odourless within minutes.

Packaging

Normal packaging 1 and 5 litre containers.

Garberry™ 2

A natural plant invigorator that encourages resistance to aphids and spider mites etc.

Uses

Garberry™ 2 is a concentrated food grade extract of garlic supplemented with natural plant derived additives to create a plant invigorator, a prophylactic that encourages resistance to aphids and spider mite.

A foliar treatment for glasshouse and other crops.

Reduces or eliminates pesticide residues in end produce. For use on peppers, cucumbers, lettuce, tomatoes and field grown crops.

Garberry™ 2 is a cost effective method of growing crops in a sustainable way. Best applied as a foliar spray, Promotes vigour and stimulates the plant's natural processes to produce balanced, healthy growth.

Regular use has shown that plants resist bacterial, fungal and viral diseases. Garlic helps plants to resist the adverse effects of stress and damage caused by nematodes.

Benefits

- Regular use will assist crops to produce good clean, healthy root systems.
- Systemic.
- Food grade extract of garlic, supplemented with natural plant derived additives.
- Suitable for use on most crops.
- No chemical setback.
- No taints, no flavours.
- Odourless within minutes of application.
- No harvest interval.
- Biodegradable.
- Safe and easy to use, kind to the environment.
- Suitable for use in organic crop production.

Composition
Derived from garlic extract.

Using Garberry™ 2
Dilute 1:100 in water, and apply as a high volume spray covering all parts of the plant, normally 500 litres/ha for edible and ornamental crops, increasing to 1000 - 2000 litres/ha for trained crops of cucumbers, peppers and tomatoes in glasshouses or other protected structures. Spray applications should be repeated at 7 day intervals or more often if necessary, at air temperatures not lower than 10°C. In some circumstances, a more concentrated spray at a dilution of 1:50 may be beneficial.

Shake container well and agitate while mixing.

During use the characteristic smell of garlic may become evident, however, treated areas will become odourless within minutes.

Packaging
Normal packaging 1 and 5 litre containers.

Garshield™

Encourages resistance to mildew and botrytis.

Uses

Garshield™ is a concentrated food grade extract of garlic supplemented with natural plant derived additives.

Used as a foliar applied solution, Garshield™ promotes vigour and stimulates the plant's natural processes to produce balanced healthy growth and encourages resistance to mildew and botrytis.

Regular use has shown that plants resist bacterial, fungal and viral diseases. Garshield™ also assists plants to resist the adverse effects of stress and damage caused by nematodes.

Regular use of Garshield™ will assist crops to produce good, clean healthy root systems. When used regularly in a programme of treatments, it will stimulate growth and promote healthy vigorous plants much more resistant to bacterial and fungal diseases.

Garshield™ reduces the reliance on conventional pesticides and therefore equates to a reduction of elimination of pesticide residues in the resultant food.

Use on tomatoes, cucumbers, lettuce, strawberries and field grown crops.

Benefits

- Food grade extract of garlic supplemented with natural plant derived nutrients.
- Systemic action.
- Suitable for use on most crops.
- No chemical setback.
- No taints, no flavours.
- Odourless soon after application.
- Biodegradable.
- Safe and simple to use as well as being kind to the environment.
- Suitable in organic crop production.

Composition
Derived from garlic extract.

Using Garshield™
Dilute 1:100 in water and apply as a fine spray covering all parts of the plant, normally 500 litres/hectare for edible and ornamental crops, increasing to 1000-2000 litres/hectare for trained crops of cucumbers, peppers and tomatoes in glasshouses or other protected structures. Alternatively Garshield™ can be applied by fogging.

Treatment should be repeated at 7 to 10 day intervals, at air temperatures not lower than 10°C.

For sprinkler or drip irrigation to soil, substrate or through hydroponic systems, use Anthyllis™.

Shake container well and agitate while mixing.

During use the characteristic smell of garlic may become evident, however, treated areas will become odourless within minutes.

Packaging
Normal packaging 1 and 5 litre containers.

Garlic Wonder™

A range of diluted and appropriately packaged products suitable for home and garden use, including

Garlic Wonder™ Ready to use Spray
Stimulates growth and make good healthy root systems, giving vigorous plants with far greater resistance to attack from insect pests and fungal diseases.

Garlic Wonder™ Concentrate
Refill pack for the above ready to use spray.

Garlic Wonder™ Fruit Tree Care
For clean healthy fruit trees & bushes.

Garlic Wonder™ Granular Plant Biostimulant
A natural barrier against slugs and snails.

Garlic Wonder™ Rabitof
A natural barrier that encourages resistance to rabbits, deer, crows, pigeons and geese.

During use the characteristic smell of garlic may become evident, however, treated areas will become odourless within minutes.

Garvine™

A plant invigorator and foliar feed for grapevines that encourages resistance to mildew and botrytis.

Uses

Garvine™ is a high quality food grade natural extract of garlic, rich in selenium and sulphur concentrated and biodegradable. For use on grapevines.

Applied as a regular treatment, Garvine™ will stimulate growth and plant vigour, encourage resistance to botrytis and assist in maximizing the effects of fertilization, thus helping to optimize plant health and also resist the effects of stress and repair damage caused by nematodes.

Regular use of Garvine™ will assist vines to produce good clean healthy root systems. When used regularly in a programme of treatments, it will stimulate growth and promote healthy vigorous plants much more resistant to bacterial and fungal diseases.

Garvine™ reduces the reliance on conventional pesticides and therefore provides a reduction or elimination of pesticide residues in the resultant product.

Benefits

- Designed for grapevines.
- Food grade extract of garlic, supplemented with natural plant derived nutrients.
- No chemical setback.
- No taints, no flavours.
- Odourless within minutes of application.
- No harvest interval.
- Biodegradable.
- Safe to use, kind to the environment.
- Suitable for use in organic crop production.

Composition
Derived from garlic extract.

Using Garvine™
Garvine™ should be used every 7 - 10 days at a rate of 5 - 8 litres per hectare. Shake container well and agitate while mixing.

Dilute 1:100 in water and apply as a fine spray covering all parts of the vine, at air temperatures not lower than 10°C.

Rain fast in one hour in summer and two hours in winter.

During use the characteristic smell of garlic may be evident, however, treated areas and plants will soon become odourless.

Packaging
Normal packaging 1 and 5 litre containers.

Rabitof™

Encourages resistance to rabbits, deer, pigeons, geese etc.

Uses

An effective natural barrier that encourages resistance to rabbits, deer, pigeons and geese etc. A cost effective method of treating crops in a sustainable way.

Rabitof™ is ideal for use in agricultural and horticultural crops, golf course greens, nursery stock and general amenity areas including parks and gardens, playing fields and conservation areas.

Due to its high levels of sulphur and selenium, Rabitof™ stimulates growth, vigour and tillering and also helps in the resistance caused by adverse effects of stress.

Benefits

- Food grade natural extract of garlic and gustatory juices.
- No crop restrictions.
- No chemical setback.
- No taints, no flavours.
- Biodegradable.
- Safe to use, kind to the environment.

Composition
Derived from garlic extract.

Using Rabitof™
Rabitof™ should be used regularly every 7-14 days. Ideally apply late afternoon when plants are more receptive. During use the characteristic smell of garlic will be evident; however, treated areas and plants will soon become odourless.

Dilute Rabitof™ 1:100 in water and apply 500 – 700 litres per hectare as a fine spray covering all parts of the plant (rate depending on foliage density and plant size).

Rain fast in 1 hour in summer and 2 hours in winter.

During use the characteristic smell of garlic may become evident, however, treated areas will become odourless within minutes.

Packaging
Normal packaging 1 and 5 litre containers.

Tree Wash

For clean, healthy fruit trees and bushes.

Uses

For use on fruit trees and bushes to help grow healthy, clean fruit and maximize yields.

Tree Wash is a food grade extract of garlic with natural plant derived ingredients. It contains high levels of allicin, which has anti-bacterial and anti-fungal properties. Contains more than 30 other sulphur-based nutrients and selenium that will stimulate growth.

When Tree Wash is used in a programme of treatments from early in the season, it promotes healthy trees that bear clean fruit, free from most pests and diseases.

Tree Wash helps to resist the adverse effects of stress due to drought. It will give cleaner trees with greater resistance to sap-sucking pests, producing clean fruit with longer storage life.

Benefits

- Food grade natural extract of garlic and gustatory juices.
- No crop restrictions.
- No chemical setback.
- No harvest interval.
- No taints, no flavours.
- Odourless soon after application.
- Biodegradable.
- Safe to use, kind to the environment.

Composition
Derived from garlic extract.

Using Tree Wash
For best results Tree Wash should be used twice during the winter season, followed by spraying in a programme of treatments throughout the growing season depending on variety and uses.

Dilute 1:100 in water and apply as a fine spray to all parts of the tree every 7 to 10 days at air temperatures not lower than 10°C throughout the growing season normally 500 litres per hectare. Rain fast in one hour in summer and two hours in winter.

During use the characteristic smell of garlic may be evident; however, treated areas and plants will soon become odourless.

Packaging
Normal packaging 1 and 5 litre containers.

Compost base fertilizer
For inclusion in growing media

A range of fertilizers for inclusion in compost, coir and other growing media.

Uses

To provide a base level of nutrition and pH control in growing media to enable plants to establish and grow away vigorously after planting.

Benefits

- Provides initial vigour and health to newly established plants.
- Controls pH in the growing media.
- Nutrients in a form which will be safe and effective.
- Balanced and broad spectrum nutrition for plant health.
- Formulations to provide short or longer term nutrient resources in the growing media.
- Solufeed quality standards for a dependable formulation accurately made with quality raw materials.

Analysis % w/w:
Various including:
12:14:24+3MgO+TE
14:11:23+3MgO+TE
14:16:18+1MgO+TE

Options: Long life or standard. Ericaceous or standard. Coir or Peat.

Appearance: Blended crystalline powder.

Application rates: Typically 1kg per cubic metre of compost.

Packaging: Normal packaging - 20kg - see packaging guide options on pages 49-52.

EC Fertilizer.

Easy-Feed
Everything in one liquid fertilizer

Ready to use complete liquid fertilizer WITH calcium.

Uses

A complete liquid fertilizer solution containing a balanced mix of all essential nutrients for a healthy crop growth including calcium. Just dilute and feed.

Suitable for a wide range of crops and growing media including hydroponic production. Solufeed Easy-Feed may be applied to the foliage or the roots.

Benefits

- "Everything the plant needs in one pot…"
- Complete, balanced easy to use liquid.
- High quality nutrients.
- Contains calcium.

Analysis w/v:

Total Nitrogen (N)	4.90%	
Ammoniacal Nitrogen (NH_4)	0.40%	
Nitric Nitrogen (NO_3)	4.50%	
Phosphoric Pentoxide (P_2O_5) soluble in water	1.70%	[P: 0.74%]
Potassium Oxide (K_2O) soluble in water	4.00%	[K: 3.30%]
Magnesium oxide (MgO) soluble in water	2.10%	[Mg: 1.32%]
Calcium oxide (CaO) soluble in water	3.40%	[Ca: 2.43%]
Water soluble Boron (B)	0.004%	
Water soluble Copper (Cu) chelated by EDTA	0.004%	
Water soluble Iron (Fe) chelated by DTPA	0.030%	
Water soluble Manganese (Mn) chelated by EDTA	0.017%	
Water soluble Molybdenum (Mo)	0.002%	
Water soluble Zinc (Zn) chelated by EDTA	0.017%	

Specific gravity: 1.2

Appearance: Clear liquid.

Directions for use: Dilute Solufeed Easy-Feed with water at the rate of 1:200 (5 ml or one teaspoon of Easy-Feed in one litre of water) and irrigate as required. This will provide a solution with the following analysis:

Nutrient	mg/l(ppm) diluted 1:200
Total N	245
NO_3-N	225
NH_4-N	20
P_2O_5	85
K_2O	200
MgO	105
CaO	170
B	0.2
Cu	0.2
Fe	1.5
Mn	0.85
Mo	0.1
Zn	0.85
EC	1.8µS

Compatibility: Use alone. Do not mix with other products.

This product is not classified as hazardous for transport.

Packaging: Normal packaging - 1, 2.5, 5, 10, 20 and 1000 litres - see packaging guide options on pages 49-52.

Fulvic Bio
Natural Soil Conditioner

Fulvic acid readily form complexes, also known as fulvic colloids with elements such as iron, manganese and zinc and help solubilise phosphorus in the soil. Because, and unlike other humic equivalents, fulvic colloids are able to pass through biological membranes; this in turn increases availability and subsequent metabolism of nutrients by plants.

Uses

To rejuvenate tired, denatured and depleted soils in a natural, environmentally benign way.

To help replicate healthy soil properties in artificial growing media such as peat/coir-based composts.

Can be used in sequence with other amendment products to improve soils and other growing media still further.

Benefits

Restores and improves normal soil biochemistry.

Increases availability and uptake of essential mineral nutrients.

A natural product recovered from the processing of drinking water.

Easy to use liquid formulation.

Composition

Component	Value (~)
Fulvic acid	17 % w/w
Humic acid	3 % w/w
Organic matter	220 g/l
pH	8.34

Using Fulvic Bio
Soil application
Fulvic Bio should be applied at a rate of 5.0 mls per square metre in sufficient water to give good and even coverage.

For example add 50 mls of product to a 5 litre watering can full of water, mix and apply through a fine rose of dibbler bar to 10 square meters of soil.

Apply Fulvic Bio when the soil is being prepared for planting, and repeat at least twice during the growing season.

Application to artificial growing media.
(eg. Peat and non-peat based composts, grow bags etc)

Mix Fulvic Bio into the medium at a rate of 50 mls per cubic metre. The product may be diluted in a convenient volume of water to facilitate easier mixing.

Packaging: 500 ml bottles

Hanging Basket Feed
Concentrated liquid solution fertilizer

Balanced liquid fertilizer specially for feeding hanging baskets.

Uses

To provide balanced nutrition to all types of plants growing in hanging baskets. Hanging baskets typically contain a lightweight inert growing media (peat and/or green waste compost) with no inherent reserves of nutrients. Watering is often infrequent and the baskets can repeatedly cycle from very wet to very dry. With baskets being expensive to produce and maintain, and being very visible, it is especially important that they are fertilized well to keep them looking healthy and attractive throughout their life.

Benefits

Balanced N:P:K feed with 2:1:4 ratio to maintain healthy compact growth and maximize flower life. Balance of nitrogen types to give fast response and longer lasting effects.

Iron (Fe) chelated by the super effective EDDHA chelate to combat yellowing associated with iron chlorosis, even in hard water areas.

Robust levels of all 6 essential trace elements in chelated form for efficient feeding and healthy growth.

Contains magnesium (Mg) to combat "vein like" appearance of leaves associated with magnesium deficiency.

Contains a sophisticated specialist horticultural wetter to ensure rapid soaking of the growing media.

Concentrated feed that is easy to use, handle and store.

Analysis (w/v):

Total Nitrogen (N)		6.0%
Of which	NO_3-N	3.0%
	NH_4-N	1.0%
	Ureic-N	2.0%
Phosphorus (P) soluble in water as P_2O_5		2.3%
Potassium (K) as K_2O		8.0%
Magnesium (Mg)as MgO		3.0%
Boron (B) soluble in water		0.016%
Copper (Cu) chelated by EDTA		0.004%
Iron (Fe) chelated by EDDHA		0.080%
Manganese (Mn) chelated by EDTA		0.040%
Molybdenum (Mo) soluble in water		0.0004%
Zinc (Zn) chelated by EDTA		0.040%

Specific gravity: 1.22

Appearance: Clear blue aqueous solution. Solubility in water: Fully miscible with water.

Application rates:
Low rate: 1 litre in 1000 litres of irrigation water. Use as a supplement to controlled release fertilizer contained in the hanging basket.

Half rate: 1 litre in 400 litres of irrigation water.
Use to improve the longevity and improve health of the plants in the hanging basket.
Full rate: 1 litre in 200 litres of irrigation water.
Use to provide all the nutrition for the growth and maintenance of healthy plants.

Directions: Apply in the irrigation water with every watering.

Packaging: Normal packaging - 1, 5, 10, 20, 200 and 1000 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Liquid NPK
Concentrated solution fertilizers

A wide range of liquid fertilizers that are quick and easy to measure and use.

Uses

Formulations to suit every type of agricultural and horticultural crop. Also for amenity and "home and garden" use.
Suitable for foliar or root application.

Benefits

- Fully and instantly miscible with water
- Clear stable solutions that are easy to measure, store and use
- Immediately available, fully-soluble nutrients that the plant can use instantly
- Contain a balanced blend of chelated trace elements
- pH stabilised for efficient feeding
- The most convenient formulation to use.

Product range – examples (w/v)...

N	P_2O_5	K_2O
5	10	20
5	38	15
6	4	14
6	6	33
6	41	0
7	5	6
7	10	5
8	5	5
8	2	6
9	18	9
10	10	10
10	8	0
14	10	16
18	4	8
18	0	11
18	24	4
18	3	6
18	0	6
20	7	7
34	0	0
12	0	50

Note that Magnesium (Mg) and Trace Elements (TE) can usually be included if required.

Other analysis or variants of these products (eg slow release nitrogen) may be available on request.

Application rates: Typically 1 – 10 litres per hectare depending on the crop and situation

Packaging: Normal packaging - 1, 2.5, 5, 10, 20, 200 and 1000 litres - see packaging guide options on pages 49-52.

NutriTurf
Liquid N:P:K for turf with slow release N

Concentrated liquid 18:3:6 NPK + chelated iron (Fe) with 30% of the N in slow release form.

Uses

To provide steady balanced nutrition to amenity turf such as golf courses, sports fields and amenity green space.

Benefits

Solufeed NutriTurf is a balanced feed for turf grass, providing a slow and steady release of nitrogen for up to 6 weeks, with minimal potential to scorch.

The addition of iron chelated by EDTA ensures a rapid and long lasting greening of the sward without the problem of long lasting staining to hard surfaces such as paths and roads.

Analysis (% w/v):

Total Nitrogen (N)	18.00
Of which Slow release N	5.30
Ureic N	12.70
P_2O_5 soluble in water	3.00
K_2O	6.00
Fe chelated by EDTA	0.10

Specific gravity: 1.2

Appearance: Free flowing liquid.

Solubility in water: Fully miscible in water.

Application rates: 10 - 15 litres per 1,000 m^2.

Directions: Apply using a conventional hydraulic sprayer in 100 – 200 litres of water per 1,000 m2 (use higher water volume with higher application rates).

Avoid spraying in hot sunny conditions

Packaging: Normal packaging - 10 litres - see packaging guide options on pages 49-52.

EC Fertilizer.

Sea-King CM
Crop Quality Enhancer

Calcium and Magnesium with organic fulvic acid and organic ascopyllum seaweed extract.

Uses

A nutritional supplement to boost crop quality and plant health.

Benefits

- Strengthens cell walls to provide firmer produce with a longer shelf life.
- Develops deep green foliage to maximize photosynthesis.
- Allows roots to absorb nutrients more efficiently.
- Feeds beneficial bacteria in the root zone that are working to protect and feed the plant.
- A natural biostimulant to maximize plant development and harvest yield.

Analysis

	%w/w	%w/v
Nitrogen (N)	7.0	9.5
Magnesium as MgO	3.7	5.0
Calcium as CaO	8.3	11.2
Natural fulvic acids	1.4	2.0
Ascophyllum extract	3.6	5.0

Appearance: Brown opaque free flowing liquid

Application Rates: Tractor Sprayer: 5.0 – 10 litres per hectare in sufficient water to ensure good coveage
Knapsack Sprayer: 50 ml per 10 litres of spray solution
Fertigaton: 1 litre per 1,000 of irrigation water

Packaging: Normal packaging -1 litre & 10 litre – see packaging guide options on pages 49-52.

Solusorb A
Water retention aid

Superabsorbent polymer for improved water management in many plant growing systems.

Uses

Solusorb A is a synthetic superabsorbent polymer designed to improve the water retaining properties of many types of growing media with applications in the agriculture, horticulture, forestry and amenity sectors.

Also suitable for use as transplanting aid to reduce "transplant shock" and its effects.

Benefits

Solusorb A is able to absorb large amounts of water and, when mixed with a growing medium, increases its water holding capacity. In turn, a steady supply of water is provided to plant roots thereby encouraging optimum plant growth. In certain circumstances, such as hanging baskets, water use and watering frequency can be reduced.

The hydration/dehydration (absorbing and releasing water) cycles cause physical movement in the growing medium helping to maintain an open, aerated structure and promoting healthy conditions for root growth.

Potassium-based formulation which does not increase the sodium burden.

Analysis: 100 % cross-linked copolymer of acrylamide and potassium acrylate.

Ionicity: Anionic

Appearance: White granule.

Solubility in water: Insoluble.

Maximum water absorbance:
300 g/g deionised water
150 g/g water with 1,000 ppm NaCl
150 – 200 g/g within growing media
Approximately 60% maximum hydration is achieved after 1 hour.

Stability of hydrated gel: 3 – 5 years depending on conditions.

Directions for use

Growing media: Carefully mix 1 – 3 kg per m^3 (1 -3 g per litre) depending on the natural water retentiveness of the medium.

Transplanting aid: Prepare a moderately adhesive gel by adding 1 kg of Solusorb A to 150 – 350 litres of water, depending on quality. Use this gel as a protective root dip immediately before planting out.

Packaging: Normal packaging - 25kg - see packaging guide options on pages 49-52.

Signal
Soluble Silicon

A water soluble silicon (Si) source with phosphorus (P) and potassium (K) in a biological active liquid formulation.

Uses

Soils are rich in silicon but only in an insoluble form. Solufeed Signal provides the plant with silicon in a soluble form that can be readily absorbed and used by the plant.

Benefits

Silicon improves the structural strength of the plant and helps the plant to combat stress and disease. This results in improved plant health and vigour.

Analysis	w/v %
Silcon dioxide (SiO_2)	2.0
Total nitrogen (N)	13.4
Ureic nitrogen (N)	13.4
Potassium Oxide (K_2O)	3.2 (K:2.6%)

Appearance: Free flowing brown liquid

Solubility in water: Fully miscible with water. S.G. = 1.4

Application rates:

Foliar, via knapsack sprayer: 25ml per 20 litres of water and spray to run-off.

Via irrigation system: Apply at the rate of 1 litre in 50,000 litres of irrigation water.

Directions: Start foliar applications early in the life of the crop as soon as there is sufficient foliage to absorb the spray. Repeat at 2 week intervals up to harvest. Apply alone, not in tank mix.

Note use of Signal will reduce soil/irrigation water acidity.

Packaging: Normal packaging - 2.5, 10, 1000 litres - see packaging guide options on pages 49-52.

Super Pond Clarifier

Safe enhanced biological control of algae in ponds and reservoirs.

Uses

To control algae in ponds and reservoirs. Also has a useful effect on blanket weed.

Totally harmless in use to humans, fish, animals, birds, amphibians and plants.

Benefits

7-way control to free your pond from blanket weed and algae:

- Works immediately to remove phosphates, the essential food source for blanket weed and algae.
- Uses beneficial bacteria and enzymes to remove nitrates and all nitrogen compounds.
- Stimulates blanket weed and algae to rapid growth which cannot be maintained due to lack of nutrients resulting in starvation and death.
- Uses super bacteria and enzymes to out-compete algae and blanket weed for nutrients, preventing re-growth.
- Digests organic matter to stop new nutrients forming, which clarifies the water.
- Uses essential trace elements, vitamins and bio stimulants to maximise the performance of beneficial bacteria and organisms in the water.
- Prevents new nutrients developing from fish faeces and organic matter.

Super Pond Clarifier is beneficial for fish and all living things in your pond because it is a biological treatment and will quickly improve their environment. It will also condition the water quickly in a new pond for plants and fish.

Analysis: A mix of selected strains of beneficial bacteria, with vitamins, trace elements and bio stimulants.

Appearance: Blended powder.

Solubility in water: Fully water soluble.

Application rates: 1 kg treats 7000 litres (approximately 1500 gallons).

Directions: It is best to use at the beginning of the season once the water temperature has reached 10°C and before blanket weed and algae have appeared.

If you have fish, sprinkle on a dose of 20 - 30 grams (4 – 6 heaped teaspoons) per 700 litres the amount of algae/blanket weed present), across the pond surface every other day for 9 days (5 doses in all).

If you don't have fish present, then 100 – 150 grams per 700 litres may be scattered over the pond in one go.

If you already have blanket weed and scum, remove as much as you can with a net or other means, then feed twice the dose every other day for 9 days. After dosing the pond, cloudiness may be observed for a few days. This is harmless and will soon clear.

Packaging: Normal packaging - 1kg - see packaging guide options on pages 49-52.

Packaging for Solid Products
(powders, granules etc)

Description: Aluminium/polythene laminate FFS.
Net weight: 1 kg or 5 kg.
Packs per outer: 20 or 25. 4 or 5.
Outers per pallet: 24.

Description: Printed carton.
Net weight: 1 kg.
Packs per outer: 10.
Outers per pallet: 32.

Description: Printed carton.
Net weight: 5 kg.
Packs per pallet: 90.

Description: Plastic pail.
Net weight: 10 kg.
Packs per pallet: 75.

A range of high quality, fit for purpose packaging materials to complement Solufeed products.
All are well proven and appropriate to the intended market needs and conditions.

Description: Printed PE sack.
Net weight: 10 or 20 kg.
Packs per pallet: 100 or 50.

Description: Paper laminate sack.
Net weight: 10 or 20 kg.
Packs per pallet: 100 or 50.

Description: Printed carton.
Net weight: 20 or 25 kg.
Packs per pallet: 24.

Description: Printed WPP sack.
Net weight: 10 or 20 kg.
Packs per pallet: 100 or 50.

Description: Fibreboard drum, various colours.
Net weight: 20 or 25 kg.
Packs per pallet: 27.

Packaging for LIQUID Products

Description: Polythene jerry can.
Net volume: 2.5 litre.
Packs per outer: 4.
Outers per pallet: 48.

Description: Polythene jerry can.
Net volume: 5 litre.
Packs per outer: 4.
Outers per pallet: 40.

Description: HDPE bottle.
Net volume: 1 litre.
Packs per outer: 12.
Outers per pallet: 48.

PACKAGING INFORMATION

A range of high quality, fit for purpose packaging materials to complement Solufeed products.
All are well proven and appropriate to the intended market needs and conditions.

Description: Polythene jerry can.
Net volume: 10 litre.
Packs per outer: 2.
Outers per pallet: 36.

Description: Polythene jerry can.
Net volume: 20 litre.
Packs per pallet: 32.

Description: Polythene drum.
Net volume: 200 litre.
Packs per pallet: 4.

Description: IBC.
Net volume: 1000 litre.
Packs per pallet: 1.

Pallet sizes:

CP1: 100 x 120cm – Standard Pallet
CP2: 80 x 120cm – Euro Pallet
CP3: 114 x 114cm
CP9: 114 x 114 x 114cm
IBC: H1.15 x 1.15 x 1m

Container details:
20ft container: 20 pallets with 20,600kg max
40ft container: with 24,000kg max

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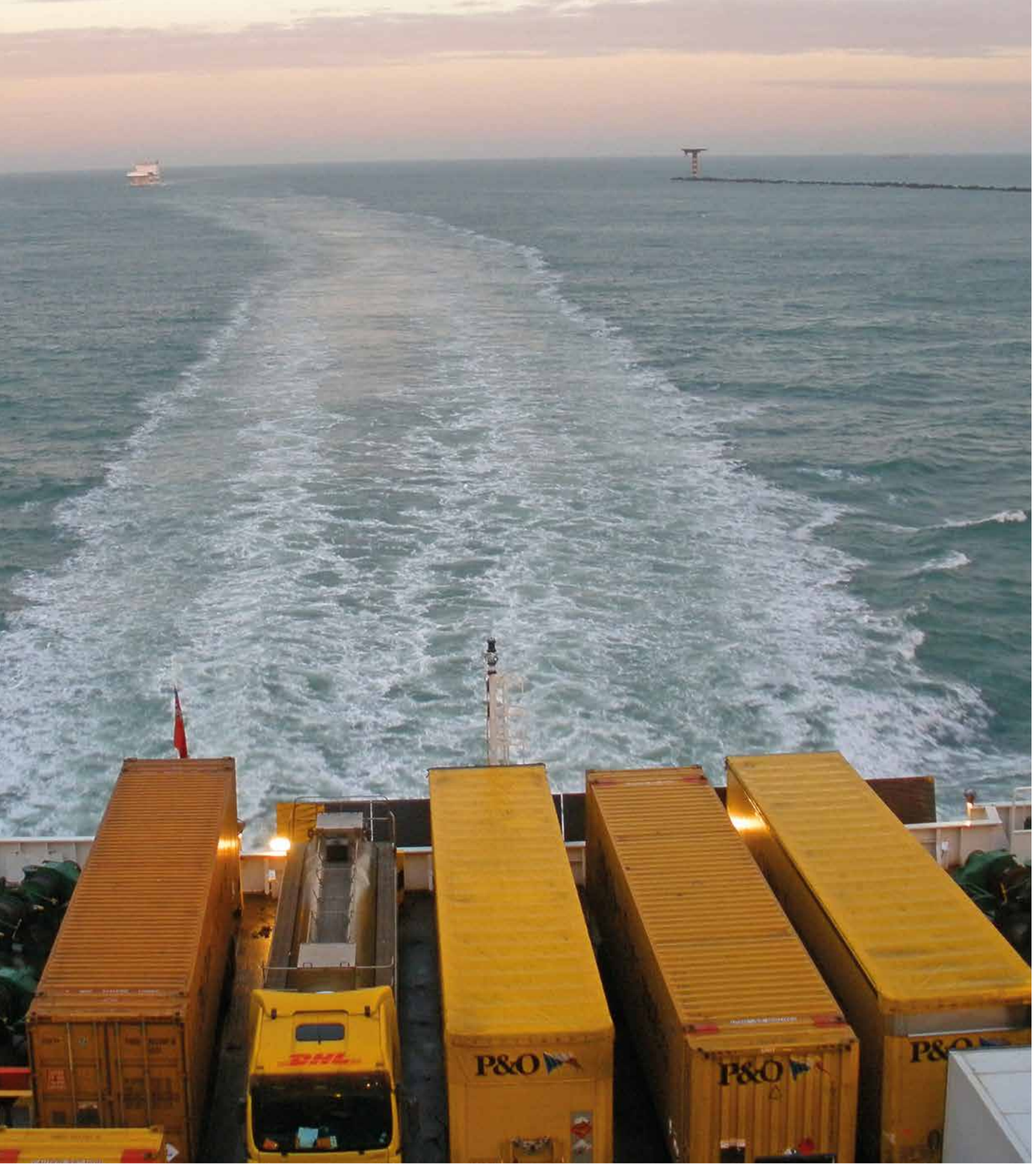

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