

SOLUBLE FERTILISER

Pflanzenernährung Pemakanan tanaman Живлення культури Gewas voedingsstoffen Φρέψη των ιτητικαλλιεργειών δωξερισείως

Odżywiania upraw Nutrição das culturas

cây trồng

بعديه محصول

作物の栄養

Nutriția recolta 작물 영양

> Nutrition des cultures

питание растений

Nutrizione delle colture dınh dưỡng

Crop nutrition Lishe ya Nutrición de cultivos ال تغذية الأمحاصيل U kırpma beslenme Kultūraugu uzturs

ธาตุอาหารพืช

作物营养

Usjeva prehrana

AUGALŲ MITYBA

फसल, पोषण

põllukultuuride toitumine

Хранене при растенията



Introduction

Established in 1993, OMEX Agrifluids has grown to be a leader in plant nutrition technology worldwide.

OMEX Agrifluids manufacture and export a unique range of plant nutrients and health promoters. The majority of our product range is designed for foliar application, but we also offer specialised seed treatments and a wide variety of high grade soluble powders for fertigation.

Our products are manufactured to the highest quality standards and our team of agronomists actively gives technical support and advice to our customers worldwide.

OMEX Agrifluids sells its products in over 90 countries and works very closely together with distributors possessing excellent local and technical knowledge.

OMEX Soluble Fertilisers

Intensively grown crops require high nutrient inputs to achieve satisfactory yields and quality. It is not possible to provide all these nutrients with the base fertiliser, which means supplementary feeding during the growth of the crop is required.

Application, via irrigation water, is an efficient way of supplying these additional nutrient requirements.

Fertigation of field grown fruit and vegetables enables nutrients to be supplied to crops as they require them, thus preventing fertiliser wastage through leaching. Fertigation of protected crops enables a continuous supply of all the plant nutrients to be available to plants exactly when they require them.



OMEX Soluble Fertilisers Advanced Powder Formulations

Plant Nutrition

Plants require significant inputs of the major nutrients nitrogen (N), phosphorus (P) and potassium (K). These nutrients are taken up in ratios which are determined by the growth stage of the plant and they must be available in sufficient quantities to meet demand.

NITROGEN is required for building the amino acids, genetic material and proteins that influence both structure and function of the entire plant. Nitrogen regulates leaf and canopy development, influencing photosynthesis, growth rates and aging.

PHOSPHORUS is essential for energy transfer, cell division and the development of root and shoot systems. It promotes root activity, affecting the uptake of nutrients and water, the formation of sugars and the development of both flowers and fruit. In addition, phosphorus plays a central role in maintaining plant health and in stimulating the activity of beneficial microbes in the root zone. Low phosphorous status can result in slow growth rates, poor fruit set and low Brix levels.

POTASSIUM is central to the production of carbohydrate and the movement of both water and nutrients through the plant. It influences canopy expansion, water uptake and the set, size and sugar content of fruit. In addition, leaf potassium levels can influence nitrogen metabolism, plant structure and tolerance to drought. Low potassium status can result in poor disease resistance.

Micro elements are required in small amounts by all crops and are present in OMEX Soluble Fertilisers to optimise crop growth. At certain stages of crop growth the root system is unable to absorb all its nutrient requirements from the soil.

We recommend the use of OMEX foliar fertilisers at critical growth stages to complement the Soluble Fertiliser programme. Our foliar fertilisers are designed for foliar uptake with a unique co-adjuvant package to maximise nutrient absorption by the leaf.

OMEX Nutrient Management

Using a combination of Soluble Fertilisers for fertigation with our foliar fertiliser range will provide the complete nutritional package for all crops and conditions.

We offer a specialist Nutrient Programme for all crops and growing conditions and have excellent results worldwide. Using the OMEX system of nutrient management maximizes plant health and vigour of crops and in turn increases pest and disease resistance reducing the need for agrochemicals.

The OMEX range includes; seed treatments, suspension fertilisers (unique OMEX suspension technology), clear solutions, health promoters and bio stimulants. For more information please contact us or visit our website.

Conductivity

Conductivity or soluble salt levels in soils can influence water availability to plants. In conditions of high conductivity water can become restricted with adverse effects upon plant growth. It is critical, therefore, to minimise build up of soluble salts in soils. This is a major reason why base fertilisation cannot provide all the crop nutrient requirements, because to do so would raise initial conductivities to damaging levels.

OMEX Soluble Fertilisers contain high purity nutrients and recommendations are based on carefully matching plant requirements. These factors ensure adequate nutrients are always available without raising conductivity levels unduly. However, water supplies invariably contain soluble salts which contribute to conductivity.

It is essential that irrigation water is assessed for salt levels, and feed strengths using OMEX Soluble Fertilisers adjusted accordingly.



Benefits of OMEX Soluble Powder Fertilisers

- Technical grade raw materials ensuring 100% solubility in water ensuring a high degree of crop safety.
- Nutrients immediately available for plant uptake.
- No risk of blockages to irrigation equipment
- Designed for use with all types of irrigation systems: drip, overhead, vertical, pivots,etc.
- Secondary nutrients (magnesium, sulphur) present. Some high magnesium formulations also available.

- Contain chelated trace elements, which are readily available and long lasting.
- Available in strong robust packaging
- Red, blue and green dyes are available for easy identification.
- Extensive range of NPK ratios providing optimum feed for differing growth stages which meet all crop requirements.
- Free of unwanted salts such as chloride or sodium.
- Made in the United Kingdom



Range of OMEX Soluble Fertiliser Grades

No.	Analysis
1	38-10-04+TE
2	13-00-45+TE
3	15-30-15+TE*
4	28-14-14+TE*
5	20-20-20+TE*
6	18-18-18+2MgO+TE
7	16-09-26+3MgO+TE
8	33.5-00-12+TE
9	17 -06 -18 +TE
10	12-15-35 +TE
11	10-08-40+TE*
12	15-15-30+TE
13	12-04-24+6MgO +TE
14	22-21-17+TE
15	12-12-36+TE
16	00-52-34+TE*
17	12-23-28+TE
18	13-22-26+TE
19	13-40-13+TE*
20	13-40-10+TE
21	30-10-10+TE*
22	Albert Solution

*Conforms with Regulation (EU) 2019/1009 of the European Parliament and the Council of 5 June 2019 (EU fertilising products)



OMEX offer a comprehensive range of advanced powder formulations manufactured only from technical grade raw materials and blended to exacting quality standards.

The OMEX range may be used in all fertigation systems to provide a balanced nutrient programme containing NPK, magnesium and essential chelated micro elements. Coloured dyes can also be included in each analysis.

Other analyses available on request

Albert Solution

- All essential nutrients in one product
- Nutrients immediately available for plant uptake
- Avoid nutrient locking, fixing & wastage
- Help fight against environmental stress, such as heat, cold weather, etc.
- Can be used in drip irrigation for fertigation
- No risk of blockage irrigation equipment

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Analyses, Dilution & Conductivity

Percentage nutrient & trace element composition of a selection of OMEX Soluble Fertilisers:

	20-20-20	28-14-14	13-40-13	15-15-30	12-06+24+6MGO
Total N	20.0	28.0	13.0	15.0	12.0
Ureic N	15.5	21.2	0.6	2.7	3.3
NH₄-N	2.5	2.8	8.7	3.8	3.1
NO ₃ -N	2.0	4.0	3.7	8.5	5.6
P_2O_5	20.0	14.0	40.0	15.0	6.0
K₂O	20.0	14.0	13.0	30.0	24.0
MgO	0.02	0.02	0.02	0.02	6.0
SO ₃	7.4	0.03	2.19	2.43	21.2
В	0.0022	0.0022	0.0022	0.0022	0.0022
Cu	0.0016	0.0016	0.0016	0.0016	0.0016
Fe	0.007	0.007	0.007	0.007	0.007
Mn	0.0042	0.0042	0.0042	0.0042	0.0042
Мо	0.0014	0.0014	0.0014	0.0014	0.0014
Zn	0.0014	0.0014	0.0014	0.0014	0.0014

Nutrient concentrations (ppm) and conductivity* (μ S/cm) of this selected range at three dilutions of standard stock solution.

	20-20-20	28-14-14	13-40-13	15-15-30	12-06+24+6MGO
1:100					
Ν	200	280	130	150	120
P_2O_5	200	140	400	150	40
K₂O	200	140	130	300	240
Conductivity	820	780	1200	1050	950
1:150					
Ν	134	187	87	100	80
P_2O_5	134	94	268	100	27
K ₂ O	134	94	87	200	161
Conductivity	610	580	880	770	700
1:200					
Ν	100	140	65	75	60
P_2O_5	100	70	200	75	20
K₂O	100	70	65	150	120
Conductivity	410	390	600	525	475

*in deionised water. Add conductivity of irrigation water to these figures.

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How to use OMEX Soluble Fertilisers

Alternatively the stock solution can be eliminated and feed solutions can be made up directly using bulk tanks etc. As an example a feed solution equivalent to a 1 in 100 dilution of a stock solution is made by dissolving 1kg OMEX Soluble Fertiliser in 1000L water.

If fixed dilutors are used, the strength of the feed solution can be diluted to some degree by varying the strength of the stock solution. For instance, if a 1 in 150 dilution of a standard stock solution is required, but the dilutor is fixed at a 1 in 200 dilution, then use stock solution having 1.3kg dissolved in 10 L (rather than 1kg).

Conductivity readings can be used to determine the strength of the required feed solution.

Determine the required conductivity level (see table for conductivities of some diluted OMEX Soluble mixes) and then add the conductivity of the irrigation water to this figure. Control the stock solution dilution until the calculated conductivity figure is achieved.

If a small amount of a specific NPK ratio is required, mixing OMEX Soluble Fertilisers can be undertaken during the making of stock solutions. For instance if 1kg 20-20-20 and 1kg of 28-14-14 are dissolved in 20L water, the resultant stock solution will have an analysis of 24-17-17. Blending of OMEX Soluble Fertilisers is therefore an option, which means an infinite range of NPK's is possible.



Available in 10kg and 25kg bags

How to store OMEX Soluble Fertilizers

- Store in a cool, dry and wellventilated location.
- Keep products off the floor and on the original pallets provided.
- Store with a maximum of 1000Kg per pallet.
- It is recommended not to double stack pallets.
- Position pallets to allow room for adequate ventilation and regular stock inspection.



Specific crop guidelines & recommendations

Analysis of soil, water and plant tissue, as well as understanding past fertilisation programmes, will help in choosing the appropriate fertiliser to use for any crop in question.

Most crops will require a feed in the range 0.6 to 1.2 grams per litre (0.06 – 0.12% w/w) and using dilutions as recommended below will give solution concentrations in this range.

The frequency of application is down to individual cropping needs, but the general rule of little and often applies. A weak feed given all the time (i.e. at every watering) is usually preferable to a strong feed interspersed with pure water.

Crop	Time of application	Suggested OMEX soluble fertilizer	Dilution rate of standard stock solution	Comments	
Tomato	Early growth	20-20-20	1:200		
	Fruiting, main feed	13-00-45 or 10-08-40 or 12-04-24+6MgO	1:100	Alternate feeds	
	Early growth	28-14-14	1:200	Gradually move from high N to high K feeds	
Cucumber	Fruiting	15-15-30 or 16-09-26+3MgO	1:150		
_	Early growth	20-20-20	1:200		
Pepper	Fruiting	15-15-30 or 12-04-24+6MgO	1:150	At each irrigation	
	Early growth	8-18-18+2MgO	1:200		
Melon	Fruiting	17-06-18	1:100	At each irrigation	
	Early growth	20-20-20	1:200	Similar feeding	
Aubergine	Fruiting	13-22-26	1:150	to peppers	
Lettuce	Main feed	28-14-14 or 38-10-04	1:150	Given as a growth boost	
Potato	Early growth	13-40-13	1:150	Under pivots	
	Main feed	13-00-45	1:100		
Citrus	Small trees	22-21-17	1:100	Citrus can be fed quite extensively	
	Fruiting	12-04-24 or 12-12-36	1:100		
Fruit trees e.g. apple	Small trees	15-30-15	1:100		
	Early growth	30-10-10	1:150		
	Fruiting	16-09-26+3MgO	1:100		
Mango	Small trees	17-06-18	1:150		
	Fruiting	12-12-36 or 12-04-24+6MgO	1:100		

Crop	Time of application	Suggested OMEX solu- ble fertilizer	Dilution rate of standard stock solution	Comments
	Early growth	18-18-18+2MgO	1:200	
Strawberry	Fruiting	12-15-35 or 16-09-26+3MgO	1:100	Alternate feeds
Grape	Fruiting	17-06-18 or 10-08-04	1:100	
Asparagus	Main feed	30-10-10	1:150	
Pineapple	Fruiting	15-15-30	1:100	
Avocado	Main feed	12-15-35 or 16-09-26+3MgO	1:100	
Coffee	Main feed	15-15-30	1:100	
	Early growth	15-30-15 or 30-10-10	1:200	Under pivots
wneat	Grain set	16-09-26+3MgO	1:150	
Seed beds	Propagation	00-52-34 or 13-40-10	1:200	
Deddingerslands	Early growth	22-21-17	1:200	
Bedding plants	Flowering	13-22-26 or 12-23-28	1:100	Maintains flowering
Gerbera	Main feed	12-23-28	1:100	
Cut flowers	Vegetative growth	17-06-18	1:100	
	Main feed	10-08-40	1:100	Maintains flowering
Roses	Main feed	20-20-20 or 12-12-36	1:100	Maintains flowering
Pot plants	Foliage plants	28-14-14	1:150	As growing media nutrients run low
	Flowering plants	15-15-30	1:150	
Chrysanthemums	Main feed	17-06-18	1:100	Cease feeding at bud colour
Cross	Main feed	33-00-12 or 38-10-04	1:150	Under pivots
Urass	As growth slows	12-15-35	1:150	

N.B Recommendations given in this table are only provided as a general guide. Feed type, dilution rate and frequency of feeding must be adjusted to the needs of the individual crop, and to the specific soil conditions.

Please consult your agronomist or local OMEX representative for details on your crop requirements.



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Application Rate Guidelines

The amount of OMEX Soluble Fertiliser required to feed a crop from start to finish depends on crop types, growth rates, crop densities, harvesting periods, soil types,

base fertiliser levels, etc. However the following guidelines are given so that an estimation of requirements can be made.

СКОР	Bags (25kg) of OMEX Soluble Fertilizers per hectare per season
PROTECTED AREAS	
Tomatoes, peppers, cucumbers, etc	40
Bedding plants	8
Pot plants	24
Cut flowers	32
FIELD GROWN AREAS	
Strawberries and other soft fruit	12-16
Asparagus, celery, beans	12-20
Roses	10
Nursery stock	20
Turf	8
Citrus	24
Apples, pears and other top fruit	18

Conversion Factors

P to P ₂ O ₅	Multiply by	2.29
K to K₂O	Multiply by	1.2
Mg to MgO	Multiply by	1.62
S to SO₃	Multiply by	2.5



OMEX Product Range

OMEX offer an extensive range of products, manufactured in the UK and delivered globally

Suspension Fertilisers

Highly concentrated totally soluble free flowing formulations for maximum bioeffectiveness on a wide range of crops

- **OMEX** CalMax[®] •
- OMEX CalMax[®] Gold
- .
- **OMEX Sequential 2**
- OMEX K41 .
- OMEX NK60
- **OMEX** Citromax
- **OMEX** Micromax .
- **OMEX Quad 14**
- **OMEX FeN Feed**
- OMEX ZiBo .
- **OMEX** Folicao

High concentration clear nutrient solutions for foliar and fertigation application

- **OMEX Foliar Boron**
- **OMEX Magnesium Plus** .
- **OMEX FeN Feed**
- **OMEX Sulphomex**

Health Promoters

A unique range of products designed to stimulate plant health and vigour and to increase their ability to withstand pests and diseases.

- **OMEX DP98** •
- **OMEX pHortify**
- **OMEX Vitomex**
- **OMEX Foliar Supreme**
- OMEX K50
- **OMEX SW7**
- **OMEX SuperMn**

OMEX CalMax[®] Ultra **OMEX Sequential 1**

- **OMEX 3X Emulsion**

Clear Solution Fertilisers

OMEX Garland Organomex 6-2-4

MDS - Fertiliser & Seed Coatings

Primer CoMo Bio 12 & 33

Primer CoMo Zn 70

Easy to apply concentrated aqueous suspensions with high levels of micronutrients

Foliar Nutrients for organics farming

Kingfol Range

Biostimulants

OMEX Bio 8

Bio-Fertilisers

OMEX Bio 20

OMEX Seastar F

Biomex Starter

Biomex Plus

Seed Treatments

Organomex Range

A range of products incorporating seaweed

to stimulate rooting, plant growth and

nutrient uptake. Also to help withstand abiotic stress caused by drought, flooding,

salinity and extreme temperatures.

Single element formulations for specific deficiencies



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EMS 764120

OHS 776644

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