



EMPOWERING GROWTH

PREMIUM QUALITY SPECIALTY FERTILIZERS



K+S



K+S



**WE ENRICH LIFE
FOR GENERATIONS**

www.ks-middleeast.com

K+S Minerals and Agriculture GmbH- Crude salts turned into high-grade plant nutrients

K+S extracts valuable underground potassium and magnesium salts by mining to process them into various products including mineral fertilizers, pharmaceutical salts, table salts, animal feeds or industrial products.

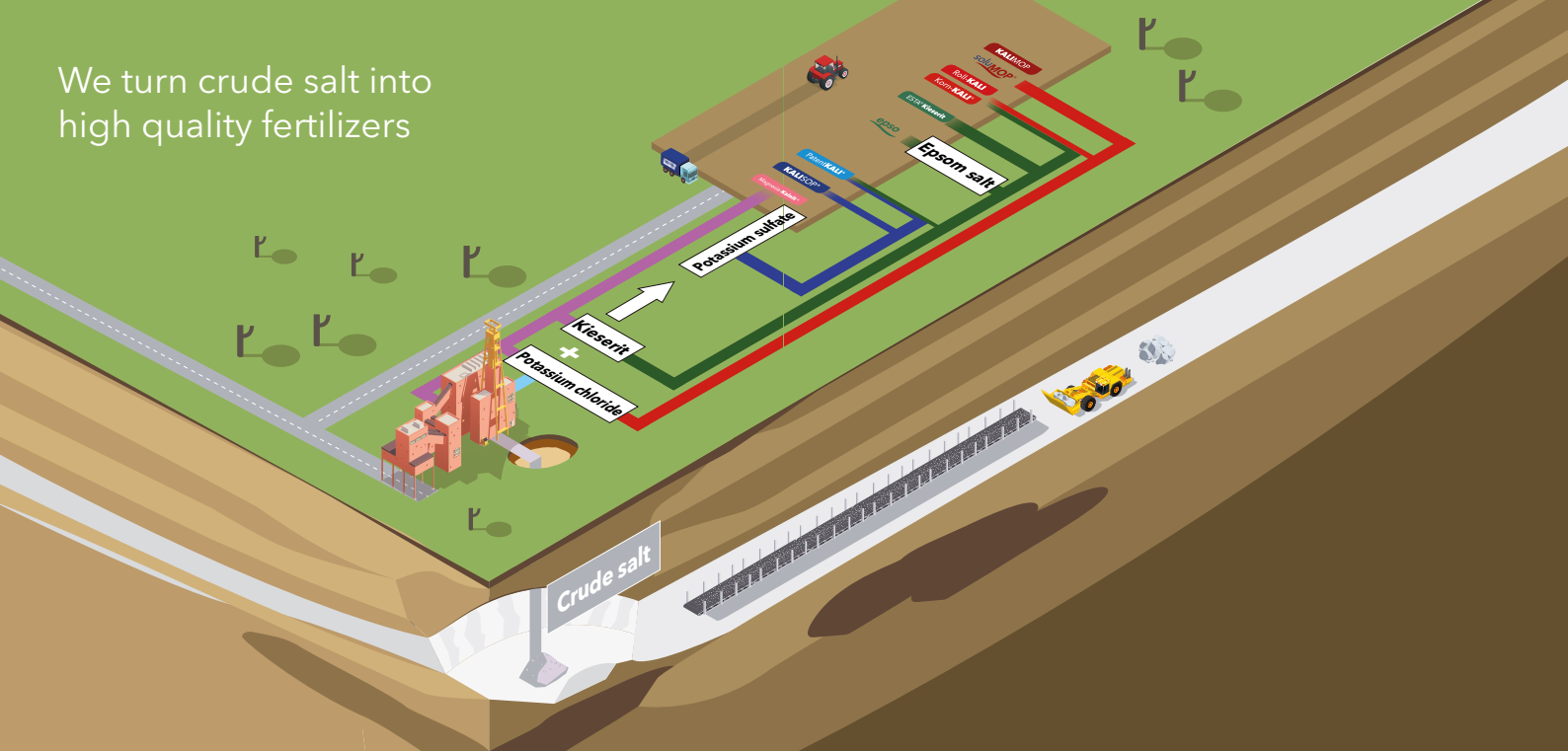
With more than 135 years of company history, K+S is the world's most experienced potash producer and refiner. In addition to kieserite and other magnesium compounds, our unique deposits supply a range of valuable natural resources in the form of potassic minerals such as Sylvite and Carnallite. This enables us to produce essential plant nutrients including potassium, magnesium and sulphur in a single step and to turn them into outstanding mineral fertilizers. Our highly varied product range is unique in the world.

This brochure provides an overview of our product range, covering products for soil application, foliar fertilization and fertigation purposes.

For more information about our products, please contact our regional consultants or call our specialists at our headquarters.



We turn crude salt into high quality fertilizers



The formation of potash deposits in Germany occurred about 250 million years ago because of the evaporation of the Zechstein Sea. Today, the shallow, seam-like potash deposits with thicknesses of about 3 - 8 meters are located at depths of between 500 and 2500 meters. Our mining operations extend down to depths of more than 1000 meters.

You will find our modern K+S mines in Saxony-Anhalt as well as in the Werra-Fulda district of Hesse and Thuringia. We extract potash crude salts and refine them into products used in agriculture, industry, health, and nutrition. Yet we do not only produce in Germany. In 2017, the Bethune potash plant built by K+S started production in Canada, expanding the global presence of the K+S Group. Following the addition of K+S Potash Canada, we are now a potash supplier with production sites on two continents.

Due to their natural origin, many of our fertilizers are approved for use in organic farming.

A photograph of a field of leafy green plants, likely chard or spinach, in the foreground. The background shows a sunset or sunrise with a warm orange and yellow glow on the horizon, transitioning to a blue sky with scattered clouds. The text "K+S RANGE OF FERTILISERS" is overlaid in white, bold, sans-serif font.

**K+S RANGE OF
FERTILISERS**

A photograph of a field of green leafy plants, likely a vegetable field, under a sunset sky. The sun is low on the horizon, casting a warm glow over the scene. The sky is filled with soft, wispy clouds. In the background, there is a line of trees. The overall mood is peaceful and natural.

F SOIL GRADE LIZERS

Overview:

K+S Germany offers a diverse range of high-quality soil-grade fertilizers tailored to meet the nutritional needs of various crops and soil types. Their product portfolio includes potassium, magnesium, and sulfur-based fertilizers that enhance soil fertility and promote sustainable agriculture. These fertilizers are specially designed to optimize crop yield, improve plant resilience, and address specific soil deficiencies.

Key products in the range include:

- **KALISOP® (Potassium Sulfate):** Ideal for chloride-sensitive crops, providing potassium and sulfur in a readily available form.
- **ESTA® Kieserit (Magnesium Sulfate):** A natural magnesium and sulfur source for the targeted supply of crops in particular need of magnesium and sulfur, or in undersupplied soils.
- **PatentKALI®:** A balanced formulation of potassium, magnesium, and sulfur for a wide range of crops.
- **KALIMOP®:** Universal potassium fertilizer with 60% K₂O, mainly for further processing in the complex fertilizer industry.
- **Korn-KALI®:** The all-rounder. Four elements – one granule. The complete solution for crops in need of sulfur.
- **Roll-KALI®:** A highly concentrated complex fertilizer with potassium, sulfur, and magnesium.
- **Magnesia-Kainit®:** The specialist for grassland and forage production, containing sodium important for animal nutrition.



KALISOIL



GRAN.

KALIMOP

DUSTFREE

KALIMOP

60% K₂O

Highly concentrated single-nutrient potassium fertilizer.

Extracted from natural crude salt deposits in Germany and Canada.

Suitable for all chloride tolerant crops.

Uniform particle size, ideal for straight use and bulk blending.





KALI SOIL



Korn-**KALI**®

Korn-**KALI**®

+B

40% K₂O
6% MgO
13% SO₃

Balanced fertilizer with Potassium, Magnesium, and Sulphur.

Contains all nutrients in a fully water-soluble form, directly available to the plants.

Uniform particle size ensures precise spreading quality.

Available also with Boron (B) as additive for high B demanding crops.





KALISOIL



GRAN.

KALISOP®

FINE

KALISOP®

50% K₂O
44% SO₃

Natural, chloride free potassium sulphate fertilizer for premium crops.

Contains potassium and sulfur in fully water-soluble and plant available form.

Green fertilizer with organic certification, used as a straight fertilizer and in NPK compounds/blends.





KALI SOIL



PatentKALI®

30% K₂O
42.5% SO₃
10% MgO

Natural, organic certified fertilizer containing sulphates of potassium and magnesium in fully water-soluble plant available form.

Low chloride content, highly suitable for Cl sensitive crops.

Product with optimal 3:1 K:Mg ratio, making it optimal for all cash crops.





KALISOIL



FINE

ESTA® Kieserit

25% MgO

50% SO₃

ESTA® Kieserit

27% MgO

55% SO₃

Natural Magnesium Sulphate Monohydrate from mining origin.

Sulphate based magnesium fertiliser with 25-27% MgO and 50-55% SO₃.

Water-soluble and immediately plant available.

Suitable for application to all crops in all soil types regardless of its pH.

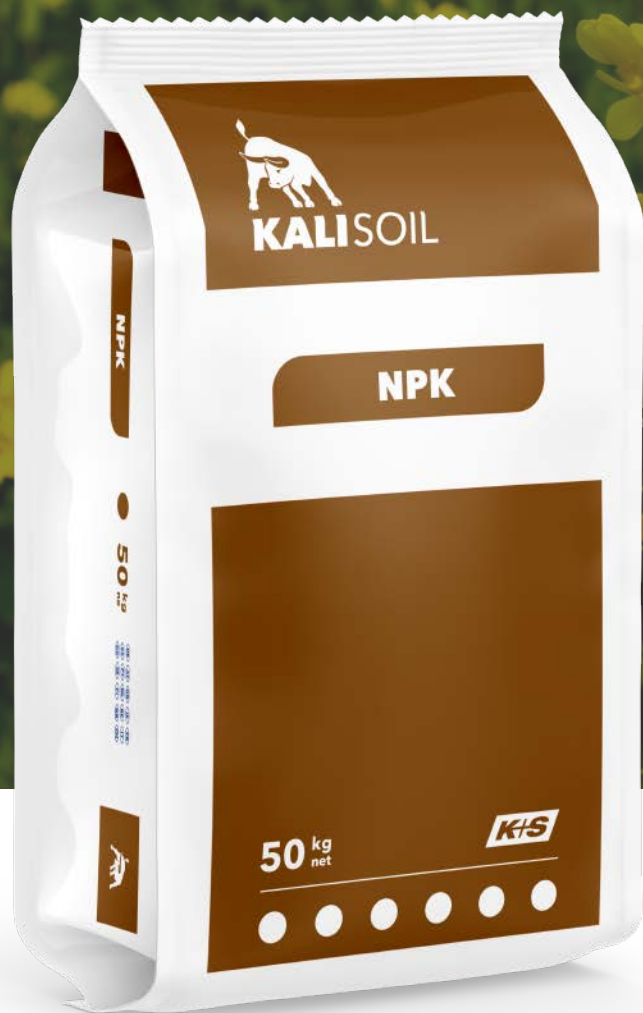
Uniform particle size and granule hardness offers excellent spreading properties.

Approved for use in organic farming according to European regulations.





KALISOIL



15-15-15

NPK

12-11-18

NPK

12-12-17

NPK

18-18-5

NPK

Granular NPK fertilizers of European origin.

SOP based products with low chloride (< 1%).

Uniform granulometry, enables efficient distribution.

Suitable for wide range of crops, can be applied
at all growth stages.

Balanced nitrogen distribution with all three forms
(predominantly ammoniacal, and nitrate forms),
improving overall N use efficiency.





KALISOIL



NOVANAT®

12% N
2% K₂O
30% SO₃

100% Organic certified fertilizer of plant origin.

Natural product derived from fermentation of corn residues.

Long-term nutrient availability with 50% slow and 50% rapid release.

Product with 65% organic matter, low C/N ratio 1.33 and acidic pH 3-5.

Attractive black round granules of 2-5 mm size, ensures uniform spreading in the field.



A man with glasses and a checkered shirt is standing in a field of tall, green grass. He is holding a small plant sample in his hands. The background shows a blue sky with some clouds. The text "K+S RANGE" and "SOLUBLE F" is overlaid on the image.

K+S RANGE
SOLUBLE F

A man with short, light brown hair and a beard is shown in profile, looking towards the left. He is wearing a dark green, textured sweater. He is standing in a field of tall, green grass that is blowing in the wind, creating a sense of motion. The background is a bright blue sky with scattered white clouds. The overall image has a slightly desaturated, artistic feel.

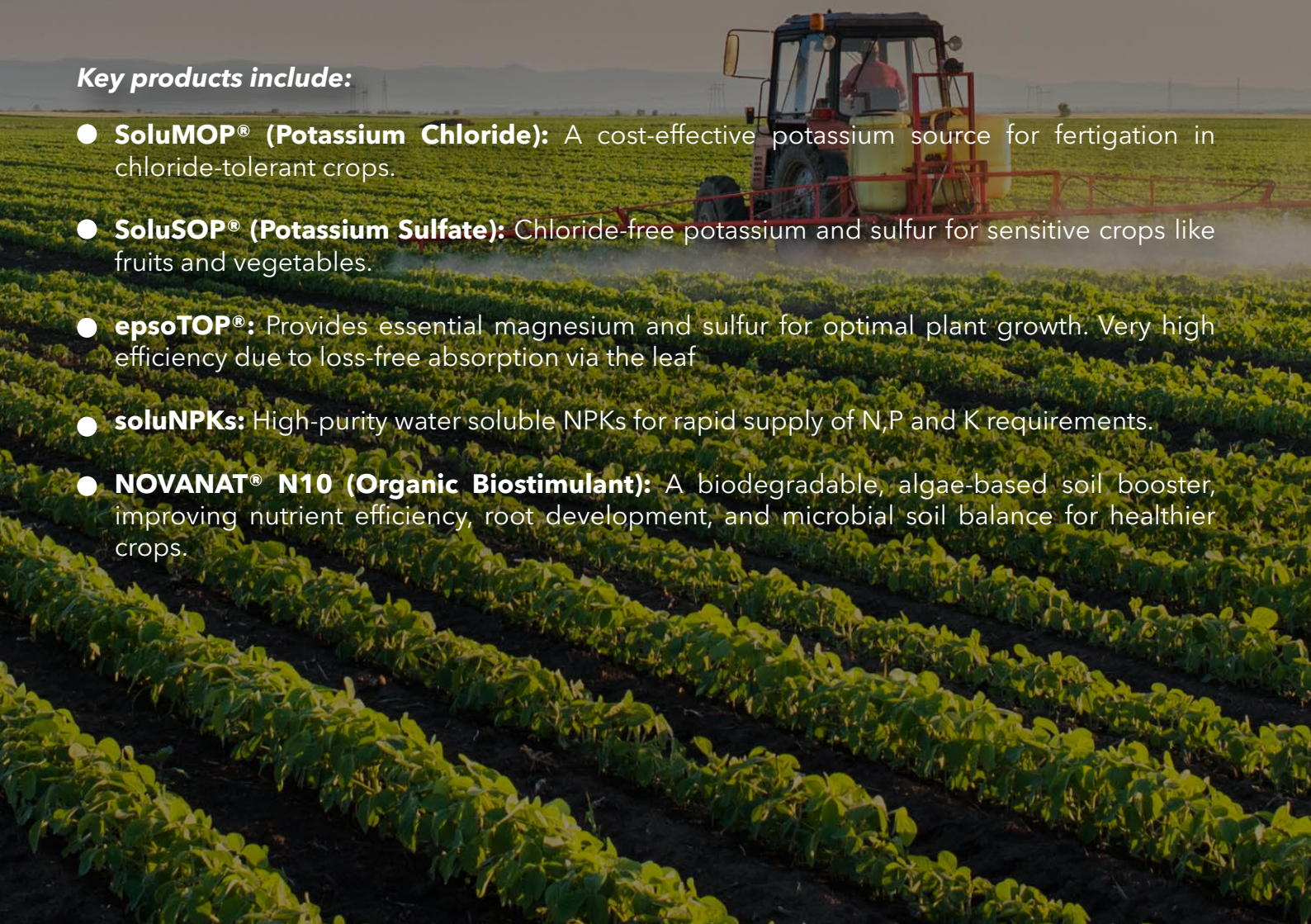
E OF WATER FERTILIZERS

Overview:

K+S offers a premium range of water-soluble fertilizers designed for modern, efficient crop nutrition. These fertilizers dissolve completely in water, ensuring precise nutrient delivery through fertigation or foliar application. They are ideal for high-value crops, greenhouse cultivation, and intensive farming systems.

Key products include:

- **SoluMOP® (Potassium Chloride):** A cost-effective potassium source for fertigation in chloride-tolerant crops.
- **SoluSOP® (Potassium Sulfate):** Chloride-free potassium and sulfur for sensitive crops like fruits and vegetables.
- **epsoTOP®:** Provides essential magnesium and sulfur for optimal plant growth. Very high efficiency due to loss-free absorption via the leaf
- **soluNPKs:** High-purity water soluble NPKs for rapid supply of N,P and K requirements.
- **NOVANAT® N10 (Organic Biostimulant):** A biodegradable, algae-based soil booster, improving nutrient efficiency, root development, and microbial soil balance for healthier crops.





KALISOLU

soluAMS[®]

soluAMS[®]
GRAN.

soluAMS[®]
PREMIUM

21% N
60% SO₃

Water-soluble, acidic nitrogen fertiliser containing sulphur (pH = 4.0-4.5).

Fertilizer with S x N combination improves N use efficiency and overall crop quality.

Best source of N, recommended during periods of vegetative growth.

Developed for fertigation in open field, and greenhouse conditions, also suitable for foliar application.

soluAMS[®] gran can be used for broadcasting and direct field application.





KALISOLU



soluUP®

17% N
44% P₂O₅

Fully water-soluble acidic fertilizer (pH = 1.7-1.9),
supplying N and P.

Suitable for the initial and mid-season
growth stages.

Best quality, produced from purified hot process with
low chloride (< 1 % Cl), very low heavy metal content,
high solubility, and free flowing nature.

Has a reducing effect on the pH value of irrigation water,
keep pipes and drippers clean, and prevents clogging.

Is ideal for application on calcareous soils with high pH
due to its pH lowering effect.





KALISOLU



soluCN[®]

15.5% N
14.4% NO₃-N
1.1% NH₄-N
26% CaO

Only water-soluble source of calcium for plants, works both as a fertilizer and for disease control.

Presence of N in readily available nitrate form helps in complementing N demand at peak growth stages.

Used for controlling disorders such as tip burn, blossom end rot of crops.

DO NOT mix with any product containing sulphates and phosphates due to incompatibility.





KALISOLU



*solu***CN+B**[®]

14.5% N

17% Ca

0.2% B

100% water-soluble Calcium fertilizer combined with boron for enhancing the uptake of calcium through transpiration pull aided in the presence of boron.

An option for supporting the calcium requirement in plants through out the growth stages.

Helps in overcoming the physiological disorders such as tip burn and blossom end rot resulting from Ca deficiency.

Improves fruit set, increases fruit quality, reduces flower and fruit drop, as well as unmarketable fruits through improving the shelf life and keeping quality.





KALISOLU

soluMAP®

12% NH₄-N

61% P₂O₅

100% water-soluble crystalline NP fertilizer essential for improved vegetative growth, better root proliferation, enhanced flowering, and fruit setting.

Ideal phosphorus fertilizer source with acidifying nature for crops grown under fertigation and foliar application.

Presence of high P (61%) and optimal N (12%) in ammoniacal form, makes it also ideal for application in the generative stages, especially in crops with multiple harvests in greenhouses and hydroponic systems.

Supports growth of reproductive parts during fertilization, reduces flower drop, increases fruit setting and contributes to increased crop yield and quality produce.





KALISOLU



soluMKP®

34% K₂O
52% P₂O₅

100% water-soluble PK fertilizer, suitable for foliar application and fertigation systems grown in open fields, green houses, and hydroponics systems.

Ideal for use during the generative growth stages for excellent flowering, fruit setting, fruit development, and higher fruit yield.

Used for improving the quality and sensory parameters of fruits and vegetables (e.g. size, color, sugar content, taste, aroma, shine/luster etc.) for a better shelf life and marketability.

Can be used in combination with fungicide application, for improving fungicide efficiency and control fungal diseases (e.g. powdery mildew in grapes, mango, cucumbers and others).





KALISOLU



soluPKa[®]

60% P₂O₅
20% K₂O

100% water-soluble acidifying fertilizer (pH 1.8-2.0) with high P and balanced K, also called as acidic MKP, used mainly in alkaline soils and hard waters with high pH.

Ideal for use during the generative growth stages for excellent flowering, fruit setting, fruit development, and higher fruit yield.

Presence of potassium with low pH not only tackles the problems associated with alkaline soils but also increases plant tolerance to biotic and abiotic stress conditions.

Increases micronutrient availability and uptake efficiency both in soils and irrigation waters associated with high pH.





KALISOLU



soluMOP®

60% K₂O

100% water-soluble potassium chloride containing 60% K₂O, suitable for use in direct soil application and in fertigation during the initial crop growth stages.

Can also be used as an option for foliar application at 0.5-1.0% concentration during initial to mid-stage crop growth.

Universal potassium fertilizer suitable for all chloride tolerant crops.

Suitable for use in all soil types, highly suitable for straight use and compatible for mixing with other fertilizers.

Could be considered as a most cost-effective raw material for water-soluble NPK fertilizer blends.





KALISOLU



solusOP®

50% K₂O
45% SO₃

Fully water-soluble potassium sulphate fertilizer produced using Mannheim process with low pH (< 2.0).

Contains 50-52% K₂O and 18% S, with low Cl (< 1%) and high solubility (= 110 g/lit at 20 °C).

Could be used both as a straight water-soluble fertilizer and also as a raw material in the production of water-soluble NPK blends.

Compatible with all other fertilizers except Calcium containing products.

Can be used in both foliar application and/or fertigation (drip irrigation) to prevent or overcome potassium and sulfur deficiencies while fulfilling the high demand at critical growth stages.





KALISOLU



solusOP[®] 53 ORGANIC

52-53% K₂O

45% SO₃

Is an excellent water-soluble potassium sulphate fertiliser produced using natural Glaserite process

Suitable for fertigation, and foliar application.

Is organic certified and is suitable for use in organic farming.

High solubility (110-120 g/lit at 20 °C), dissolves very quickly in water without residues.

Is virtually free of chloride making it particularly suitable for chloride sensitive crops.

Presence of high K₂O content (=52-53%) and extremely low Cl content (≤ 0.2%) offers flexibility as a potential raw material source in the water-soluble NPK blends. It can also create extra space for additives such as trace elements.





KALISOLU



soluNOP®

46% K₂O
13.5% NO₃

Fully water-soluble potassium nitrate fertilizer containing potassium and nitrogen in plant available nitrate form with the highest possible concentrations (13.5 % N and 46 % K₂O).

Is almost free of chloride, sodium and has a pH near to neutral.

Can be applied to a wide range of crops and orchards.

Helps to increase the uptake of potassium, calcium and magnesium from the soil and is very suitable for optimizing nutrition and increasing the uptake efficiency of other nutrients.

Suitable for the whole growth period, especially during the mid-vegetative phase toward the end of the generative phase.

Helps to increase aboveground biomass as well as fruit size and protein content, leading to higher yields.





KALISOLU



soluMgN[®]

10.8%NO₃-N
15.4% MgO

100% water-soluble magnesium nitrate fertilizer containing 10.8% NO₃-N and 15.4% MgO.

Prevents Mg deficiency, improves nitrogen uptake and promotes root development.

Ideal option both for fertigation including hydroponics and foliar application during the peak flowering and fruiting stages with a high demand for K, Ca, and Mg.

Beneficial for all fruits and vegetables to enhance leaf health and overall structure of the plant.





KALISOLU



soluCalmag[®]

13% N
15% CaO
6% MgO

Supplies balanced proportions of Ca and Mg in nitrate form during the critical fruiting to fruit development stages.

Combines all three essential nutrients (N, Ca, Mg) in one product for a good plant structure, increased photosynthetic efficiency, and rapid leaf mass development.

Applied in plants to overcome calcium or magnesium deficiency to improve plant health and promote overall growth.





KALISOLU



*solu***EPSOMITE**[®]

16% MgO (9.6% Mg)
32.5% SO₃ (13% S)

100% water-soluble Magnesium Sulphate fertilizer containing 16% MgO (9.6% Mg) and 32.5% SO₃ (13% S), produced by chemical reaction of Magnesium oxide or Magnesium carbonate with sulphuric acid.

Presence of magnesium helps the plant in the production of chlorophyll, improves carbon transport within plants, stimulates growth, and plays a key role in photosynthesis.

Magnesium helps plant to survive under stress, enabling plants to tolerate both biotic and abiotic stresses.

Presence of sulfur helps in improving the nitrogen uptake and improves the overall quality of harvested produce such as color, taste, and fruit firmness while improving the overall protein content.





KALISOLU



soluCMS®

33% MgO
65% SO₃

soluCMS® is the only natural anhydrous Magnesium Sulphate fertilizer containing highly concentrated magnesium sulphate (98.4% MgSO₄, highest purity) along with the other constituents in traces.

soluCMS® is produced by calcination of natural kieserite (MgSO₄ monohydrate) extracted from K+S mines in Germany. Used both as a straight water-soluble fertilizer and as raw material in the production of water-soluble fertilizer blends to complement with additional nutrients such as Mg and S.

soluCMS® reduces caking and keeps the water-soluble fertilizer blend free flowing to improve the overall storage quality.





KALISOLU



epsotOP®

16% MgO
32.5% SO₃

100% water-soluble, ONLY organic certified natural fertilizer produced in Germany from recrystallization process of Kieserite mineral.

No chemical reactions involved during the production, contains 16% MgO and 32.5% SO₃ (13% S), with highest solubility (1000 g/lit at 20 °C).

Fast-acting fully water-soluble Mg & S fertiliser for fertigation and foliar application, quickly dissolves in water without any residues, no risk of crop damage when applied at higher doses due to its natural origin.





KALISOLU

N10

NOVANAT®

**Organic-Based Growth Booster for Healthier Crops
Enhance Soil | Strengthen Roots | Maximize Growth**

**Organic Matter: 23%
Nitrogen (N): 10%**

NOVANAT® N10 is a high-quality organic biostimulant, formulated from algae extracts to enhance soil health, improve nutrient efficiency, and promote stronger root development. It is fully biodegradable and environmentally friendly, making it the ideal solution for sustainable agriculture.

- Optimized Nutrient Absorption
- Stronger Root Development
- Enhanced Soil Health
- Sustainable & Eco-Friendly





KALISOLU



soluNPK®
18-18-18+TE

soluNPK®
19-19-19+TE

soluNPK®
20-20-20+TE

soluNPK®
28-14-14+TE

soluNPK®
12-12-36+TE

soluNPK®
15-30-15+TE

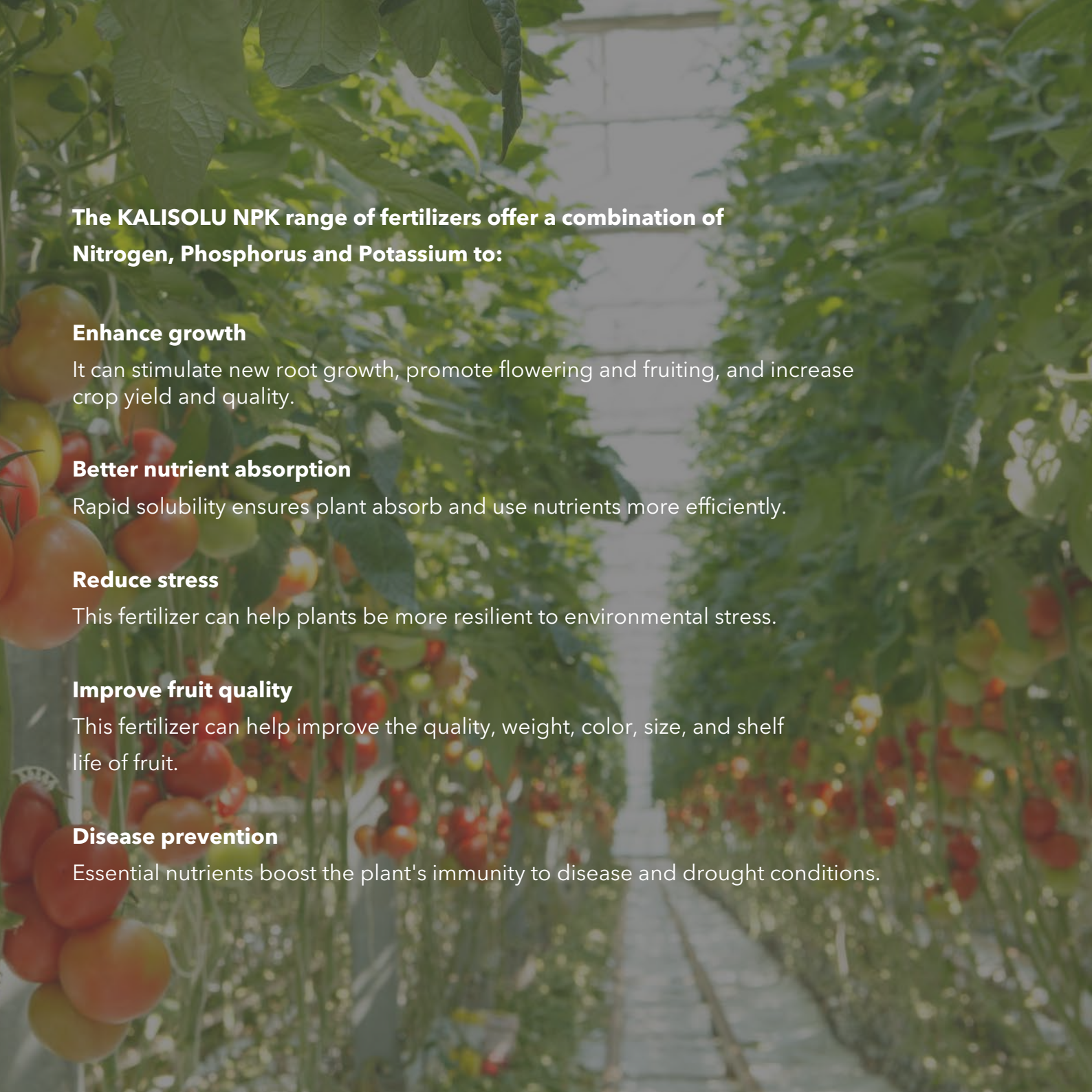
soluNPK®
16-8-24+TE

soluNPK®
10-52-10+TE

soluNPK®
13-40-13+TE

soluNPK®
12+6+24+TE





The KALISOLU NPK range of fertilizers offer a combination of Nitrogen, Phosphorus and Potassium to:

Enhance growth

It can stimulate new root growth, promote flowering and fruiting, and increase crop yield and quality.

Better nutrient absorption

Rapid solubility ensures plant absorb and use nutrients more efficiently.

Reduce stress

This fertilizer can help plants be more resilient to environmental stress.

Improve fruit quality

This fertilizer can help improve the quality, weight, color, size, and shelf life of fruit.

Disease prevention

Essential nutrients boost the plant's immunity to disease and drought conditions.



**K+S RA
MICRONU
FERTIL**

ANGE OF UTRIENTS LIZERS





soluTE_{Cu}

Copper-EDTA 12%

It is essential for the activation of many enzymes that aid in photosynthesis, respiration, and protein synthesis. It also helps in proper pollen production, enhancing flowering and fruit/seed formation.

soluTE_{Zn}

Zinc EDTA 12%

Free flowing, crystalline white powder, with unique chelate chemistry for improved crop performance. Ideal solution for correcting Zn deficiency in cash crops.

soluTE_{Fe}

Iron-EDTA 12%

Ideal for correcting Fe deficiency in horticultural and agricultural crops by giving a strong apical zone free of chlorosis plays an essential role in the production of chlorophyll.

soluTE_{Fe}

soluTE Fe-EDDHA 6% Fe, 4.8 O-O

Iron -EDDHA, dark red-brown microgranular product containing 6% water-soluble Fe. Iron in Fe-EDDHA is chelated as (4.8% ortho-ortho isomer), highly beneficial for both agricultural and horticultural crops, especially grown in high pH soils. It is a stable product at a wide pH range 3.5 - 12, 100% water-soluble, and non-dusting iron chelate, applied through soil, foliar, fertigation, and hydroponics systems.

soluTE_{Mn}

Manganese-EDTA 13%

For the correction of Mg deficiency in plants. Directly affects photosynthesis by assisting the synthesis of chloroplasts. Increases growth of secondary roots. Stimulates growth due to effect on elongation of cells.

soluTE_{Mix}

Micronutrient Mix

Ideal source for correcting multiple micronutrient deficiencies in horticultural and agricultural crop. A mixture of highly soluble Zn, Fe, Mn, Cu as EDTA chelates along with B and Mo in high purity.

soluTE_B

Boron 20%

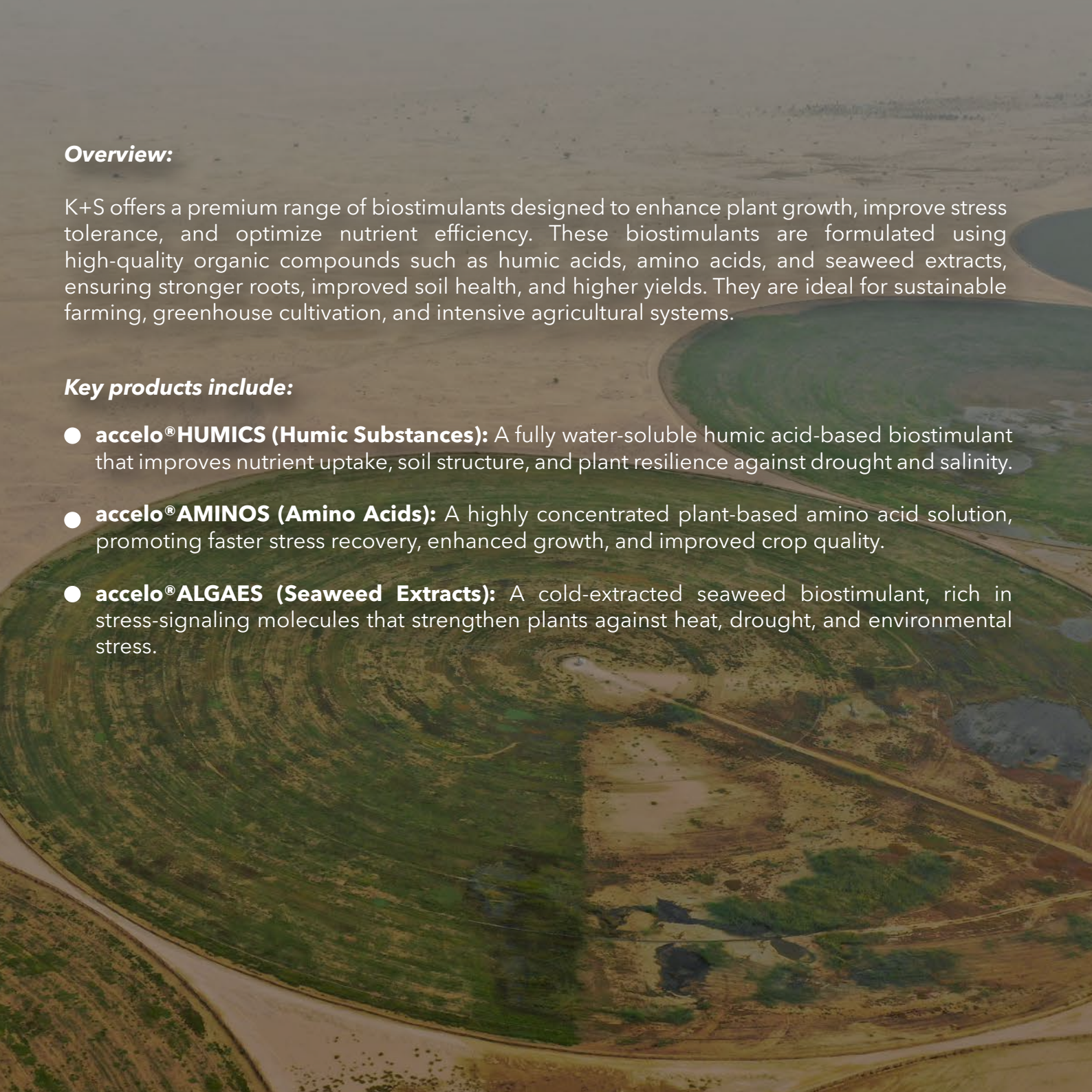
Suitable for horticulture and agricultural crops. Causes a direct and significant impact in crop nutrition, helps in the formation of cell walls, and in the transmission of sugars in the plant.



**K+S RA
BIOSTIM**

ANGE OF ULANTS





Overview:

K+S offers a premium range of biostimulants designed to enhance plant growth, improve stress tolerance, and optimize nutrient efficiency. These biostimulants are formulated using high-quality organic compounds such as humic acids, amino acids, and seaweed extracts, ensuring stronger roots, improved soil health, and higher yields. They are ideal for sustainable farming, greenhouse cultivation, and intensive agricultural systems.

Key products include:

- **accelo® HUMICS (Humic Substances):** A fully water-soluble humic acid-based biostimulant that improves nutrient uptake, soil structure, and plant resilience against drought and salinity.
- **accelo® AMINOS (Amino Acids):** A highly concentrated plant-based amino acid solution, promoting faster stress recovery, enhanced growth, and improved crop quality.
- **accelo® ALGAES (Seaweed Extracts):** A cold-extracted seaweed biostimulant, rich in stress-signaling molecules that strengthen plants against heat, drought, and environmental stress.

acceloHUMICS

The Smart Solution for Soil and Plant Health
Boosting Growth | Enhancing Quality | Maximizing Efficiency

80-85% Potassium Humates

68-73% Total Humic Acids

5-6% Fulvic Acid

12-14% Potassium (K_2O)

acceloHUMICS is a high-quality, fully water-soluble humic substance designed to enhance soil fertility, improve nutrient uptake, and boost plant resilience. Sourced and produced with German precision, it ensures optimal crop performance in various agricultural conditions.

- Improves Nutrient Availability
- Stimulates Root Development
- Enhances Soil Structure
- Stress Mitigation
- Boosts Microbial Activity
- Compatible & Versatile



KALISOLU



acceleAMINOS

The Natural Power of Amino Acids for Growth & Stress Recovery
Enhance Growth | Boost Resilience | Improve Quality

3% Total Nitrogen (N)
22% Total Amino Acids
20% Free Amino Acids

acceleAMINOS is a highly concentrated, fully plant-based amino acid biostimulant, designed to accelerate plant recovery, optimize nutrient uptake, and improve overall crop quality. It provides a balanced profile of essential amino acids to support vigorous plant development and higher yields.

- Faster Stress Recovery
- Stimulates Growth
- Enhances Crop Quality
- Optimizes Nutrient Uptake
- Boosts Natural Defense
- Rapid Absorption



KALISOLU



acceloALGAES

The Natural Power of Seaweed for Growth & Stress Resistance
Stimulate Growth, resist stress, improve quality

8-10% Dry Matter

Fresh and intact extraction from *Ascophyllum nodosum*

Rich in bioactive metabolites, stress-signaling compounds, and phenolic substances

acceloALGAES is a high-quality seaweed extract derived from *Ascophyllum nodosum*, a marine algae naturally adapted to extreme tidal stress. Using a cold sap extraction process, it preserves bioactive compounds, stress-signaling molecules, and vital nutrients, ensuring maximum plant benefits.

- Enhanced Stress Tolerance
- Rich in Bioactive Compounds
- Stronger Growth & Better Yield
- Fast Absorption & Versatile Use



KALISOLU









K plus S Middle East FZE DMCC

Office 410 - Indigo Tower Cluster D
Jumeirah Lakes Towers
Dubai, UAE - PO Box 337465
United Arab Emirates
+971 4 881 4720
www.ks-middleeast.com

Fertiliser related inquiries please email fertilisermena@k-plus-s.com
Industry related inquiries please email industrymena@k-plus-s.com
For Agronomy advisory please email agroadvisory@k-plus-s.com
For general Supply Chain and customer service topics
Customerservice.KSME@k-plus-s.com

