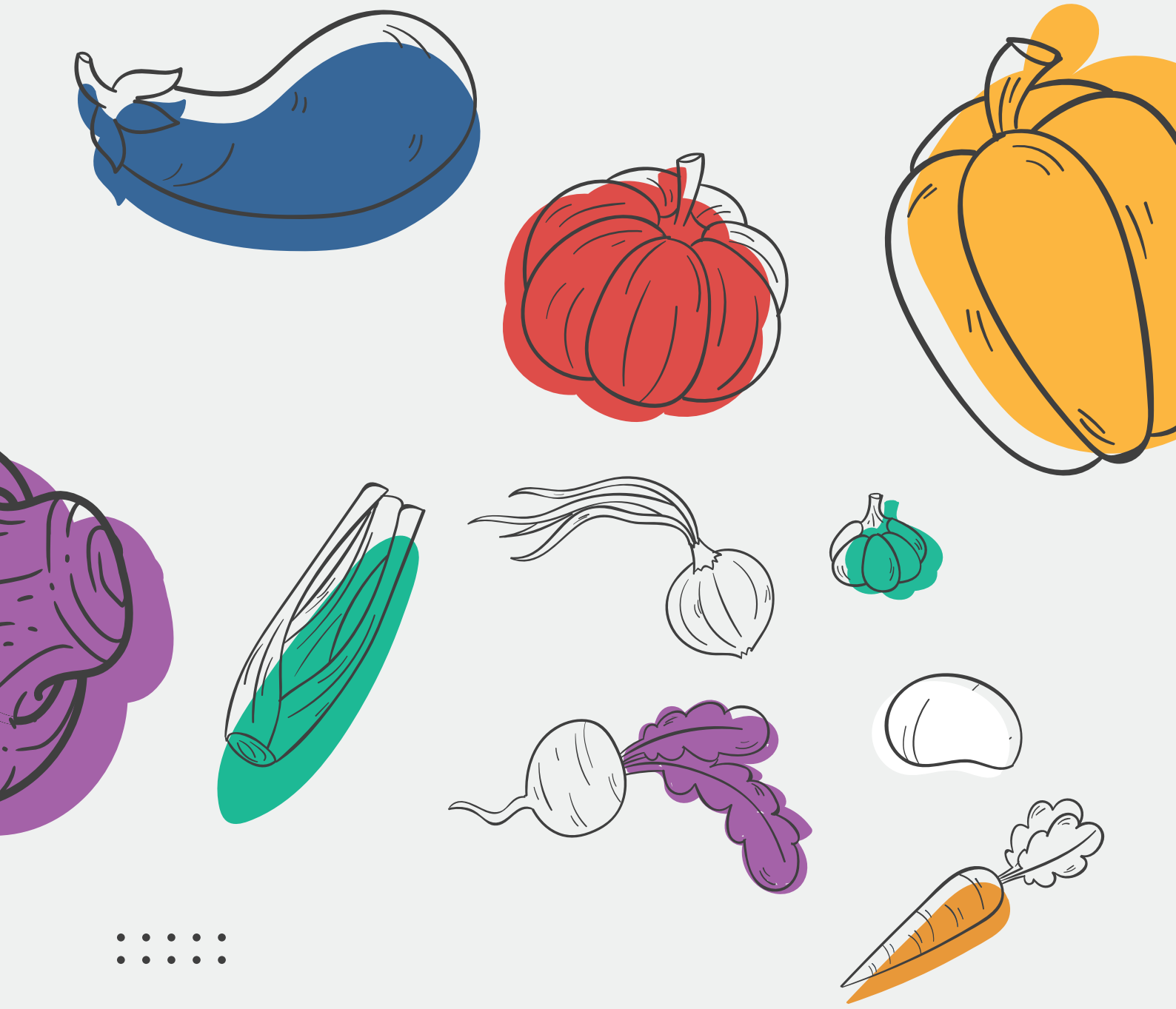


PRODUCT
CATALOGUE

Herma®
Agro-Chemical Products

ABOUT HERMA

HERMA Fertilizers was founded in one of Frances most productive agricultural districts. It features a manufacturing and storage facility for water-soluble fertilizers, granular fertilizers, liquid biostimulants, and pesticides.

Herma
Agro-Chemical Products

CONTENTS:

BIOSTIMULENTS

MICRONUTRIENTS

SOLID

GRANULAR

WATER-SOLUBLE

RAW-MATERIAL

Herma®
Agro-Chemical Products

BIOSTIMULENTS

Herma®

Agro-Chemical Products

Characteristics and features

Organic matter: the presence of organic matter in the root zone promotes healthy root growth, improves nutrient availability, enhances water retention and drainage, supports beneficial microbial activity, and contributes to soil fertility. It is an essential component for maintaining healthy plants and sustainable agriculture.

Free amino acids: are vital for root plants as they provide a nitrogen source, enhance stress tolerance, regulate hormone synthesis, support protein synthesis, act as signaling molecules, and participate in defense mechanisms. These functions are essential for the growth, development, and overall health of root plants

organic nitrogen: is vital for root development and plant growth. Its slow-release nature, nutrient availability, contribution to soil fertility and microbial activity, and positive environmental impact make it an important component of sustainable agriculture and healthy root systems.

Urea Nitrogen: Nitrogen from urea plays a significant role in supporting root growth and overall plant health
pH: 4.6 - 7.6: maintaining a pH range of 4.6 to 7.6 is important for roots because it influences nutrient availability, microbial activity, soil structure, and overall root health. By ensuring an appropriate pH level, plants can efficiently absorb nutrients, foster beneficial soil microbial communities, promote root growth, and achieve optimal productivity.

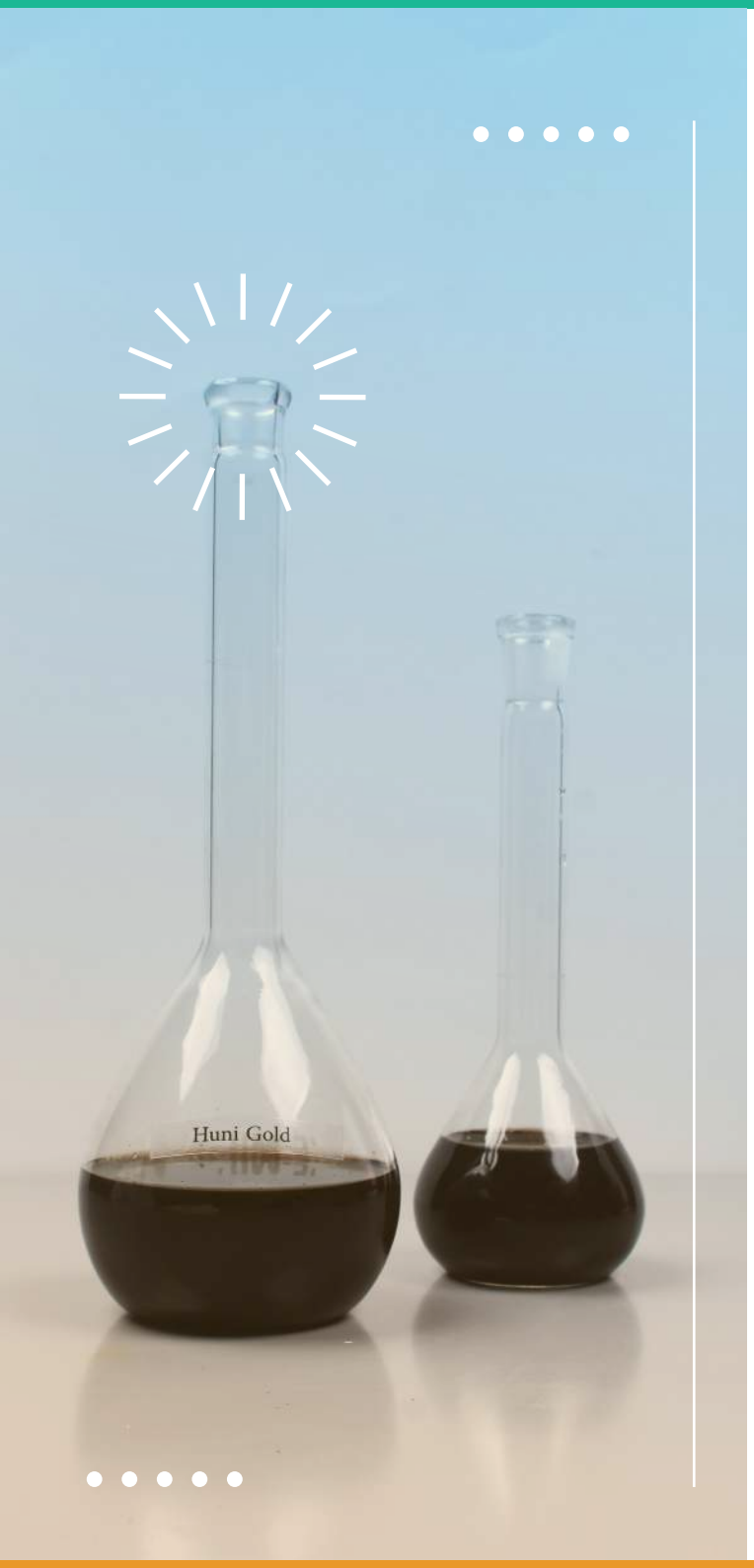
ROOTER

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	-	1lt-2lt/ha	Starting with young plants 2-3 application during the growth
INDUSTRIAL PLANTS	-	1lt-2lt/ha	Starting with young plants 2-3 application during the growth
OPEN FIELD VEGETABLES	10lt-30lt/ha	2lt-3lt/1m³water	Starting with planting during the growth
GREENHOUSE VEGETABLES	10lt-30lt/ha	2lt-3lt/1m³water	Starting with planting during the growth
FRUIT TREES	20lt-40lt/ha	2lt-3lt/1m³water	Starting with the vegatation untill the end of harvest
ORNAMENTALS	20lt-40lt/ha	2lt-3lt/1m³water	Starting with planting during the growth

COMPOSITION

	w/w
Organic Matter	**30%**
Free Aminoacids	**9%**
Total Nitrogen	**9%**
Organic Nitrogen	**5%**
Urea Nitrogen	**4%**
pH	**4.6-7.6**



Characteristics and features

Organic matter: By maintaining and enhancing organic matter levels in soils, farmers and gardeners can create a fertile and productive environment for plant growth. Practices such as incorporating organic amendments, practicing crop rotation, covercropping, and composting can help improve organic matter content and promote healthy and sustainable plant growth.

Organic matter: By maintaining and enhancing organic matter levels in soils, farmers and gardeners can create a fertile and productive environment for plant growth. Practices such as incorporating organic amendments, practicing crop rotation, cover cropping, and composting can help improve organic matter content and promote healthy and sustainable plant growth.

Fulvic acid: fulvic acid is important for promoting nutrient availability, nutrient uptake efficiency, plant metabolism, soil structure, stress tolerance, and microbial activity. Its application as a soil amendment or through fulvic acidbased fertilizers can contribute to improved plant growth, yield, and sustainability in agriculture.

Water soluble K2O: It›s essential for proper plant growth, nutrient uptake, osmotic regulation, enzyme activation, protein synthesis, carbohydrate metabolism, disease resistance, and fruit quality. Ensuring an adequate supply of potassium is crucial for optimizing plant health, productivity, and overall crop performance.

pH 11-13: The pH level of alkaline soil is above 7, and it usually contains a great deal of sodium, calcium, and magnesium.

HUNI GOLD

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD	
	DRIP	FOLIAR	DRIP	FOLIAR
GRAINS	5lt-20lt/ha	1lt-2lt/ha	After soil preparation during the growth period	After sowing during the growth and miscible with fertilizers and herbicides
INDUSTRIAL PLANTS	5lt-20lt/ha	1lt-2lt/ha	After soil preparation during the growth period	After sowing during the growth and miscible with fertilizers and herbicides
OPEN FIELD VEGETABLES	10lt-20lt/ha	1lt-2lt/1m³water	During the growth period	After planting during flowering,vegetation and fruit development
GREENHOUSE VEGETABLES	10lt-20lt/ha	1lt-2lt/1m³water	Starting with the planting interval 15 days during the all stages	After planting during flowering,vegetation and fruit development
FRUIT TREES	10lt-20lt/ha	1lt-2lt/1m³water	Starting with the vegatative activation during the growth	Starting with vegatation during flowering, vegetation and fruit development
ORNAMENTALS	10lt-20lt/ha	1lt-2lt/1m³water	Starting with the planting interval 15 days during the all stages	During all the vegetation period
SUGARBEET	10lt-20lt/ha	1lt-2lt/1m³water	Within the soil preparation	First application 4-6 leaves Second application at grubbing

COMPOSITION

	w/w
Total Organic Matter	**15%**
Total Humic + Fulvic Acid	**20%**
Water Soluble (K20)	**4%**
pH	**11-3**

Characteristics and features

Polyoxyethylene Tridecyl Phosphate Ester (PTPE) is a surfactant that is occasionally used in various cleaning formulations, including those used for cleaning tanks in agricultural settings. Surfactants are compounds that help in reducing the surface tension between liquids and solids, allowing for better wetting, spreading, and cleaning capabilities.

Tricarboxylic acids: such as citric acid, can be used in agriculture for cleaning and descaling water tanks. Agricultural water tanks can accumulate mineral deposits, algae, and other residues over time, which can affect water quality and clog irrigation systems. Tricarboxylic acids can help remove these deposits and maintain clean water tanks.

HERMA LIFE

DOSAGE

DOSAGES		APPLICATION PERIOD
DRIP	**FOLIAR**	
-	0,25lt-1lt/1m³water	For cleaning the tank and nozzles, reducing the pH, spreader stick purposes.
10lt/ha with 500lt water	-	Aerates the soil structure for pre-transplanting applications

COMPOSITION

	w/w
Polyoxyethylene Tridecyl Phosphate Ester	**40%**
Tricarboxylic Acids	**30%**
Constituents Ineffective as Spray Adjuvants	**30%**

Characteristics and features

organic matter: content in fertilizers, including a 20% organic matter content, contributes to improved nutrient availability, soil structure, water retention, microbial activity, and longterm soil fertility, thereby supporting healthy plant growth and sustainable agriculture.

3% organic nitrogen: in nitrogen fertilizers offers benefits such as slow nutrient release, reduced nitrogen losses, improved soil health, enhanced nutrient synergies, support for sustainable agriculture, and long-term soil fertility. These advantages contribute to efficient nutrient use, environmental sustainability, and improved plant growth and productivity.

3% free amino acids: in fertilizers can contribute to nutrient supply, stress tolerance, growth promotion, nutrient uptake efficiency, microbial interactions, and early plant development. These benefits can help enhance plant performance, yield potential, and overall crop productivity.

7% organic carbon in fertilizers can improve soil fertility, nutrient availability, soil structure, water retention, microbial activity, and carbon sequestration. These benefits support healthy plant growth, sustainable agriculture, and the long-term health of soils.

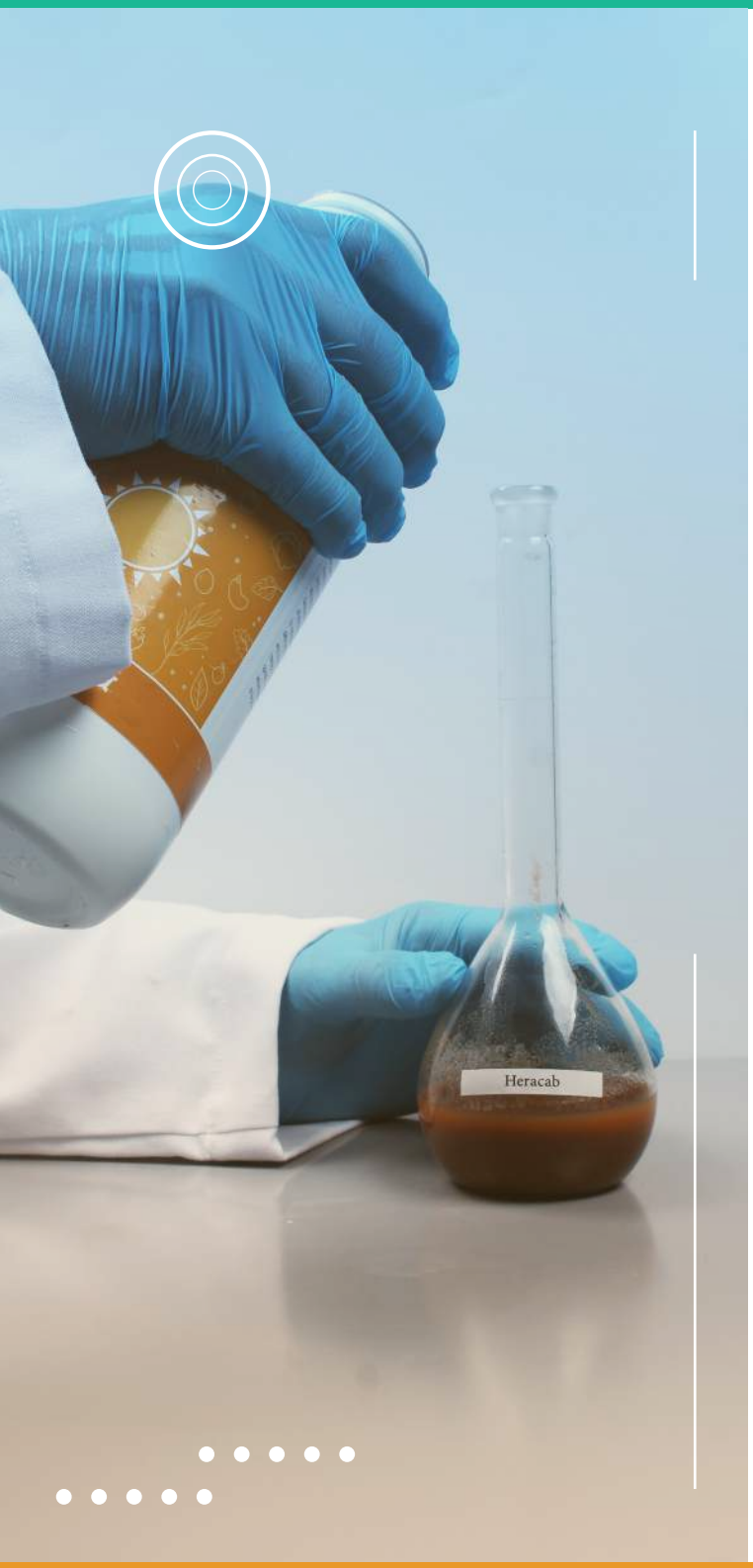
HERMAX

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	-	0,5lt-0,7lt/1m³water	Starting with 10-15 height interval 2 weeks.
INDUSTRIAL PLANTS	-	0,5lt-0,7lt/1m³water	Starting with 10-15 height interval 2 weeks.
OPEN FIELD VEGETABLES	2,5lt-5lt/ha	0,5lt-0,7lt/1m³water	After transplanting interval 2 weeks.
GREENHOUSE VEGETABLES	2,5lt-5lt/ha	0,5lt-0,7lt/1m³water	After transplanting interval 2 weeks.
FRUIT TREES	-	0,5lt-0,7lt/1m³water	Beginning of bud formation, fruit setting and fruit development.
ORNAMENTALS	-	0,5lt-0,7lt/1m³water	After transplanting interval 2 weeks.

COMPOSITION

	w/w
Organic Matter	20%
Free Aminoacids	3%
Organic Nitrogen	3%
Organic Carbon	7%
pH	6-8



Characteristics and features

2% organic nitrogen: in fertilizers offers benefits such as slow nutrient release, improved nutrient efficiency, enhanced soil health, reduced environmental impact, beneficial microbial interactions, and support for sustainable agriculture. These advantages contribute to efficient nutrient use, environmental sustainability, and improved plant growth and productivity.

6% nitrate nitrogen: in fertilizers offers benefits such as immediate nutrient availability, high nutrient efficiency, balanced plant nutrition, pH buffering, water uptake regulation, enhanced crop quality, and improved crop yield and productivity. These advantages support healthy plant growth, maximize agricultural output, and contribute to sustainable and efficient nutrient management practices.

4% free amino acids: in fertilizers offers benefits such as readily available nitrogen, rapid nutrient uptake, stress resistance, protein synthesis, enzyme activity, hormone synthesis, enhanced nutrient uptake, and improved crop quality. These advantages support healthy plant growth, optimize nutrient utilization, and contribute to the overall productivity and quality of agricultural crops.

0.2% water-soluble: boron in fertilizers offers benefits such as providing an essential micronutrient, supporting pollination and reproduction, promoting cell wall formation, facilitating nutrient uptake and transport, regulating hormones, enhancing disease resistance, and improving crop yield and quality. These advantages contribute to healthy plant growth, reproductive success, and overall plant productivity.

10% water-soluble CaO in fertilizers offers benefits such as providing an essential nutrient for plant structure, promoting nutrient uptake and transport, activating enzymes, maintaining cell membrane function, enhancing disease and pest resistance, improving fruit quality, and supporting overall plant health and growth. These advantages contribute to the development of strong, healthy plants with improved productivity and quality.

HERACAB

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	10lt-30lt/ha	2lt-3lt/1m³water	Early stages of vegetation, during the vegetation 2 times
INDUSTRIAL PLANTS	10lt-30lt/ha	2lt-3lt/1m³water	Early stages of vegetation, during the vegetation 2 times
OPEN FIELD VEGETABLES	10lt-30lt/ha	2lt-3lt/1m³water	Early stages of vegetation against to softening and cracking
GREENHOUSE VEGETABLES	10lt-30lt/ha	2lt-3lt/1m³water	Early stages of vegetation against to softening and cracking
FRUIT TREES	10lt-30lt/ha	2,5lt/1m³water	After fruit setting, fruit development stages 2-3 times
ORNAMENTALS	10lt-30lt/ha	2,5lt/1m³water	During the vegetation

COMPOSITION

	w/w
Organic Matter	**15%**
Total Nitrogen	**8%**
Organic Nitrogen	**2%**
Nitrate Nitrogen	**6%**
Free Aminoacids	**4%**
Water Soluble Boron (B)	**0,2%**
Water Soluble (CaO)	**10%**
pH	**4-6**

Characteristics and features

including 20% water-soluble K2O in fertilizers offers benefits such as providing an essential macronutrient, supporting photosynthesis and energy production, facilitating water and nutrient uptake, activating enzymes and protein synthesis, maintaining cell turgor and stomatal regulation, enhancing diseaseand pest resistance, and improving fruit quality and yield. These advantages contribute to healthy plant growth, improved productivity, and overall plant health

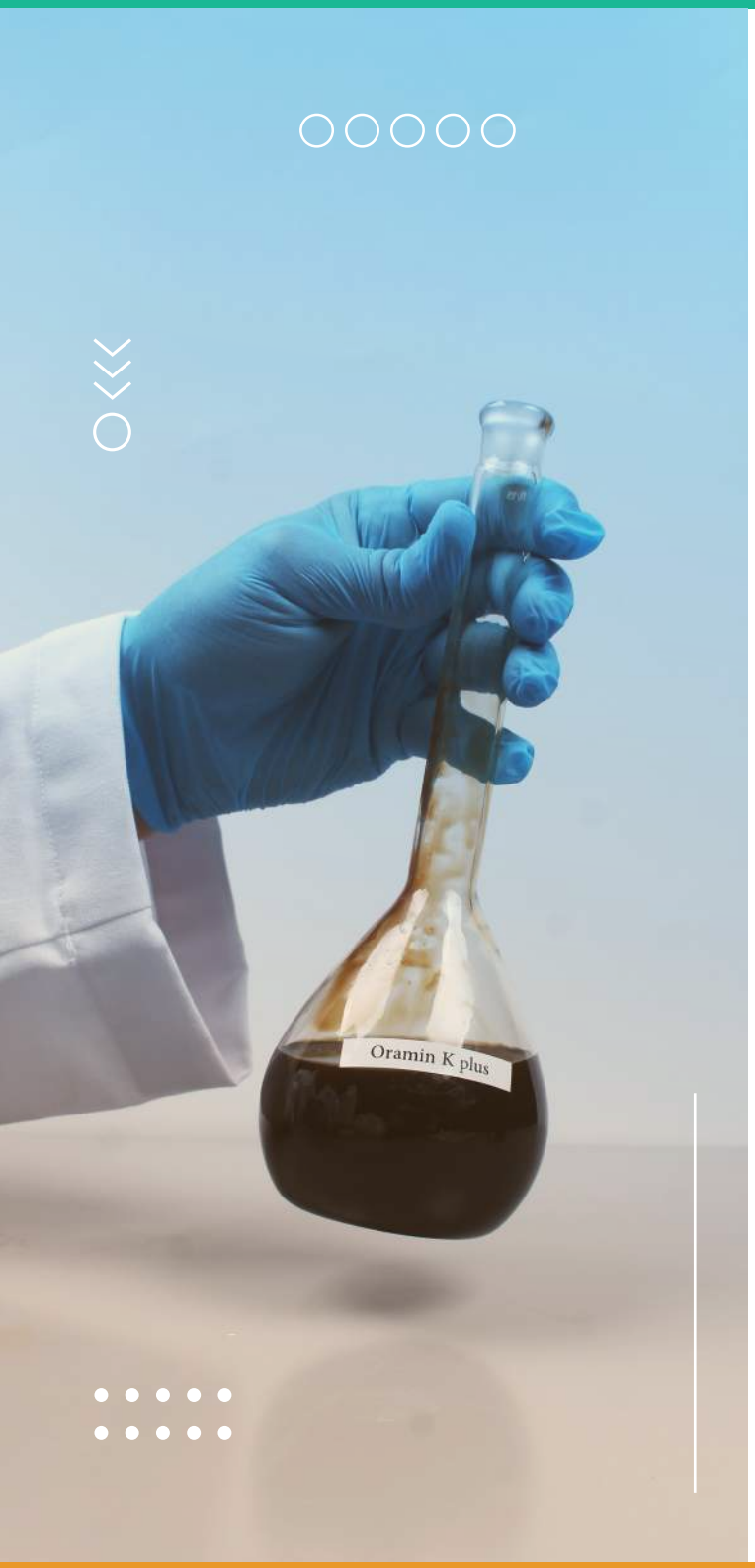
NUTRIPOWER

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	20lt-40lt/ha	2lt-3lt/1m³water	Fruit formation and ripening
INDUSTRIAL PLANTS	20lt-40lt/ha	2lt-3lt/1m³water	Fruit formation and ripening
OPEN FIELD VEGETABLES	10lt-30lt/ha	2lt-3lt/1m³water	Fruit formation and ripening
GREENHOUSE VEGETABLES	10lt-30lt/ha	2lt-3lt/1m³water	Fruit formation and ripening
FRUIT TREES	20lt-30lt/ha	2lt-3lt/1m³water	Fruit formation and ripening
ORNAMENTALS	10lt-20lt/ha	1lt-2lt/1m³water	Fruit formation and ripening

COMPOSITION

	w/w
Water Soluble Potassium Oxide (K2O)	**26%**



Characteristics and features

Fertilizers with higher water-soluble K2O percentages (50%) are often preferred for quick-release or immediate nutrient availability. They can provide a rapid supply of potassium to plants, especially in cases where potassium deficiencies are observed or when plants require an extra boost of this nutrient during critical growth stages.

ORAMIN K PLUS

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	20lt-40lt/ha	2lt-3lt/1m³water	Fruit formation and ripening
INDUSTRIAL PLANTS	20lt-40lt/ha	2lt-3lt/1m³water	Fruit formation and ripening
OPEN FIELD VEGETABLES	10lt-30lt/ha	2lt-3lt/1m³water	Fruit formation and ripening
GREENHOUSE VEGETABLES	10lt-30lt/ha	2lt-3lt/1m³water	Fruit formation and ripening
FRUIT TREES	20lt-30lt/ha	2lt-3lt/1m³water	Fruit formation and ripening
ORNAMENTALS	10lt-30lt/ha	1lt-2lt/1m³water	Flower formation and harvest

COMPOSITION

	w/w
Water Soluble Potassium Oxide (K2O)	**35%**

Characteristics and features

Urea nitrogen: promotes vegetative growth in plants. It supports the development of leaves, stems, and roots, contributing to overall plant size and biomass.

Balancing nutrient levels in the soil is essential for optimal plant growth. Phosphorus, along with other essential nutrients like nitrogen (N) and potassium (K), is necessary for maintaining this balance. A fertilizer with 30% P2O5 can be combined with other fertilizers to provide a comprehensive nutrient supply tailored to specific plant needs.

Zinc is an essential micronutrient for plants, and adequate levels are necessary for their growth and development. Plants require zinc for various physiological processes, including enzyme activation, protein synthesis, chlorophyll formation, and hormone regulation.

A fertilizer with 30% P2O5 can help correct phosphorus deficiencies in the soil, ensuring plants have sufficient access to this vital nutrient.

STRESS BUSTER

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	30lt-40lt/ha	2lt/1m³water	Tillering period
INDUSTRIAL PLANTS	30lt-40lt/ha	2lt/1m³water	Before flowering.
OPEN FIELD VEGETABLES	30lt-40lt/ha	2lt/1m³water	After transplanting during flowering
GREENHOUSE VEGETABLES	30lt-40lt/ha	2lt/1m³water	After transplanting during flowering.
FRUIT TREES	30lt-40lt/ha	2,5lt/1m³water	Before buds opening, before blossoming
PERIOD	30lt-40lt/ha	2lt/1m³water	After transplanting and tillering preiod.

COMPOSITION

	w/w
Total Nitrogen (N)	3%
Urea Nitrogen (N)	3%
Water Soluble Phosporus Penta-Oxide (P205)	30%
Water Soluble Zinc (Zn)	8%

MICRONUTRIENTS

Herma®

Agro-Chemical Products

Characteristics and features

By incorporating liquid fertilizers with a **high organic matter** content, you can improve soil fertility, enhance plant growth, and promote sustainable agricultural practices.

Free amino acids in liquid fertilizers serve as a source of organic nitrogen, however Free amino acids can play a role in enhancing plant tolerance to various types of stress, including drought, temperature extremes, and disease.

Nitrogen is one of the primary macronutrients required by plants for their growth and metabolic processes. It plays a vital role in various plant functions, including chlorophyll production, photosynthesis, protein synthesis, and overall plant structure.

Maintaining a **pH range of 6-8** in liquid fertilizers is important for several reasons:

- pH plays a vital role in regulating theactivity of soil microorganisms, such as bacteria and fungi, which are important fornutrient cycling and soil health.

- pH plays a vital role in regulating theactivity of soil microorganisms, such as bacteria and fungi, which are important fornutrient cycling and soil health. Manybeneficial soil microbes thrive within thepH range of 6-8. These microorganismscontribute to organic matterdecomposition, nutrient availability, and disease suppression

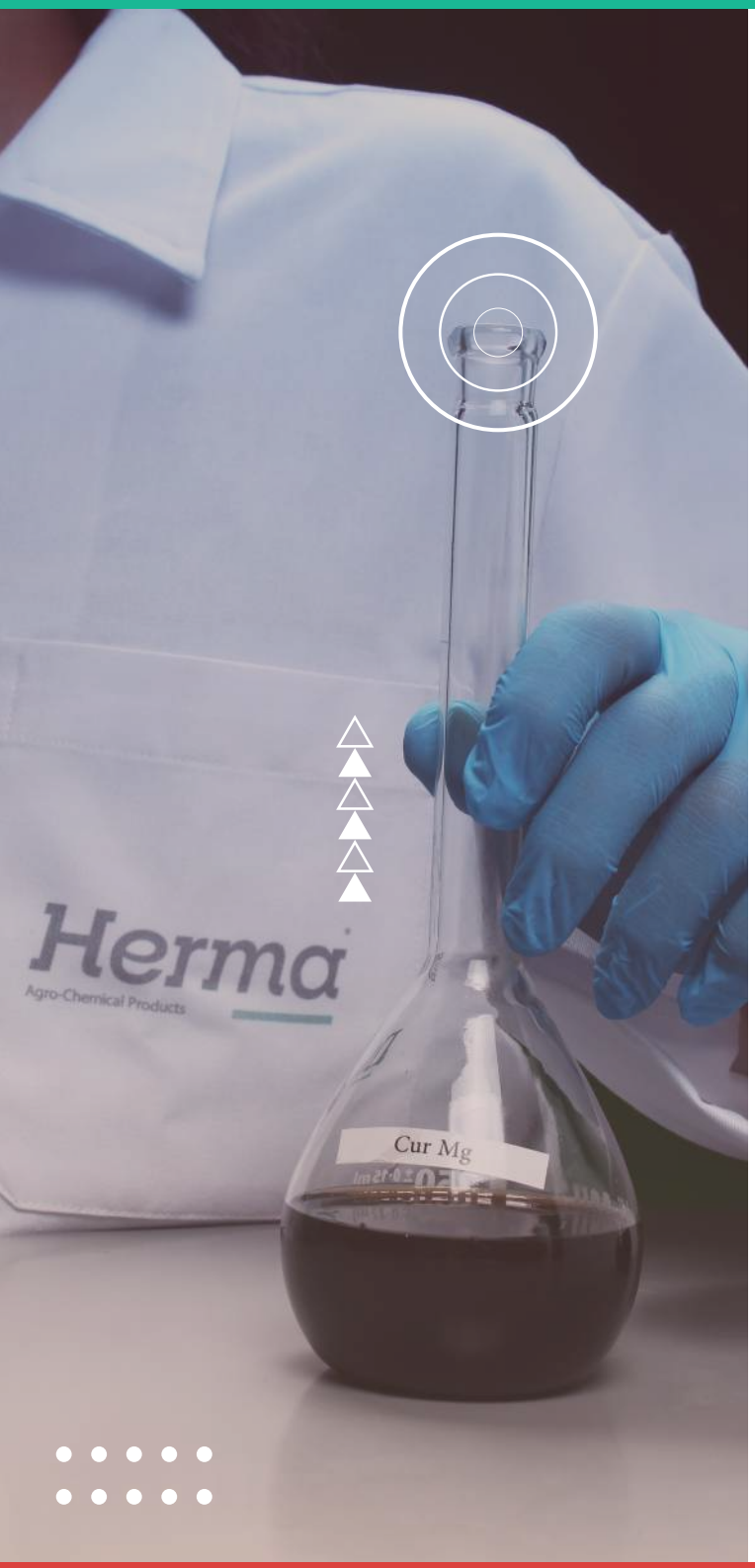
SEAMAX

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	20lt-40lt/ha	1lt-2lt/1m³water	Starting with sowing, during growth.
INDUSTRIAL PLANTS	20lt-40lt/ha	2lt-3lt/1m³water	4-6 leaves period, during growth.
OPEN FIELD VEGETABLES	10lt-20lt/ha	2lt-3lt/1m³water	Starting with transplanting, during growth.
GREENHOUSE VEGETABLES	10lt-20lt/ha	2lt-3lt/1m³water	Starting with transplanting, during growth.
FRUIT TREES	20lt-40lt/ha	2lt-3lt/1m³water	During growth mixable with all other applications.
ORNAMENTALS	20lt-40lt/ha	2lt-3lt/1m³water	Once a week during the growth.

COMPOSITION

	w/w
Organic Matter	**45%**
Total Nitrogen (N)	**8%**
Urea Nitrogen	**1%**
Organic Nitrogen	**7%**
Free Aminoacids	**7%**
pH	**6-8**



Characteristics and features

Nitrogen is a vital nutrient for plant growth, it permits a Rapid nutrient uptake, a Balanced nutrition, An efficient energy production, and by providing 6% nitrate nitrogen, liquid fertilizers contribute to the synthesis of proteins, supporting plant structure and function

- **0.05% molybdenum** in liquid fertilizers, you can ensure that plants have sufficient molybdenum levels to support nitrogen fixation.
and Adequate molybdenum levels help activate these enzymes and promote efficient metabolic reactions within plants.

- **0.05% molybdenum** in liquid fertilizers, you can support optimal reproductive processes and promote healthy seed development

Magnesium (Mg) is an essential nutrient for plant growth and development.

- By providing 10% water-soluble MgO, fertilizers can help ensure sufficient magnesium supply for the production of chlorophyll, which is vital for plant energy production and overall growth.

- Including 10% water-soluble MgO in fertilizers, you can help improve nutrient uptake efficiency and enhance the overall nutrient balance within plants.

- Adequate level of Mg cancan enhance the plant›s ability to tolerate drought, high temperatures, and other stress factors (like plants ability to resist pathogens and other stressors.)

CUR MG.

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	30lt-50lt/ha	2,5lt-10lt/1m³water	After fruit setting 3-4 application interval interval 10 days
INDUSTRIAL PLANTS	30lt-50lt/ha	2,5lt-10lt/1m³water	After fruit setting 3-4 application interval interval 10 days
OPEN FIELD VEGETABLES	30lt-50lt/ha	2,5lt-10lt/1m³water	After fruit setting 3-4 application interval interval 10 days
GREENHOUSE VEGETABLES	30lt-50lt/ha	2,5lt-10lt/1m³water	After fruit setting 3-4 application interval interval 10 days
FRUIT TREES	30lt-50lt/ha	2,5lt-10lt/1m³water	After fruit setting 3-4 application interval interval 10 days
ORNAMENTALS	30lt-50lt/ha	2,5lt-10lt/1m³water	After fruit setting 3-4 application interval interval 10 days

COMPOSITION

	w/w
Nitrate Nitrogen	**6%**
Water Soluble Magnesium Okside (Mg0)	**10%**
Water soluble Molibdenum (Mo)	**0.05%**

Characteristics and features

- **5% water-soluble boron:** can be easily absorbed and utilized by plants.

- Adequate boron levels promote cell elongation and division, contributing to proper plant growth and development.

- Boron is involved in the reproductive processes of plants,
particularly in pollination and seed development. It influences pollen tube growth, pollen germination, and the fertilization of ovules.

- Boron contributes to energy production, storage, and overall carbohydrate balance in plants.

- Boron enhance the plant›s defense mechanisms against certain diseases and stresses

- **Zinc** plays a vital role in enzyme structure and function, influencing reactions such as carbohydrate metabolism, protein synthesis, and DNA synthesis.

- **Zinc** is essential for proper plant growth and development.

- **Zinc** promoting optimal plant growth, and coordinating various physiological processes.

- **Zinc** strengthen cell walls, enhancing the plants defense mechanisms against pathogens and pests.

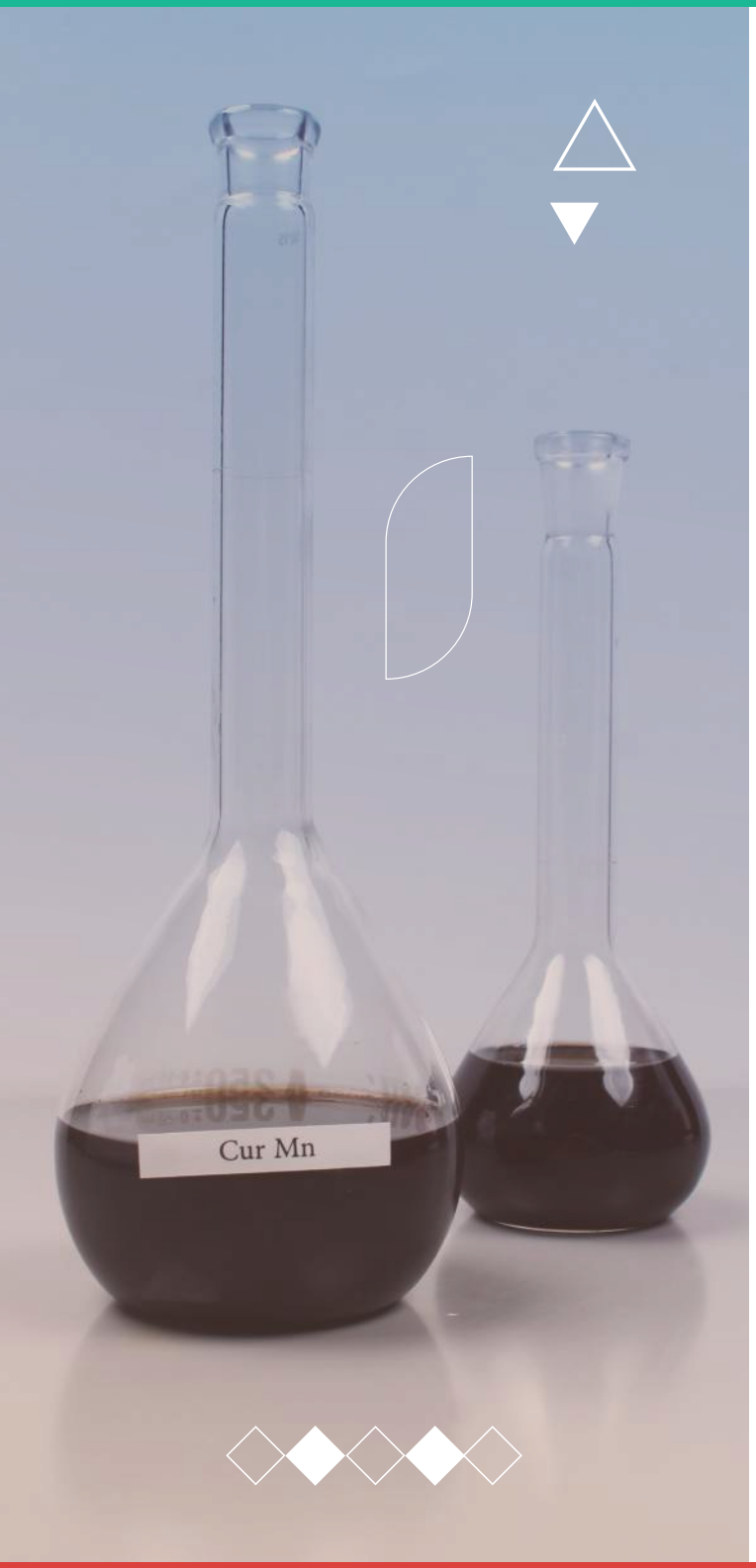
CUR ZN.

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	-	0,8lt-1lt/1m³water	Tillering period
INDUSTRIAL PLANTS	3lt-5lt/ha	0,8lt-1lt/1m³water	4-6 leaves period.
OPEN FIELD VEGETABLES	3lt-5lt/ha	1lt-2lt/1m³water	After transplanting interval 20-25 days
GREENHOUSE VEGETABLES	3lt-5lt/ha	1lt-1,5lt/1m³water	After transplanting interval 20-25 days.
FRUIT TREES	5lt-15lt/ha	1lt-2lt/1m³water	Before and after flower setting, after harvest
ORNAMENTALS	3lt-5lt/ha	1lt-1,5lt/1m³water	During vegetation.

COMPOSITION

	w/w
Water Soluble Boron (B)	**5%**
Water Soluble Zinc (Zn)	**5%**



Characteristics and features

20% organic matter with Mn and free aminao acids can facilitate the transport of manganese across cell membranes and enhance its utilization within plant tissues. This can improve nutrient absorption efficiency and support various metabolic processes in plants.

- Free amino acids in liquid fertilizers can contribute to plant stress tolerance and resilience

- Organic matter serves as a source of carbon and energy for soil microorganisms, supporting their growth and activity. The decomposition of organic matter releases nutrients, and the presence of free amino acids can facilitate nutrient mineralization and conversion into plant-available forms.

- The presence of organic matter, manganese, and free amino acids in liquid fertilizers can promote overall plant growth and development.

- Amino acids help facilitate nutrient uptake and assimilation, ensuring that the applied manganese and other nutrients are effectively utilized by plants. This can reduce nutrient losses through leaching or immobilization in the soil, making the fertilization more efficient and cost-effective.

CUR MN.

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	-	1lt-2lt/1m³water	When plant height becomes 15-20 cm
INDUSTRIAL PLANTS	4lt/ha	1lt-2lt/1m³water	6-8 leaves period 3 application interval 20 days
OPEN FIELD VEGETABLES	3lt/ha	1lt-2lt/1m³water	Fruit setting, color formation, ripening
GREENHOUSE VEGETABLES	3lt/ha	1lt-2lt/1m³water	Fruit setting, color formation, ripening
FRUIT TREES	2,5lt-3lt/ha	1lt-2lt/1m³water	Flowering, 2-3 weeks after fruit setting, 3-4 weeks before harvest
ORNAMENTALS	4lt-5lt/ha	1lt-2lt/1m³water	Flower bud formation, 1 week before harvest

COMPOSITION

	w/w
Organic Matter	**30%**
Free Aminoacids	**9%**
Total Nitrogen	**9%**
Organic Nitrogen	**5%**
Urea Nitrogen	**4%**
pH	**4.6-7.6**

Characteristics and features

• Combined with calcium in liquid fertilizers, organic matter can help improve the availability and uptake of calcium by plants. The organic matter acts as a reservoir for nutrients, including calcium, releasing them gradually as the plants require them.

• Calcium is involved in the movement of other nutrients within plants. It facilitates the transport of nutrients from the roots to the shoots, promoting their distribution and utilization in various plant tissues.

• Calcium plays a crucial role in fruit development and quality. It contributes to the formation and strength of cell walls in fruits, leading to improved texture and reduced susceptibility to storage disorders and physiological disorders like blossom end rot in tomatoes and bitter pit in apples.
Calcium can help regulate soil pH. It acts as a counterion to balance the acidity of soils, contributing to pH stability and providing an optimal pH range for plant growth.

• Liquid fertilizers with 15% organic matter and calcium can help maintain a favorable soil pH, promoting overall plant health and nutrient utilization.

• Calcium is more soluble and readily available to plants in a pH range of 4-6. By adjusting the pH of liquid fertilizers within this range, you can enhance the availability of calcium to plants, ensuring they have an adequate supply of this essential nutrient.

• Maintaining the pH of liquid fertilizers within the range of 4-6 is crucial for optimal nutrient uptake and root health.

CUR CA.

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	10lt-30lt/ha	2lt-3lt/1m³water	Early stages of vegetation, during the vegetation 2 times
INDUSTRIAL PLANTS	10lt-30lt/ha	2lt-3lt/1m³water	Early stages of vegetation, during the vegetation 2 times
OPEN FIELD VEGETABLES	10lt-30lt/ha	2lt-3lt/1m³water	Early stages of vegetation against to softening and cracking
GREENHOUSE VEGETABLES	10lt-30lt/ha	2lt-3lt/1m³water	Early stages of vegetation against to softening and cracking
FRUIT TREES	10lt-30lt/ha	2,5lt/1m³water	After fruit setting, fruit development stages 2-3 times
ORNAMENTALS	10lt-30lt/ha	2,5lt/1m³water	During the vegetation

COMPOSITION

	w/w
Organic Matter	**15%**
Total Nitrogen	**8%**
Organic Nitrogen	**2%**
Nitrate Nitrogen	**6%**
Free Aminoacids ee	**4%**
Water Soluble Boron (B)	**0,2%**
Water Soluble (CaO)	**10%**
pH	**4-6**

Characteristics and features

• A sufficient supply of boron through liquid fertilizers, you can ensure that plants have access to this essential micronutrient for proper growth and development.

• boron levels promote proper seed development, leading to improved fruit set and seed production. By ensuring sufficient boron levels through liquid fertilizers, you can enhance cell wall development and strengthen the overall structure of plants.

• Adequate boron levels can enhance nutrient uptake and improve nutrient use efficiency, leading to better overall plant health and productivity.
Boron plays a role in enhancing plant defenses against diseases and stress conditions.

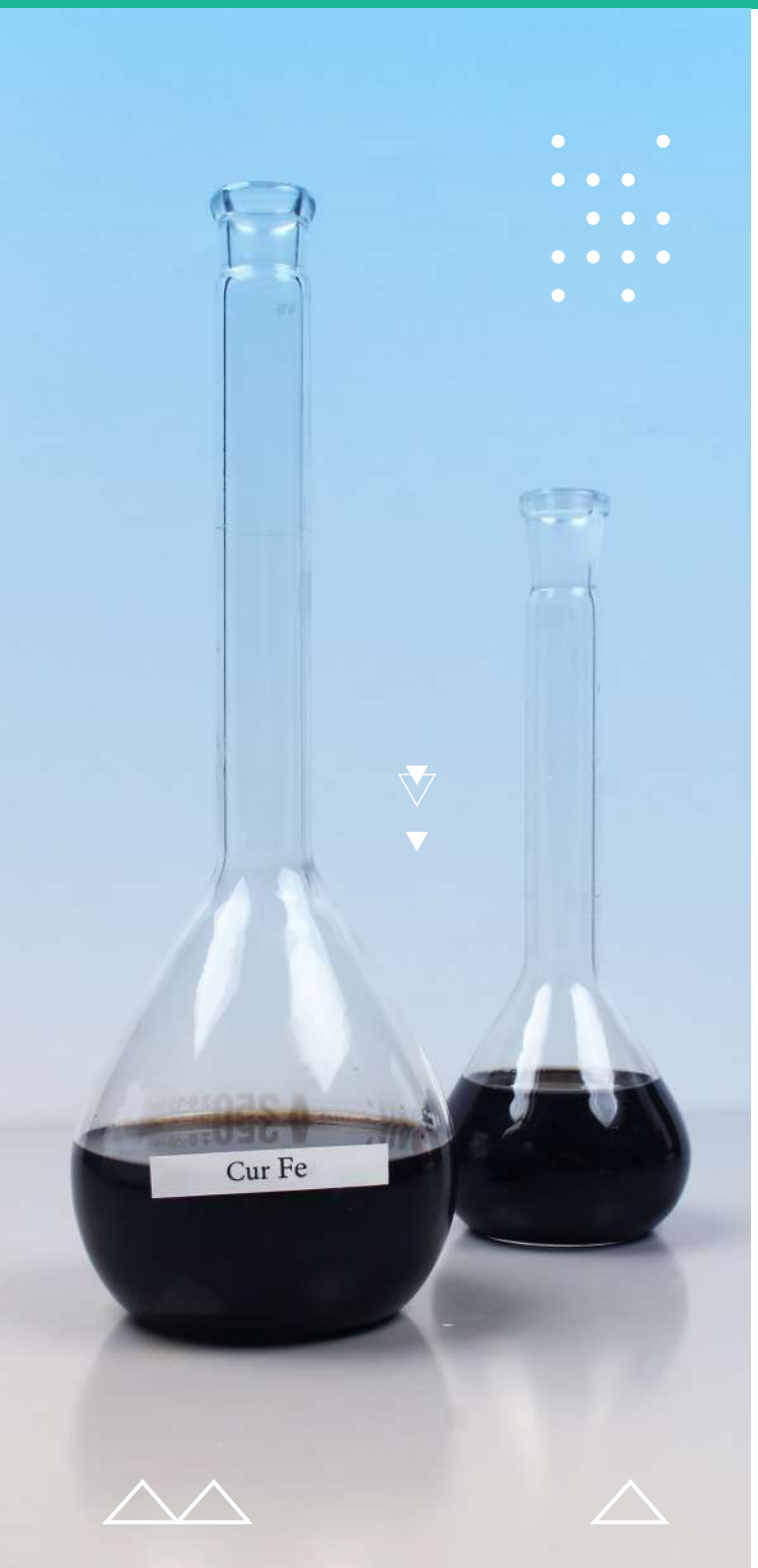
CUR B.

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
INDUSTRIAL PLANTS	3lt-4lt/ha	1lt-1,5lt/1m³water	4-6 leaves period
OPEN FIELD VEGETABLES	3lt-4lt/ha	1lt-1,5lt/1m³water	Before flowering and 2-3 application interval 20 days.
GREENHOUSE VEGETABLES	3lt-4lt/ha	0,6lt-1,5lt/1m³water	Before flowering and 2-3 application interval 20 days.
FRUIT TREES	3lt-4lt/ha	1lt-1,5lt/1m³water	Before and after flowering, fruit development, fruit sizing.
ORNAMENTALS	3lt-4lt/ha	1lt-1,5lt/1m³water	During the growth

COMPOSITION

	w/w
Water Soluble Boron (B)	**11%**



Characteristics and features

Iron chelate (8.8%) in liquid fertilizers helps ensure an adequate supply of iron for plants, promoting healthy growth, chlorophyll production, enzyme activity, stress tolerance, and preventing iron deficiency-related issues.

4.4% amide nitrogen in liquid fertilizers, along with iron, can provide plants with an accessible nitrogen source and promote nutrient uptake and utilization. The combination of amide nitrogen and iron can contribute to balanced nutrition, improved growth, chlorophyll synthesis, and overall plant health

sulfur trioxide 12% sulfur trioxide, typically in the form of sulfuric acid, in liquid fertilizers provides a concentrated and readily available source of sulfur for plants. Sulfur is essential for various metabolic processes and plays a role in nutrient uptake, pH adjustment, and overall plant health.nutrition and overall plant health.

liquid fertilizers with a **pH of 3** in the presence of sulfur trioxide can be used for soil acidification, nutrient availability, pH adjustment in hydroponic systems, and as acidic foliar sprays.

CUR FE.

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
Vegetables	3lt/ha	2lt/ha	Vegetables
Fruits	6lt/ha	4lt/ha	Early growth
Cereals	9lt/ha	6lt/ha	Flowering and Fruiting
Ornamentals	3lt/ha	2lt/ha	Post-harvest

COMPOSITION

	w/w
Iron Chelate (Fe)	**8.8%**
Total Nitrogen (N)	**4.4%**
(amide Nitrogen)	
Sulfur trioxide water soluble (SO3)	**12%**
pH	**3**
Density	**1.36kg/ml**

SOLID

Herma®
Agro-Chemical Products

Characteristics and features

Enhanced Iron Availability: Ortho-ortho isomers act as chelating agents, which means they bind to iron ions and help keep them in a soluble and readily available form for plant uptake,
A fertilizer with 6% iron with ortho-ortho isomers is important for plants as it enhances iron availability, prevents and corrects iron deficiencies, promotes chlorophyll synthesis, increases enzymatic activity, and ultimately contributes to optimal plant health and productivity.
Enhanced Iron Availability: Ortho-ortho isomers act as chelating agents, which means they bind to iron ions and help keep them in a soluble and readily available form for plant uptake,

1-Importance of 3.2% ortho-ortho isomer:
Adequate Iron Chelation: A fertilizer with 3.2% ortho-ortho isomer still provides a significant level of chelation, ensuring adequate iron availability for plants. This percentage can be effective in most soil conditions and for crops with moderate iron requirements. It strikes a balance between iron stability and cost-effectiveness.

2-Importance of 4.8% ortho-ortho isomer:
Improved Iron Uptake: A fertilizer with 4.8% ortho-ortho isomer offers a higher concentration of chelating ligands, leading to improved iron uptake by plants. This percentage is particularly advantageous for crops with higher iron demands or in soils with conditions that hinder iron availability, such as alkaline or calcareous soils.

3-Importance of 5.2% ortho-ortho isomer:
Enhanced Iron Stability: A fertilizer with 5.2% ortho-ortho isomer provides the highest concentration of chelating ligands, maximizing iron stability. This percentage is beneficial for soils with extremely challenging conditions where iron is prone to precipitation and becoming unavailable. It ensures a high level of iron solubility and accessibility for plant uptake.

HERMAFER

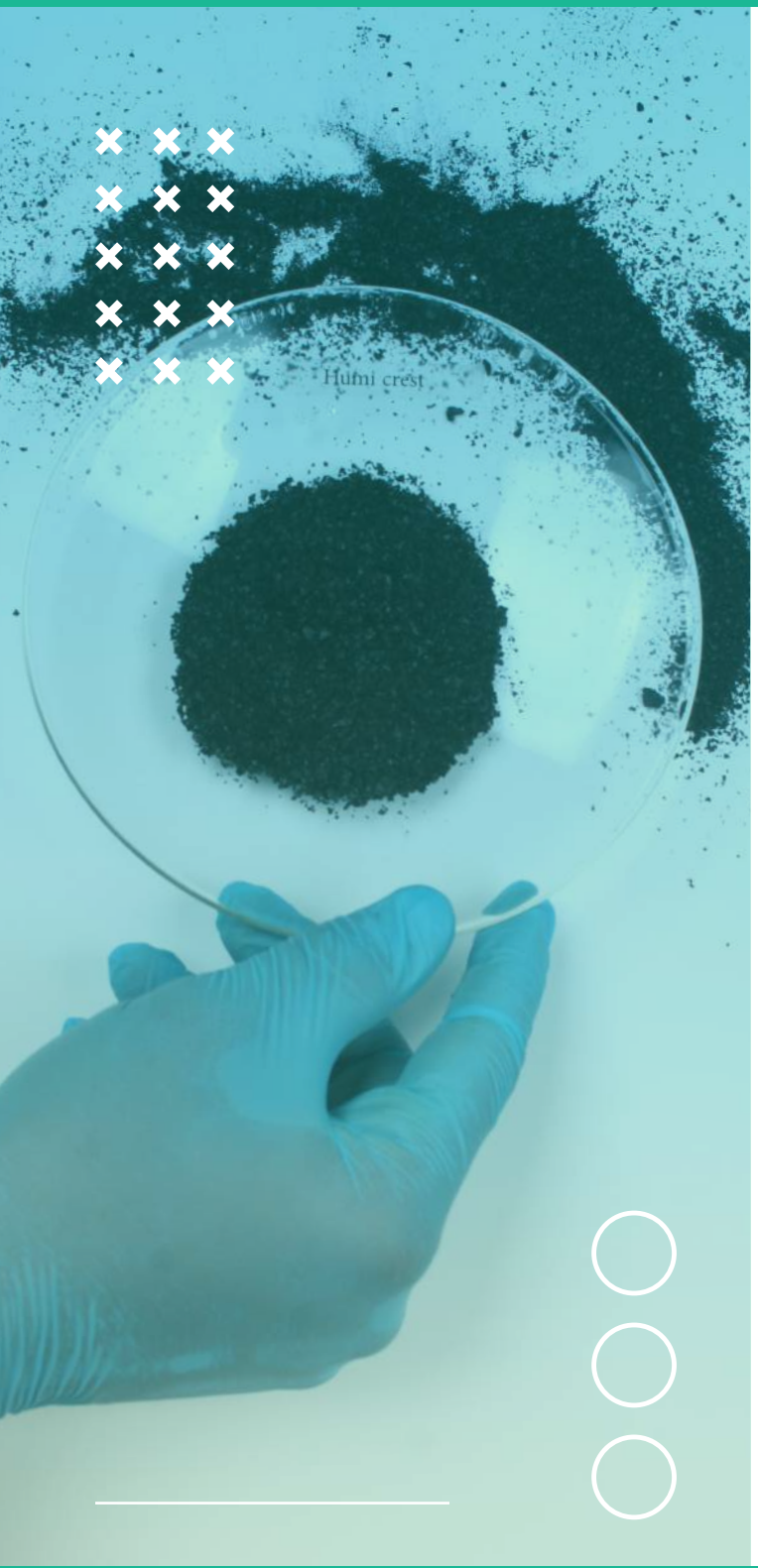
DOSAGE

PLANTS	DOSAGES						APPLICATION PERIOD
	DRIP *(g/ha/m³)*			FOLIAR *(g/ha/m³)*			
	(3.2% Fe)	*(4.8% Fe)*	*(5.2% Fe)*	*(3.2% Fe)*	*(4.8% Fe)*	*(5.2% Fe)*	
GRAINS	100-120	90-110	90-110	60-80	50-70	50-70	During vegetative growth
INDUSTRIAL PLANTS	90-110	110-140	100-130	70-100	60-90	50-80	Throughout the growing season
OPEN FIELD VEGETABLES	120-150	110-140	100-130	70-100	60-90	50-80	Throughout the growing season
GREENHOUSE VEGETABLES	150-180	140-170	130-160	80-120	70-110	60-100	Throughout the growing season
FRUIT TREES	200-250	190-240	180-230	100-150	90-140	80-130	Before or during the growing season
ORNAMENTALS	180-230	110-140	100-130	70-100	60-90	50-80	Throughout the growing season

COMPOSITION

w/w

Product	% of Iron (Fe)	% of ortho-ortho isomer
HERMAFER	6%	3.2%
HERMAFER PLUS	6%	4.8%
HERMAFER VIP	6%	5.2%



Characteristics and features

A solid fertilizer containing the specifications you mentioned (64% minimum w/w, 8-12% potassium (K2O dry basis w/w), 10-20% maximum fulvic acid (dry basis w/w), and 65% organic matter from plants with a pH between 9 and 11) can offer several important benefits in agricultural and horticultural applications. Here are some key points:

- Nutrient Content: The fertilizer›s high percentage of potassium (K2O) is beneficial for plant growth and development. Potassium is an essential macronutrient that promotes root development, enhances disease resistance, and improves overall plant vigor. A fertilizer with a significant potassium content can help ensure optimal plant nutrition.

- Humic and Fulvic Acids: Humic and fulvic acids are organic compounds found in soil and organic matter. They play crucial roles in soil fertility and plant nutrient uptake. Fulvic acid aids in nutrient absorption, stimulates root growth, and enhances soil structure. The presence of fulvic acid within the specified range ensures that the fertilizer provides the potential benefits associated with this component.

- Organic Matter: The fertilizer›s 65% organic matter derived from plants contributes to soil health and fertility. Organic matter improves soil structure, enhances water retention capacity, promotes beneficial microbial activity, and increases nutrient availability to plants. Incorporating organic matter into the soil through fertilization helps sustain long-term soil fertility and productivity.

- pH Range: The specified pH range of 9 to 11 suggests an alkaline nature of the fertilizer. Alkaline pH levels can influence soil characteristics and nutrient availability. In some cases, alkaline pH can help neutralize acidic soils, making them more suitable for plant growth.

A solid fertilizer with these specifications provides a balanced nutrient profile, organic matter content, and potential benefits associated with humic and fulvic acids. It can support plant growth, improve soil fertility, and contribute to sustainable agriculture practices

HUMI CREST

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	200-250 g/ha/m³	100-150 g/ha/m³	During vegetative growth
INDUSTRIAL PLANTS	250-300 g/ha/m³	150-200 g/ha/m³	Throughout the growing season
OPEN FIELD VEGETABLES	250-300 g/ha/m³	150-200 g/ha/m³	Throughout the growing season
GREENHOUSE VEGETABLES	300-350 g/ha/m³	200-250 g/ha/m³	Throughout the growing season
FRUIT TREES	350-400 g/ha/m³	250-300 g/ha/m³	Before or during the growing season
ORNAMENTALS	250-300 g/ha/m³	150-200 g/ha/m³	Throughout the growing season

COMPOSITION

	w/w
Potassium (K2O)	**8-12%**
Fulvic acid	**10-20%**
Organic matter	**65%**
pH	**9-11**

1KG
25KG

Characteristics and features

Is fertilizer with the following nutrient composition 1.45% boron, 2% magnesium oxide (soluble in water and chelated EDTA), 0.57% Cu (soluble in water and chelated EDTA), 3.66% Fe (soluble in water and chelated EDTA), 2.64% Mn (soluble in water and chelated EDTA), 4.52% Zn (soluble in water and chelated EDTA), 0.05% Mo (soluble in water and chelated EDTA) can provide several important benefits for plant growth and development:

Boron (1.45%): Boron is a micronutrient necessary for various plant functions, including cell wall formation, carbohydrate metabolism, and reproductive processes. A liquid fertilizer with 1.45% boron can help prevent boron deficiency in plants and ensure optimal growth, flowering, and fruit set.

Magnesium (2% as magnesium oxide): Magnesium is a macronutrient essential for chlorophyll synthesis, photosynthesis, and enzyme activation. A soluble and chelated form of magnesium oxide in liquid fertilizer provides readily available magnesium to plants, supporting healthy leaf development, photosynthetic activity, and overall plant vigor.

Copper (0.57%): Copper is a micronutrient that plays a role in various enzymatic processes and acts as a catalyst for numerous plant reactions. Soluble and chelated copper in liquid fertilizer ensures that plants have access to this micronutrient, promoting proper enzyme function, reproductive growth, and disease resistance.

Iron (3.66%): Iron is a micronutrient crucial for chlorophyll production, photosynthesis, and enzyme activity. The presence of soluble and chelated iron in liquid fertilizer ensures efficient iron uptake by plants, preventing iron deficiency symptoms such as chlorosis (yellowing of leaves) and promoting healthy growth and development.

Manganese (2.64%): Manganese is a micronutrient involved in various metabolic processes, including photosynthesis, enzyme activation, and nitrogen metabolism. Soluble and chelated manganese in liquid fertilizer supports these vital functions, ensuring optimal plant growth, chlorophyll production, and disease resistance.

Zinc (4.52%): Zinc is a micronutrient essential for enzyme activity, protein synthesis, and hormone regulation. The presence of soluble and chelated zinc in liquid fertilizer ensures that plants have an adequate supply of this micronutrient, promoting proper growth, flowering, and fruit development.

Molybdenum (0.05%): Molybdenum is a micronutrient involved in nitrogen metabolism and enzyme activity. Soluble and chelated molybdenum in liquid fertilizer supports nitrogen fixation and other important plant processes, ensuring proper plant growth, nutrient utilization, and overall health.

The inclusion of these micronutrients and macronutrients in the liquid fertilizer helps meet the specific nutritional needs of plants, supporting their physiological processes, growth, and productivity.

HERMAMIX

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	DRIP	FOLIAR	
GRAINS	50-100 g/ha/m³	30-60 g/ha/m³	During vegetative growth
INDUSTRIAL PLANTS	100-150 g/ha/m³	60-100 g/ha/m³	Throughout the growing season
OPEN FIELD VEGETABLES	100-150 g/ha/m³	60-100 g/ha/m³	Throughout the growing season
GREENHOUSE VEGETABLES	150-200 g/ha/m³	80-120 g/ha/m³	Throughout the growing season
FRUIT TREES	200-250 g/ha/m³	100-150 g/ha/m³	Before or during the growing season
ORNAMENTALS	100-150 g/ha/m³	60-100 g/ha/m³	Throughout the growing season

COMPOSITION

	w/w
Boron	**1.45%**
Magnesium oxide	**2%**
Cu	**0.57%**
Fe	**3.66%**
Mn	**2.64%**
Zn	**4.52%**
Mo	**0.05%**

1KG
25KG

Characteristics and features

Soil nutrients undergo continuous depletion as a result of various activities such as over-farming, tilling, and development. These nutrients eventually flow into the oceans without any means of returning back. However, seaweed offers a natural solution to restore essential soil nutrients from the ocean to your plants, trees, and turf.

Seaweed contains a broader range of nutrients compared to conventional N-P-K fertilizers. These additional nutrients effectively address various deficiencies in the soil.
In terms of cost-efficiency, seaweed is more economical than liquid seaweed fertilizers, as the shipping costs of pre-dissolved solutions are reduced by eliminating the need to transport water.
It is important to note that seaweed fertilizers are listed by OMRI for organic growers and landscapers.
Organic fertilizers stimulate the growth of beneficial microorganisms in the soil.
The organic nutrients present in our organic fertilizers are naturally chelated, making them more easily absorbed by plants and remaining in the soil for longer durations.
Seaweed fertilizers can be applied to plants, turf, trees, and are also suitable for indoor growing.
Commercially, seaweed fertilizers have demonstrated superior performance compared to synthetic fertilizers. The use of seaweed fertilizers enhances the natural sugar content (brix) in plants and turf, resulting in healthier plants that are less prone to diseases and insect damage.
Increased sugar levels (brix) also enhance the taste of fruits and vegetables, ultimately increasing their market value.
Flowers treated with seaweed fertilizers exhibit more abundant and vibrant colors, and their blooms have an extended lifespan.

SEA SET

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
	SOIL 2-4 Kg / Ha / time	2-3 times during seedling stage and growth stage.
	FOLIAR 1-2 Kg / Ha / time	2-3 times during seedling stage and growth stage.

COMPOSITION

	w/w
Alginic Acid	**16%**
Organic Matter	**50%**
N	**1%**
K2O	**16-21%**
Cytokinin & gibberellin	**600-800ppm**
Mannitol	**1-6%**
Fe	**0.2%**
Ca	**0.15%**
Mg	**0.2%**
S	**1%**
Solubility	**100**

GRANULAR

Herma®
Agro-Chemical Products

Characteristics and features

This product is suitable for all types of cultivation.

provides a balanced supply of essential nutrients.

Enhances the uptake of magnesium and sulfur by plants.

HERMAINY line offers complex granular fertilizers specially designed for both basal and top dressing fertilizations in various types of cultivations. Some of **HERMAINY** line products provide a generous supply of sulfur and magnesium.

HERMAINY products stand out for their consistent granule size, high solubility, and slightly acidic reaction, attributed to the presence of sulfur from sulfuric anhydride, which is soluble in water. This enhances the availability of essential nutrients in the soil, preventing deficiencies and physiological disorders, and ultimately improving the quality of the crop yield.

12-12-17+TE

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
Flower and ornamental	200-400 kg / ha	in coverage
Fruit	400-600 kg / ha	at the end of winter
Industrial	400-600 kg / ha	at sowing
Horticultural	400-800 kg / ha	at transplanting

COMPOSITION

	%
Total nitrogen (N)	
of which	**12**
Nitrogen (N) Nitric	**5**
Ammonia Nitrogen (N)	
Phosphoric Anhydride (P2O5) soluble in neutral ammonium citrate and water	**12**
Potassium Oxide (K2O) soluble in water	**17**
Magnesium Oxide (MgO) soluble in water	**2**
Total Sulfur Trioxide (SO3)	**8**
Zinc (Zn)	**0.1**

25kg

Characteristics and features

Balanced NPK Ratio: The 12-11-18 NPK ratio ensures plants receive adequate nitrogen, phosphorus, and potassium, supporting overall growth and health.

Promotes Growth: NPK 12-11-18 stimulates leafy green growth, strengthens stems, and improves plant vitality.

Enhances Flowering and Fruiting: The phosphorus content encourages root development, flower formation, and improves fruit quality and yield.

Supports Resilience: Higher potassium concentration enhances plant resilience, aiding in water and nutrient uptake and helping plants withstand stress.

Improves Nutrient Availability: Essential macronutrients in NPK 12-11-18 prevent nutrient deficiencies and maintain soil nutrient balance.

Versatile Application: Suitable for various plants, including vegetables, fruits, flowers, and ornamentals.

Convenient Nutrient Management: Simplifies nutrient management with a balanced composition, reducing the need for multiple fertilizers.

12:11:18

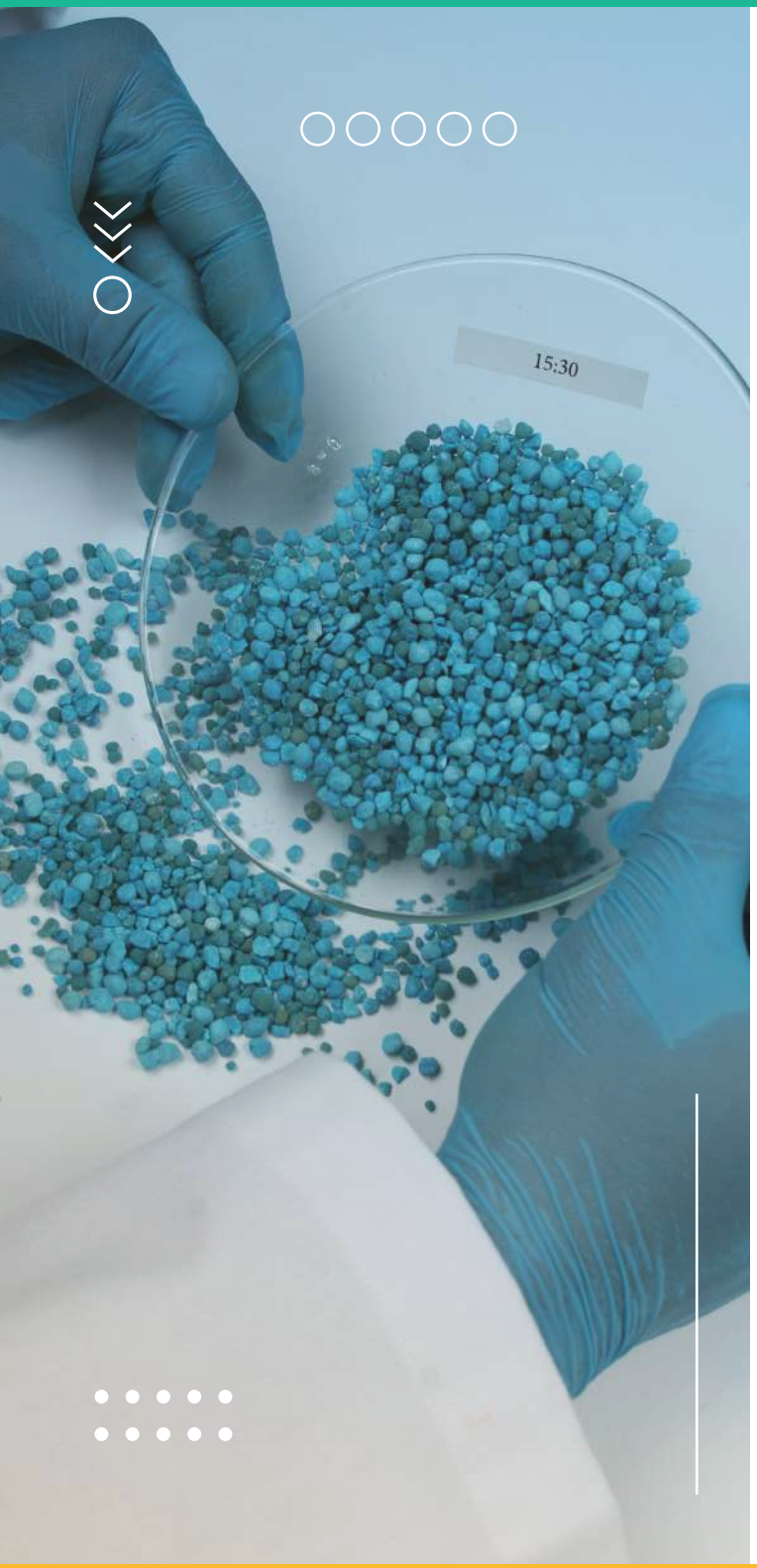
DOSAGE

PLANTS	DOSAGES KG/DECARE
Tomato, Pepper, Cucumber, Eggplant, etc	15-20
Potato, Onion, Cabbage, Carrot, Zucchini, etc	15-20
Wheat, Barley, Oats, Rye, etc.	20-25
Forage crops, Greenfield	10-15
Corn	20-25
Tobacco, Sugar Beet, Cotton	10-15
Canola, Sunflower	10-15
Vineyard	15-20
Peach, Cherry, Plum, Apricot and etc.	15-20
Apple, Pear, Quince and etc.	20-25

COMPOSITION

	%
Total nitrogen (N)	**12%**
Phosphoric Anhydride (P2O5)	**11%**
Potassium Oxide (K2O) soluble in water	**18%**

25kg



Characteristics and features

Balanced Nutrient Supply: The NPK ratio of 15:30 ensures plants receive a balanced supply of nitrogen, phosphorus, and potassium, promoting healthy growth and development.

Enhanced Plant Productivity: The higher phosphorus content in NPK 15:30 stimulates root development, leading to improved nutrient uptake and enhanced plant productivity.

Increased Crop Yield: The higher potassium content supports fruiting and flowering, resulting in increased crop yield and improved quality.

Sulfur Enrichment: The addition of 11% sulfur (S) in NPK 15:30 helps improve plant metabolism and protein synthesis, promoting overall plant health and vitality.

Improved Stress Tolerance: Adequate nutrient supply, including nitrogen, phosphorus, potassium, and sulfur, enhances plant resilience and helps plants cope with environmental stresses such as drought, disease, and nutrient deficiencies.

Versatile Application: NPK 15:30 + 11% S can be used for a wide range of crops, including grains, fruits, vegetables, and ornamental plants, making it a versatile choice for farmers and gardeners.

Simplified Fertilizer Management: With its comprehensive nutrient profile, NPK 15:30 + 11% S simplifies fertilizer management by providing a combination of essential nutrients in appropriate ratios, reducing the need for multiple fertilizers.

15:30 + 11% S

DOSAGE

PLANTS	DOSAGES KG/DECARE
Tomato, Pepper, Cucumber, Eggplant, etc	15-20
Potato, Onion, Cabbage, Carrot, Zucchini, etc	15-20
Wheat, Barley, Oats, Rye, etc.	20-25
Forage crops, Greenfield	10-15
Corn	20-25
Tobacco, Sugar Beet, Cotton	10-15
Canola, Sunflower	10-15
Vineyard	15-20
Peach, Cherry, Plum, Apricot and etc.	15-20
Apple, Pear, Quince and etc.	20-25

COMPOSITION

	%
Nitrogen (N)	**15**
Phosphorus (P)	**30**
Sulfur (S)	**11**

25kg

Characteristics and features

NPK 16:27:7 fertilizer is a complex inorganic solid mineral product that serves as a comprehensive source of essential nutrients for plants. It contains nitrogen (N), phosphorus (P), and potassium (K), along with sulphur (S), zinc (Zn), and boron (B) as micronutrients. This well-rounded formulation is particularly suitable for fertilizing various plant species, including corn, small grains, soybeans, sunflowers, and more. The high solubility of phosphorus (P) and other nutrients makes it ideal for spring application, whether its applied uniformly or localized in rows during sowing.

Key advantages of using this fertilizer include:

Contains all the necessary macro and micro elements for successful crop production.

More efficient nitrogen (N) in the form of ammonium.

Emphasizes the maximum water solubility of phosphorus (P).

Designed for soils with medium to high potassium (K) levels.

The presence of sulphur (S) contributes to improved product quality and enhanced nitrogen (N) absorption.

The micronutrients play a vital role in various physiological processes in plants, such as enzyme activity, hormone and chlorophyll synthesis, flowering, and pollination.

The balanced formulation is particularly well-suited for application in small grains and corn cultivation.

16:27:7

DOSAGE

PLANTS	DOSAGES
Small grains	200-400 kg / ha
Corn	250-400 kg / ha
Soya	200-400 kg / ha
Sunflower	250-350 kg / ha
Rapeseed	250-400 kg / ha

COMPOSITION

	%
Nitrogen (N)	**16**
Phosphoric Anhydride (P2O5)	**27**
Potassium Oxide (K2O) soluble in water	**7**

25kg

Characteristics and features

Balanced nutrient supply: NPK 8-15-15 provides a balanced ratio of nutrients to plants. The moderate nitrogen content (8%) promotes healthy foliage growth, while the higher phosphorus content (15%) supports root development, flowering, and fruiting. The potassium content (15%) contributes to disease resistance, water regulation, and overall plant health.

Root development and flowering: The higher phosphorus content in NPK 8-15-15 helps stimulate root development and strengthens plants› ability to absorb nutrients and water. Additionally, it supports the production of flowers and enhances flowering potential.

Fruit and seed production: Adequate phosphorus and potassium levels in NPK 8-15-15 are essential for fruit and seed development. Phosphorus plays a crucial role in energy transfer, leading to increased yield and improved fruit quality. Potassium aids in fruit maturation, promotes seed formation, and enhances plant resistance to diseases and stress.

Soil fertility maintenance: Nitrogen in NPK 8-15-15 helps replenish and maintain soil fertility by supporting plant growth and nutrient utilization. It encourages lush foliage and overall plant vigor.

Versatile application: NPK 8-15-15 can be used for a wide range of crops, including vegetables, fruits, ornamentals, and field crops. It provides a balanced nutrient supply suitable for various plants.

Easy handling and application: NPK 8-15-15 fertilizer is available in different forms, such as granules or powder, making it convenient to handle and apply. It can be easily spread by hand or using fertilizer spreaders.

8:15:15

DOSAGE

PLANTS	DOSAGES
Wheat	200-450 kg / ha
Corn	250-450 kg / ha
Sunflower	200-400 kg / ha
Soya	250-350 kg / ha
Rapeseed	250-400 kg / ha
Barley	250-400 kg / ha
Fruits	300 – 600 kg/ha
Pastures	300 – 500 kg/ha

COMPOSITION

	%
Nitrogen (N)	**8**
Phosphoric Anhydride (P2O5)	**15**
Potassium Oxide (K2O) soluble in water	**15**

25kg

Characteristics and features

NPK 6-12-24: a balanced nutrient supply for plants. It offers optimal ratios of nitrogen (6%), phosphorus (12%), and potassium (24%). Benefits include:

Balanced nutrition: Supports healthy foliage growth (low nitrogen), root development (moderate phosphorus), and overall plant health (high potassium).
Root development and nutrient uptake: Enhances root system, nutrient uptake, water absorption, and plant vitality.
Flowering and fruiting: Promotes flower formation, fruit development, and quality. Enhances disease resistance.
Stress tolerance and disease resistance: Helps plants withstand stress, temperature fluctuations, and diseases. Improves water regulation and cellular functions.
Suitable for specific crops: Ideal for fruit trees, flowering plants, and crops with extensive flowering and fruiting stages.
Versatile application: Suitable for agriculture and horticulture. Works well with vegetables, fruits, ornamentals, and field crops.

Primary justifications for implementation:

- An exceptional remedy for crops with specific potassium (K) needs.
- Demonstrates a notable effectiveness in utilizing nitrogen (N) in the form of ammonium.
- Comprises easily soluble phosphorous (P).
- Encourages the robustness of arable crops.
- Represents an economically viable formulation.

6:12:24

DOSAGE

PLANTS	DOSAGES
Sugar beet	500-700 kg / ha
Rapeseed	250-400 kg / ha
Fruits	350-800 kg / ha
Vegetables	400-900 kg / ha
Sunflower	250-350 kg / ha
Wheat	300-400 kg / ha
Corn	300 – 600 kg/ha
Soya	250 – 400 kg/ha

COMPOSITION

	%
Nitrogen (N)	**6**
Phosphoric Anhydride (P2O5)	**12**
Potassium Oxide (K2O) soluble in water	**24**

25kg

Characteristics and features

NPK 6-24-12: a balanced nutrient supply for plants. It offers optimal ratios of nitrogen (6%), phosphorus (24%), and potassium (12%). Key points include:

Balanced nutrition: Supports healthy foliage growth (low nitrogen), root development (high phosphorus), and overall plant health (moderate potassium).
Strong root development: High phosphorus content promotes robust root systems, improving nutrient and water uptake and enhancing plant vigor.
Flowering and fruiting: Adequate phosphorus levels stimulate flower formation and fruit development, leading to improved yield and quality.
Enhances plant health and stress tolerance: Potassium content improves plant health, water regulation, and helps plants withstand environmental stressors like drought and disease.
Suitable for various crops: Ideal for vegetables, fruits, ornamentals, and field crops, providing balanced growth and development across different plant species.
Versatile application: Applicable to agricultural and horticultural settings, including soil-based cultivation, container gardening, and hydroponics.

Primary rationales for implementation:

- Exceptional remedy for crops with specific phosphorus (P) needs.
- Remarkable efficiency in utilizing nitrogen (N) in the form of ammonium.
- Contains easily soluble phosphorus (P).
- The presence of secondary macro elements calcium (Ca) and sulfur (S) impacts nitrogen absorption, various enzyme processes, protein synthesis, and enhances plant resilience to stress conditions.
- The presence of zinc (Zn) improves the synthesis of plant hormone (auxin), chlorophyll, and carbohydrates.
- Promotes enhanced growth of plants during the initial stages of development.
- Represents a formulation that is economically viable.

6:24:12

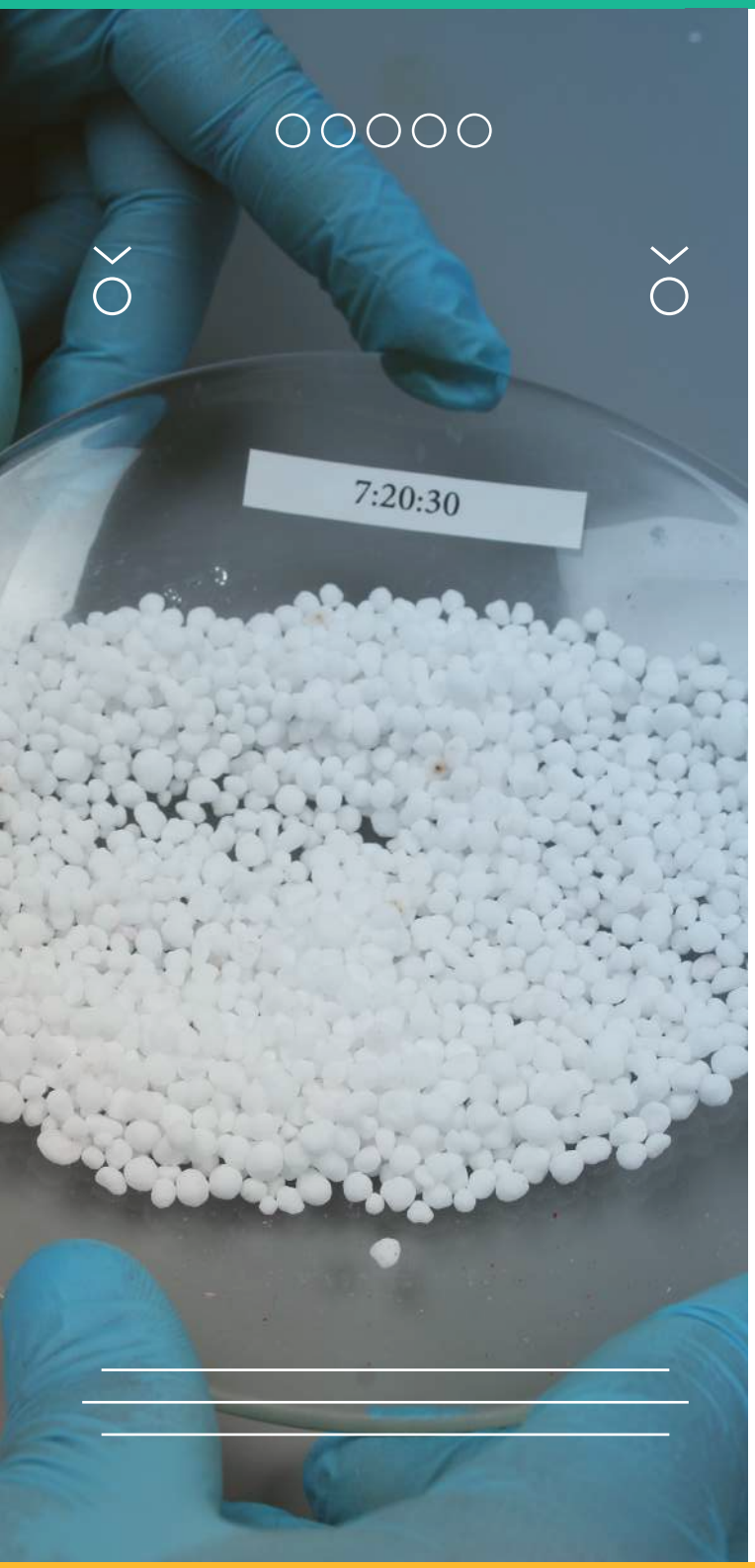
DOSAGE

PLANTS	DOSAGES
Wheat	300 – 400 kg/ha
Barley	250 – 400 kg/ha
Corn	300 – 450 kg/ha
Soya	250 – 400 kg/ha
Sunflower	200 – 400 kg/ha
Rapeseed	250 – 450 kg/ha
Fruits	300 – 650 kg/ha
Vegetables	300 – 700 kg/ha
Pastures	300 – 500 kg/ha

COMPOSITION

	%
Nitrogen (N)	**6**
Phosphoric Anhydride (P2O5)	**24**
Potassium Oxide (K2O) soluble in water	**12**

25kg



Characteristics and features

NPK 7-20-30: promotes flowering, root development, and overall plant health. Key benefits include:

Flowering and fruiting promotion: High phosphorus content aids flower formation, pollination, and fruit development, leading to improved yields and fruit quality.
Root development support: Moderate nitrogen content facilitates the growth of a robust root system, enabling efficient nutrient and water absorption.
Enhanced plant health: Balanced nutrient ratio with higher potassium content improves overall plant health, vigor, stress tolerance, and disease resistance.
Improved nutrient uptake: Adequate phosphorus levels enhance nutrient absorption, ensuring optimal growth and development.
Suitable for high-demand crops: Ideal for flowering plants, fruit trees, and crops with extended flowering and fruiting periods that require higher phosphorus and potassium levels.
Versatile application: Can be used in various agricultural and horticultural settings, including field crops, orchards, and greenhouse production.

Primary justifications for implementation:

- Comprehensive inclusion of essential macro and micro elements crucial for successful crop production.
- An outstanding solution for crops with specific phosphorus (P) and potassium (K) requirements.
- Enhanced utilization of phosphorus (P) and potassium (K) throughout the growth phase of the crops.
- Significant influence on the development of desirable characteristics and quantities of the fruits.
- Ensures consistent and targeted supply of highly accessible nutrients to plants.
- The presence of secondary macro element sulfur (S) enhances the efficient utilization of nitrogen, synthesis of proteins and chlorophyll, and the activity of various enzymes.

7:20:30

DOSAGE

PLANTS	DOSAGES
Fruits	350 – 700 kg/ha
Vegetables	400 – 700 kg/ha
Sugar beet	400 – 600 kg/ha
Rapeseed	200 – 400 kg/ha
Corn	200 – 500 kg/ha
Sunflower	200 – 400 kg/ha
Wheat	200 – 400 kg/ha
Soya	150 – 300 kg/ha

COMPOSITION

	%
Nitrogen (N)	**7**
Phosphoric Anhydride (P2O5)	**20**
Potassium Oxide (K2O) soluble in water	**30**

25kg

Characteristics and features

Promotes root development: The high phosphorus content in NPK 20-30 is particularly beneficial for promoting root development. Phosphorus plays a crucial role in root formation, elongation, and overall root system establishment. It helps plants absorb water and nutrients from the soil, leading to healthier and more vigorous plants.

Stimulates flowering and fruiting: The substantial phosphorus level in NPK 20-30 supports flowering and fruiting in plants. Phosphorus is essential for flower initiation, pollination, and fruit development. It encourages abundant blooms, improves fruit set, and enhances the quality and size of fruits.

Enhances early growth and establishment: The high nitrogen content in NPK 20-30 promotes early growth and establishment of plants. Nitrogen is a vital component of amino acids, proteins, and chlorophyll, which are essential for plant growth and development. It stimulates leaf growth, enhances photosynthesis, and contributes to overall plant vigor during the early stages of growth.

Suitable for phosphorus-demanding crops: NPK 20-30 is particularly useful for crops that have a high demand for phosphorus but require limited potassium. It is commonly used for crops such as root vegetables (carrots, potatoes), bulbs, and flowering plants.

Corrects phosphorus deficiencies: NPK 20-30 can be employed to correct phosphorus deficiencies in soil. If a soil analysis reveals low phosphorus levels, applying this fertilizer can help replenish the nutrient and restore optimal nutrient balance.

20:30

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
Flower and ornamental	200-400 kg / ha	in coverage
Fruit	400-600 kg / ha	at the end of winter
Industrial	400-600 kg / ha	at sowing
Horticultural	400-800 kg / ha	at transplanting

COMPOSITION

	%
Nitrogen (N)	**20**
Phosphoric Anhydride (P2O5)	**30**
Potassium Oxide (K2O) soluble in water	**0**

25kg

Characteristics and features

NPK 7-21-21: a balanced nutrient supply for plants. It offers optimal ratios of nitrogen (7%), phosphorus (21%), and potassium (21%). Key points include:

Balanced nutrition: Supports healthy foliage growth (moderate nitrogen), root development (higher phosphorus), and overall plant health (equal potassium).
Root development and nutrient uptake: High phosphorus content promotes strong root systems, improving nutrient and water uptake and enhancing plant vitality.
Flowering and fruiting: Adequate phosphorus and potassium levels stimulate flower formation, fruit development, and quality. Enhances disease resistance.
Enhances overall plant health: Balanced nutrient ratio with equal potassium and phosphorus levels improves plant health, stress tolerance, and resistance to diseases.
Suitable for various crops: Ideal for vegetables, fruits, ornamentals, and field crops, providing balanced growth and development across different plant species.
Versatile application: Applicable to agricultural and horticultural settings, including soil-based cultivation, container gardening, and hydroponics.

Key justifications for implementation:

- An exceptional solution for crops that exhibit a specific need for phosphorus (P) and potassium (K).
- High efficiency in utilizing ammonium forms of nitrogen (N).
- Improved utilization of phosphorus (P) and potassium (K) throughout the vegetation period.
- The presence of zinc (Zn) enhances the synthesis of plant hormone (auxin), chlorophyll, and carbohydrates.
- Sulfur (S) plays a crucial role in protein synthesis, stimulates plant enzyme activities, and is vital in nitrogen metabolism.
- Significant impact on the development of both qualitative and quantitative characteristics of the fruit.
- Provides a continuous and targeted supply of highly affordable nutrients to plants.

7:21:21

DOSAGE

PLANTS	DOSAGES
Sugar beet	400 – 700 kg/ha
Rapeseed	200 – 400 kg/ha
Fruits	350 – 600 kg/ha
Vegetables	400 – 800 kg/ha
Sunflower	200 – 400 kg/ha
Wheats	200 – 400 kg/ha
Corn	200 – 500 kg/ha
Soya	200 – 300 kg/ha

COMPOSITION

	%
Nitrogen (N)	**7**
Phosphoric Anhydride (P2O5)	**21**
Potassium Oxide (K2O) soluble in water	**21**

25kg

Characteristics and features

Promotes root development: The high phosphorus content in NPK 10-20 is particularly beneficial for promoting root development. Phosphorus is essential for root formation, elongation, and overall root system establishment. It helps plants absorb water and nutrients from the soil, leading to healthier and more vigorous root growth.

Stimulates early growth: The higher nitrogen content in NPK 10-20 stimulates early plant growth and vegetative development. Nitrogen is a vital component of amino acids, proteins, and chlorophyll, which are essential for plant growth and leaf production. It promotes the development of lush foliage and supports overall plant vigor.

Enhances flowering and fruiting: Phosphorus plays a crucial role in promoting flowering and fruiting in plants. The substantial phosphorus level in NPK 10-20 supports flower initiation, pollination, and fruit development. It can lead to increased flowering, improved fruit set, and enhanced fruit quality.

Corrects phosphorus deficiencies: NPK 10-20 can be used to correct phosphorus deficiencies in soil. If a soil analysis reveals low phosphorus levels, applying this fertilizer can help replenish the nutrient and restore optimal nutrient balance.

Suitable for specific crops and situations: NPK 10-20 is particularly useful for crops that require higher phosphorus levels and have limited potassium requirements. It is commonly used for crops such as legumes, root vegetables, and crops in the early growth stages.

Versatile application: NPK 10-20 can be used in various agricultural and horticultural applications. It can be applied during planting or as a top-dressing fertilizer for established plants.

10:20

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
Flower and ornamental	200-400 kg / ha	in coverage
Fruit	400-600 kg / ha	at the end of winter
Industrial	400-600 kg / ha	at sowing
Horticultural	400-800 kg / ha	at transplanting

COMPOSITION

	%
Nitrogen (N)	**10**
Phosphoric Anhydride (P2O5)	**20**
Potassium Oxide (K2O) soluble in water	**0**

25kg

Characteristics and features

Balanced Nutrition: The equal proportions of Nitrogen (N), Phosphorus (P), and Potassium (K) in NPK 15-15-15 ensure a well-balanced nutrient supply for plants. These essential elements are vital for various physiological processes, including root development, flowering, fruiting, and overall plant growth.

Enhanced Plant Growth: The optimal combination of N, P, and K in NPK 15-15-15 promotes vigorous plant growth. Nitrogen supports leaf and stem growth, phosphorus aids in root development and energy transfer, while potassium regulates water and nutrient uptake, and enhances overall plant health.

Increased Nutrient Availability: The presence of sulfur (SO3) in NPK 15-15-15 helps improve the availability of nutrients for plants. Sulfur plays a crucial role in converting previously bound nutrients in the soil into a soluble form, enabling easy uptake by plants.

pH Regulation: The sulfur content in NPK 15-15-15 also acts as a pH regulator for the soil. It helps maintain an optimal pH level, creating a favorable environment for nutrient absorption and microbial activity.

Chlorine-Free: NPK 15-15-15 does not contain chlorine, which is beneficial for sensitive plants that may be negatively affected by high chlorine levels. This fertilizer avoids any potential harm caused by chlorine accumulation in the soil.

Long-Lasting Effects: 15-15-15 is a slow-release fertilizer, providing a steady and prolonged nutrient supply to plants. This gradual release ensures sustained nourishment, reducing the risk of nutrient deficiency or excess.

15:15:15

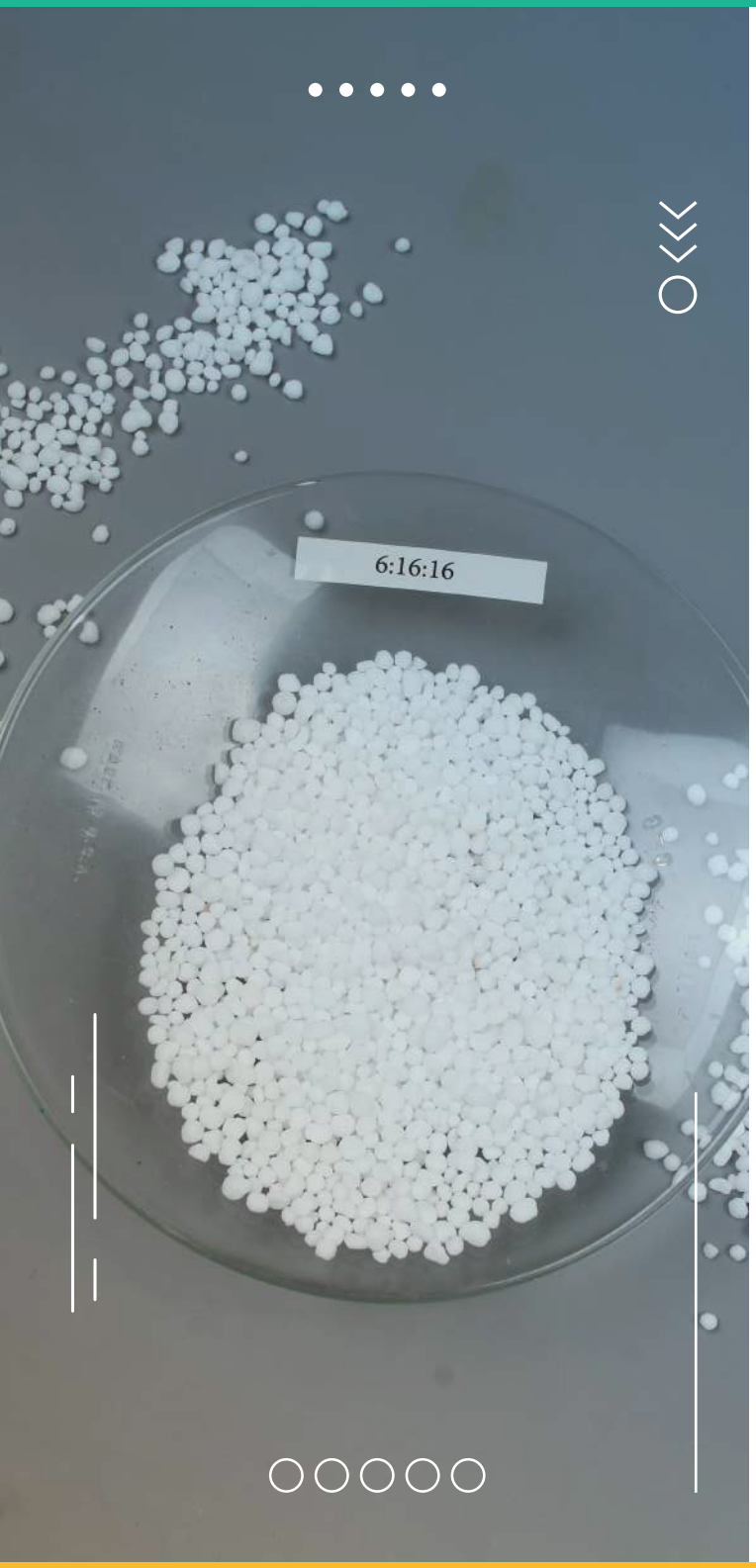
DOSAGE

PLANTS	DOSAGES
Tomato, Pepper, Cucumber, Eggplant, etc.	15-20 *Kg / Decare*
Potato, Onion, Cabbage, Carrot, Zucchini, etc ..	15-20 *Kg / Decare*
Wheat, Barley, Oats, Rye, etc.	20-25 *Kg / Decare*
Forage crops, Greenfield	10-15 *Kg / Decare*
Corn	20-25 *Kg / Decare*
Tobacco, Sugar Beet, Cotton	10-15 *Kg / Decare*
Canola, Sunflower	10-15 *Kg / Decare*
Vineyard	15-20 *Kg / Decare*
Peach, Cherry, Plum, Apricot and etc.	15-20 *Kg / Decare*
Apple, Pear, Quince and etc.	20-25 *Kg / Decare*

COMPOSITION

	%
Nitrogen (N)	**15**
Phosphoric Anhydride (P2O5)	**15**
Potassium Oxide (K2O) soluble in water	**15**

25kg



Characteristics and features

Balanced nutrient supply: NPK 6-16-16 provides a balanced ratio of nutrients to plants. The lower nitrogen content (6%) supports healthy foliage growth without excessive vegetative growth. The moderate phosphorus content (16%) promotes root development, flowering, and fruiting. The equal potassium content (16%) enhances overall plant health, stress tolerance, and disease resistance.

Root development and nutrient uptake: The phosphorus content in NPK 6-16-16 is particularly beneficial for root development. It helps plants establish a strong and healthy root system, improving nutrient and water uptake, and overall plant vitality.

Flowering and fruiting: Adequate phosphorus and potassium levels in NPK 6-16-16 are essential for promoting flowering and fruiting in plants. Phosphorus plays a vital role in flower formation and stimulates the development of fruits. Potassium contributes to fruit quality, maturation, and enhances the plant›s ability to resist diseases and stress.

Enhances overall plant health: The balanced ratio of nutrients in NPK 6-16-16, with equal phosphorus and potassium levels, contributes to overall plant health and vigor. Potassium supports various physiological processes, including photosynthesis, enzyme activation, and water regulation. It improves stress tolerance, disease resistance, and strengthens plants› ability to withstand adverse environmental conditions.

Suitable for various crops: NPK 6-16-16 is suitable for a wide range of crops, including vegetables, fruits, ornamentals, and field crops. It provides the necessary nutrients for balanced growth and development in different plant species.

Versatile application: NPK 6-16-16 can be used in both agricultural and horticultural settings. It can be applied to various growing systems, including soil-based cultivation, container gardening, and hydroponics.

6:16:16

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
Flower and ornamental	200-400 kg / ha	in coverage
Fruit	400-600 kg / ha	at the end of winter
Industrial	400-600 kg / ha	at sowing
Horticultural	400-800 kg / ha	at transplanting

COMPOSITION

	%
Nitrogen (N)	**6**
Phosphoric Anhydride (P2O5)	**16**
Potassium Oxide (K2O) soluble in water	**16**

25kg

Characteristics and features

Balanced nutrient supply: NPK 10-10-20 provides a balanced ratio of nutrients to plants. The equal nitrogen and phosphorus content (10%) supports overall plant growth, root development, and flower formation. The higher potassium content (20%) enhances plant health, stress tolerance, and fruit quality.

Root development and nutrient uptake: The phosphorus content in NPK 10-10-20 promotes root development and strengthens the overall root system. It helps plants establish a robust and healthy root network, facilitating efficient nutrient and water uptake from the soil.

Flowering and fruiting: The balanced levels of nitrogen and phosphorus in NPK 10-10-20 support flower formation and fruit development. Nitrogen is necessary for healthy foliage and flower production, while phosphorus plays a crucial role in promoting flowering and fruiting. The higher potassium content contributes to improved fruit quality, maturation, and disease resistance.

Enhances overall plant health: The higher potassium content in NPK 10-10-20 enhances overall plant health and vigor. Potassium supports various physiological processes, including photosynthesis, enzyme activation, and water regulation. It helps plants maintain their turgor pressure, resist diseases and pests, and withstand environmental stresses such as drought and extreme temperatures.

Suitable for various crops: NPK 10-10-20 is suitable for a wide range of crops, including vegetables, fruits, ornamentals, and field crops. It provides the necessary nutrients for balanced growth and development in different plant species.

Versatile application: NPK 10-10-20 can be used in both agricultural and horticultural settings. It can be applied to various growing systems, including soil-based cultivation, container gardening, and hydroponics.

10:10:20

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
Flower and ornamental	200-400 kg / ha	in coverage
Fruit	400-600 kg / ha	at the end of winter
Industrial	400-600 kg / ha	at sowing
Horticultural	400-800 kg / ha	at transplanting

COMPOSITION

	%
Nitrogen (N)	**10**
Phosphoric Anhydride (P2O5)	**10**
Potassium Oxide (K2O) soluble in water	**20**

25kg

Characteristics and features

Promotes root development: The high phosphorus content in NPK 10:45 is particularly beneficial for promoting root development. Phosphorus plays a crucial role in root formation, elongation, and overall root system establishment. It helps plants absorb water and nutrients from the soil, leading to healthier and more vigorous root growth.

Enhances flowering and fruiting: Adequate phosphorus levels are essential for promoting flowering and fruiting in plants. Phosphorus in NPK 10:45:0 stimulates flower formation, enhances flower quality, and supports the development of fruits. It can lead to increased flowering, improved fruit set, and enhanced fruit quality.

Supports overall plant growth and health: While NPK 10:45 has lower nitrogen and potassium levels, the provided phosphorus content still contributes to overall plant growth and health. Phosphorus is involved in energy transfer, photosynthesis, and DNA synthesis, ensuring proper cell division and plant development.

Corrects phosphorus deficiencies: NPK 10:45 can be used to correct phosphorus deficiencies in the soil. If a soil analysis reveals low phosphorus levels, applying this fertilizer can help replenish the nutrient and restore optimal nutrient balance, allowing plants to thrive.

Suitable for specific crops: NPK 10:45 is particularly beneficial for crops with high phosphorus requirements, such as flowering plants, fruiting trees, and crops that demand significant root and flower development. It provides the necessary phosphorus for these crops, supporting their growth, yield potential, and overall health.

10:45

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	Soil Application	Foliar	
All Vegetables	5-20 kg / ha	200 – 300 gr / 100 lt	2-4 Applications in each period from flowering to harvest
Strawberry	5-20 kg / ha	200 – 300 gr / 100 lt	2-4 Applications in each period from flowering to harvest
All Field Crops	-	200 – 300 gr / 100 lt	2-4 Applications in each period from flowering to harvest
All Fruit Production	5-20 kg / ha	300 – 500 gr / 100 lt	2-4 Applications in each period from flowering to harvest
Banana	5-20 kg / ha	300 – 500 gr / 100 lt	2-4 Applications in each period from flowering to harvest

COMPOSITION

	%
Nitrogen (N)	**10**
Phosphoric Anhydride (P2O5)	**45**
Potassium Oxide (K2O) soluble in water	

25kg

Characteristics and features

High phosphorus content: NPK 10:35 has a significantly high phosphorus content. Phosphorus is crucial for root development, flowering, and fruiting in plants. It supports the energy transfer and storage processes, promotes photosynthesis, and aids in the formation of DNA and cell membranes.

Limited nitrogen and potassium: NPK 10:35 has a lower nitrogen and potassium content. Nitrogen is important for overall plant growth and foliage development, while potassium is essential for plant health, stress tolerance, and disease resistance. However, this specific formulation focuses primarily on providing a substantial amount of phosphorus without adding extra nitrogen or potassium.

Promotes root development: The high phosphorus content in NPK 10:35 is particularly beneficial for promoting root development. Phosphorus plays a crucial role in root formation, elongation, and overall root system establishment. It helps plants absorb water and nutrients from the soil, leading to healthier and more vigorous root growth.

Enhances flowering and fruiting: Adequate phosphorus levels are essential for promoting flowering and fruiting in plants. Phosphorus in NPK 10:35 stimulates flower formation, enhances flower quality, and supports the development of fruits. It can lead to increased flowering, improved fruit set, and enhanced fruit quality.

Corrects phosphorus deficiencies: NPK 10:35 can be used to correct phosphorus deficiencies in the soil. If a soil analysis reveals low phosphorus levels, applying this fertilizer can help replenish the nutrient and restore the proper nutrient balance for plant growth.

Suitable for specific crops: NPK 10:35 is particularly beneficial for crops with high phosphorus requirements, such as flowering plants, fruiting trees, and crops that demand significant root and flower development. It provides the necessary phosphorus for these crops, supporting their growth, yield potential, and overall health.

10:35

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
Flower and ornamental	200-400 kg / ha	in coverage
Fruit	400-600 kg / ha	at the end of winter
Industrial	400-600 kg / ha	at sowing
Horticultural	400-800 kg / ha	at transplanting

COMPOSITION

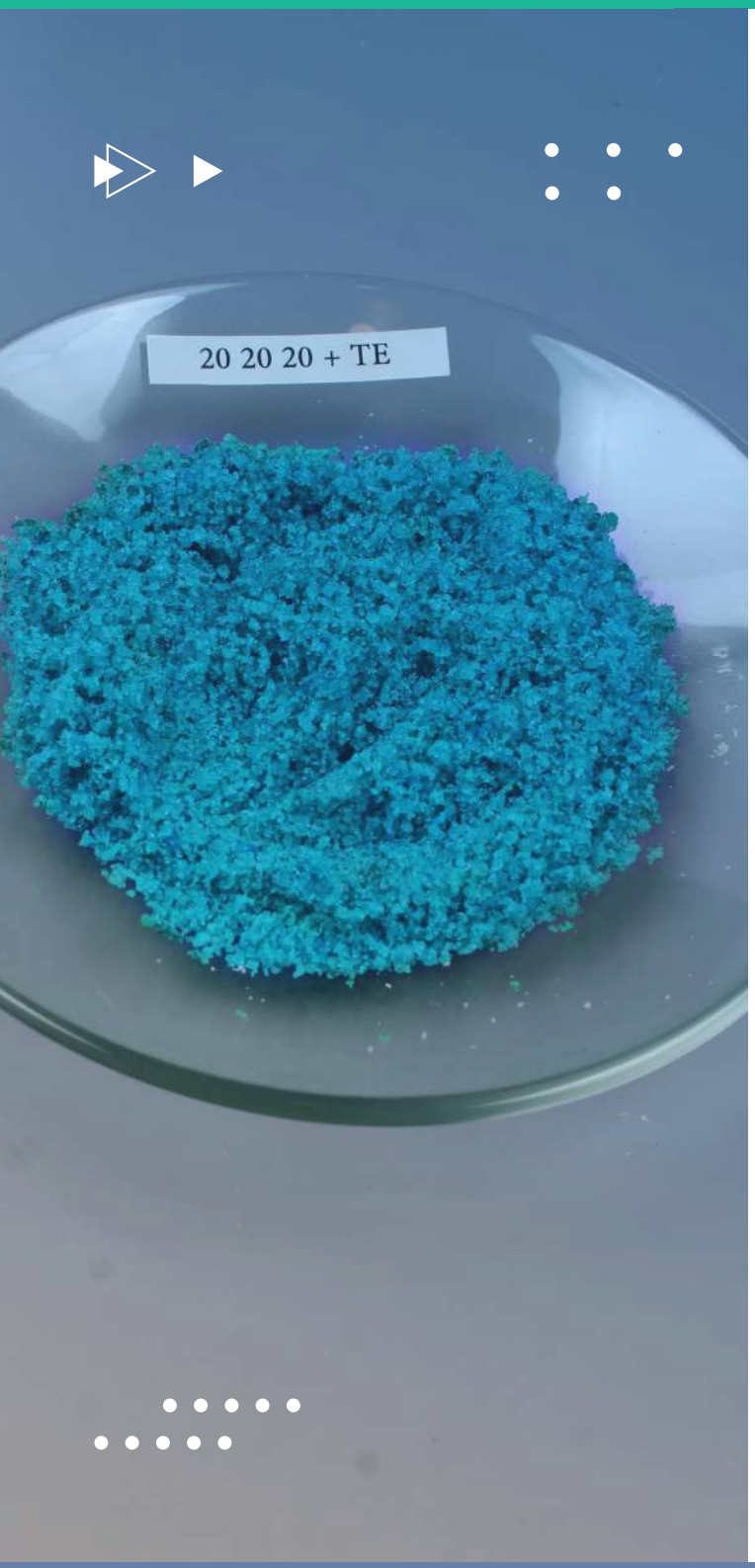
	%
Nitrogen (N)	**10**
Phosphoric Anhydride (P2O5)	**35**

25kg

WATER-SOLUBLE

Herma®

Agro-Chemical Products



Characteristics and features

- Devoid of chlorides.
- Inclusive of microelements.
- Absolute and instantaneous solubility.
- Suitable for chlorine-intolerant crops.
- Fulfills the demand for both major and trace elements.

Hermasol product range consists of advanced water-soluble fertilizers that do not contain chlorides, offering complete solubility without any delay.

Hermasols are particularly well-suited for fertigation purposes, especially when cultivating chlorine- or salinity-sensitive crops like vines, onions, and tobacco. The inclusion of microelements, expertly chelated with EDTA, ensures that the nutritional requirements of all crops are effectively met.

20 20 20 + TE

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	Foliar (lit/ha/m³)	Drip (lit/ha/m³)	
GRAINS	15-20	10-15	During vegetative growth and flowering
INDUSTRIAL PLANTS	20-25	15-20	Throughout the growing season
OPEN FIELD VEGETABLES	20-25	15-20	Throughout the growing season
GREENHOUSE VEGETABLES	25-30	20-25	Throughout the growing season
FRUIT TREES	25-35	25-30	Before or during the growing season
ORNAMENTALS	20-25	15-20	Throughout the growing season

COMPOSITION

	w/w
Total nitrogen (N) 20	**20%**
of which	
Nitrogen (N) Nitric	**3.6%**
Ammonia Nitrogen (N)	**3.9%**
Urea Nitrogen (N)	**12.5%**
Phosphoric Anhydride (P2O5) soluble in water	**20%**
Potassium Oxide (K2O) soluble in water	**20%**
Boron (B) soluble in water	**0.01%**
Copper (Cu) chelated with EDTA	**0.01%**
Iron (Fe) chelated with EDTA	**0.03%**
Manganese (Mn)	**0.02%**
Zinc (Zn)	**0.01%**

25kg

Characteristics and features

Promotes Root Development: The high phosphorus content (52%) in NPK 10-52-10 + TE stimulates root growth and development. Strong and healthy roots are crucial for plants to efficiently absorb water and nutrients from the soil, leading to overall improved plant establishment and growth.

Enhances Flowering and Fruiting: The balanced NPK ratio in NPK 10-52-10 + TE ensures adequate nutrient supply for flowering and fruiting plants. The phosphorus (52%) supports flower formation, while the potassium (10%) promotes healthy fruit development, leading to increased flower and fruit production.

Provides Essential Micronutrients: The inclusion of TE (Trace Elements) in NPK 10-52-10 + TE ensures the availability of essential micronutrients to plants. These micronutrients, such as iron, manganese, zinc, copper, and boron, play vital roles in various plant processes, including enzyme activity, photosynthesis, and overall plant health.

Improves Nutrient Uptake: The balanced nutrient composition of NPK 10-52-10 + TE enhances the uptake of nitrogen, phosphorus, and potassium, along with the essential micronutrients. This promotes efficient nutrient utilization by plants, leading to improved growth, vigor, and resilience.

Versatile Application: NPK 10-52-10 + TE can be used for a wide range of crops, including both field crops and horticultural plants. Its versatility makes it suitable for various growth stages, from seedling establishment to flowering and fruiting phases, providing consistent nutrient support throughout the plant›s life cycle.

10 52 10 + TE

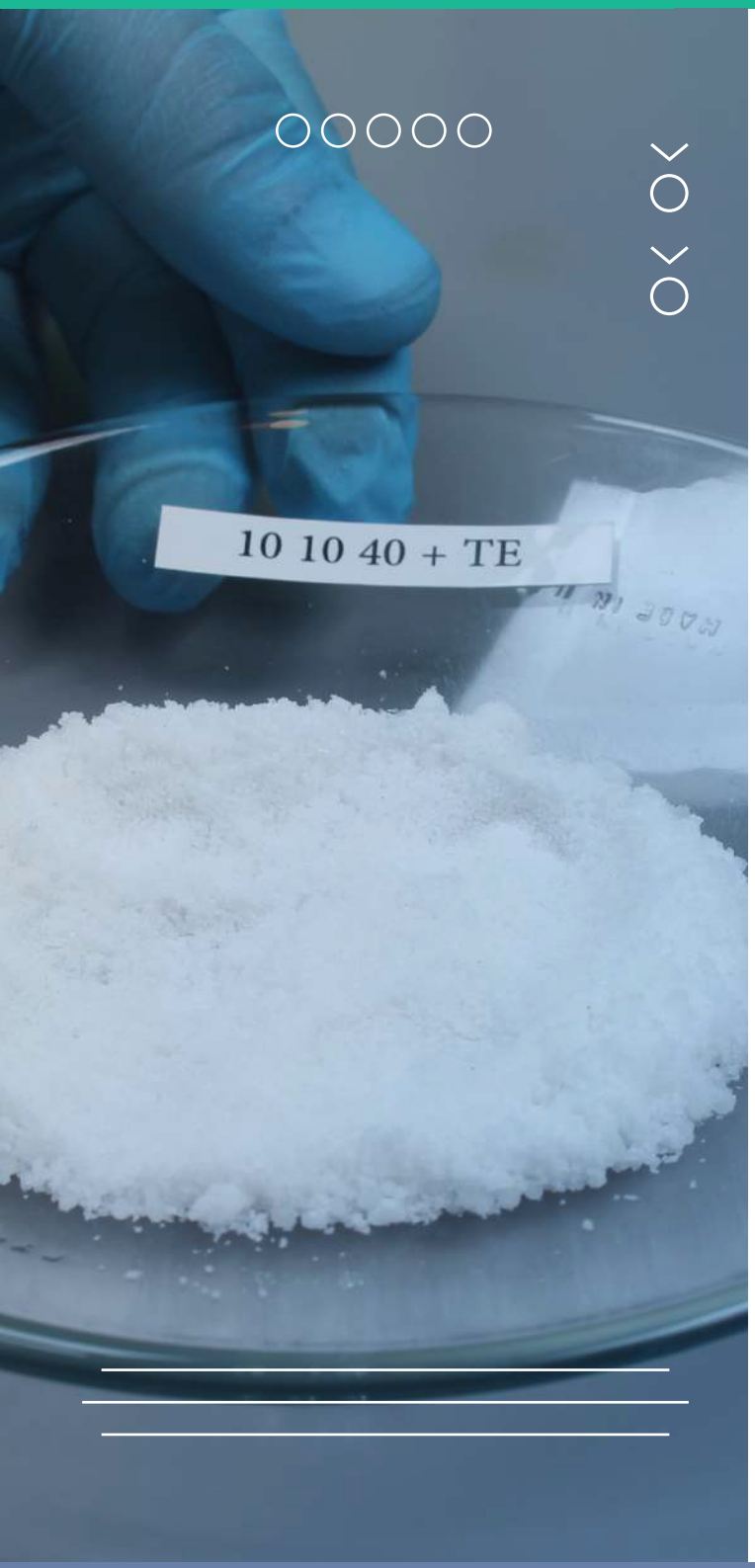
DOSAGE

PLANTS	DOSAGES
FLOWER AND ORNAMENTAL	25-50 kg / ha
FRUIT	25-50 kg / ha
INDUSTRIAL	25-50 kg / ha
HORTICULTURAL	25-50 kg / ha

COMPOSITION

	w/w
Total nitrogen (N) 20	**10%**
Phosphoric Anhydride (P_2O_5) soluble in water	**52%**
Potassium Oxide (K_2O) soluble in water	**10%**

25kg



Characteristics and features

Balanced Nutrient Supply: The balanced ratio of nitrogen (10%), phosphorus (10%), and potassium (40%) in NPK 10-10-40 + TE ensures that plants receive adequate amounts of essential macronutrients. This balanced nutrient supply supports overall plant growth, improves root development, enhances flowering and fruiting, and promotes overall plant health.

Increased Yield and Crop Quality: The high potassium content in NPK 10-10-40 + TE is beneficial for crop production. Potassium plays a crucial role in fruit quality, improving taste, color, and shelf life. It also enhances crop yield by promoting flower and fruit formation, resulting in higher yields and improved crop quality.

Essential Trace Elements: NPK 10-10-40 + TE includes trace elements such as iron, manganese, zinc, copper, and boron, which are vital micronutrients for plant growth. These trace elements support various metabolic processes, enzyme activity, and overall plant health. They enhance nutrient uptake, promote healthy foliage, and contribute to higher yields.

Versatile Application: NPK 10-10-40 + TE is suitable for a wide range of crops, including field crops and horticultural plants. It can be applied during different growth stages, from seedlings to mature plants. Its versatility allows for consistent nutrient supply, ensuring plants have the necessary elements for optimal growth and productivity.

Enhanced Plant Resilience: The balanced nutrient composition of NPK 10-10-40 + TE supports plant resilience and stress tolerance. Adequate levels of nitrogen and phosphorus promote healthy root systems, enabling plants to better withstand environmental stresses such as drought, diseases, and temperature fluctuations. This leads to stronger, more resilient plants.

10 10 40 + TE

DOSAGE

PLANTS	Soil Application	Foliar	DOSAGES
All Vegetables	5-20 kg / ha	200 – 300 gr / 100 lt	2-4 Applications in each period from flowering to harvest
Strawberry	5-20 kg / ha	200 – 300 gr / 100 lt	2-4 Applications in each period from flowering to harvest
All Field Crops	-	200 – 300 gr / 100 lt	2-4 Applications in each period from flowering to harvest
All Fruit Production	5-20 kg / ha	300 – 500 gr / 100 lt	2-4 Applications in each period from flowering to harvest
Banana	5-20 kg / ha	300 – 500 gr / 100 lt	2-4 Applications in each period from flowering to harvest

COMPOSITION

	w/w
Total nitrogen (N) 20	**10%**
Phosphoric Anhydride (P_2O_5) soluble in water	**10%**
Potassium Oxide (K_2O) soluble in water	**40%**

25kg

Characteristics and features

contains 12% nitrogen (N), 12% phosphorus (P), and 36% potassium (K). This specific ratio indicates a balanced nutrient profile, with a higher proportion of potassium compared to nitrogen and phosphorus.
This type of fertilizer can be suitable for various plants and situations, including:

1- Flowering and Fruiting Plants: The balanced ratio of nutrients can support the overall growth and development of flowering and fruiting plants. It can contribute to healthy vegetation, healthy flowering, and the formation of high-quality fruits.

2- Potassium-Hungry Crops: Certain plants have a higher demand for potassium, such as bananas, potatoes, and tomatoes. This fertilizer can provide the necessary potassium for these crops, promoting their vigor, disease resistance, and fruit development.

3- Stressful Conditions: During periods of environmental stress, including extreme heat, drought, or disease, plants often benefit from increased potassium levels. Potassium helps plants cope with stress, maintain proper water balance, and strengthen cell walls

12 12 36 + TE

DOSAGE

PLANTS	DOSAGES		APPLICATION PERIOD
	Foliar (lit/ha/m³)	Drip (lit/ha/m³)	
GRAINS	5-10	10-15	During vegetative growth and flowering
INDUSTRIAL PLANTS	10-15	15-20	Throughout the growing season
OPEN FIELD VEGETABLES	10-15	15-20	Throughout the growing season
GREENHOUSE VEGETABLES	15-20	20-25	Throughout the growing season
FRUIT TREES	20-25	25-30	Before or during the growing season
ORNAMENTALS	10-15	15-20	Throughout the growing season

COMPOSITION

	w/w
Total nitrogen (N) 20	**12%**
Phosphoric Anhydride (P2O5) soluble in water	**12%**
Potassium Oxide (K2O) soluble in water	**36%**

25kg

Characteristics and features

High Nitrogen Content: With a nitrogen content of 30%, NPK 30-10-10 + TE provides a significant supply of this essential nutrient. Nitrogen is crucial for promoting vigorous vegetative growth, green leafy foliage, and overall plant development.

Balanced Nutrient Ratios: The balanced ratio of nitrogen (30%), phosphorus (10%), and potassium (10%) ensures that plants receive adequate amounts of these primary macronutrients. This balanced nutrient supply supports various aspects of plant growth, including root development, flowering, and fruit production.

Essential Trace Elements: NPK 30-10-10 + TE also contains essential trace elements (TE) such as iron, manganese, zinc, copper, and boron. These micronutrients are essential for various biochemical processes within plants, promoting enzyme activity and overall plant health.

Versatile Application: NPK 30-10-10 + TE is suitable for a wide range of crops, including both field crops and horticultural plants. Its versatility allows for effective nutrient supplementation across different growth stages, ensuring plants have the necessary elements for optimal growth and productivity.

Improved Plant Resilience: The balanced nutrient composition, especially the presence of potassium, helps enhance plant resilience and stress tolerance. Potassium plays a crucial role in water regulation, nutrient uptake, and overall plant metabolism, making plants better able to withstand environmental stresses such as drought, disease, and temperature fluctuations.

30 10 10 + TE

DOSAGE

PLANTS	DOSAGES
FLOWER AND ORNAMENTAL	25-50 kg / ha
FRUIT	25-50 kg / ha
INDUSTRIAL	25-50 kg / ha
HORTICULTURAL	25-50 kg / ha

COMPOSITION

	w/w
Total nitrogen (N) 20	**30%**
Phosphoric Anhydride (P_2O_5) soluble in water	**10%**
Potassium Oxide (K_2O) soluble in water	**10%**

25kg

Characteristics and features

Water-soluble fertilizers are designed to be dissolved in water and applied to plants through irrigation systems or by foliar spraying. They provide a quick release of nutrients to the plants, allowing for immediate uptake. The high nitrogen content in this particular fertilizer formulation (30%) is beneficial for promoting vegetative growth.
Phosphorus (15%) supports root development and flowering.
Potassium (15%) helps with overall plant health, disease resistance, and fruit production.

1-Leafy Vegetables: Crops like lettuce, spinach, kale, and other leafy green

2-Grasses: Lawns and turf grasses

3-Annual Flowers: Many annual flowering plants, such as petunias, marigolds, and zinnias, require sufficient nitrogen for robust foliage growth and abundant blooms.
Fast-growing plants: Plants that have rapid growth rates, such as certain fruit trees, corn, or bamboo.

30 15 15 + TE

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
	Foliar spray or dip	
VEGETABLES	10-15 lit/ha per m^3	Throughout the growing season
FRUIT	10-15 lit/ha per m^3	Before flowering and during fruit development
FIELD CROPS	15-15 lit/ha per m^3	During active growth stages
FLOWERS	10-15 lit/ha per m^3	During flowering and growth stages
ORNAMENTAL	10-15 lit/ha per m^3	Throughout the growing season
TREES/SHRUBS	15-25 lit/ha per m^3	During active growth stages
LAWNS	5-10 lit/ha per m^3	Throughout the growing season

COMPOSITION

	w/w
Total nitrogen (N) 20	**30%**
Phosphoric Anhydride (P_2O_5) soluble in water	**15%**
Potassium Oxide (K_2O) soluble in water	**15%**

25kg

Characteristics and features

Stands for Nitrogen (N), Phosphorus (P), and Potassium (K), are three essential nutrients for the plants and 3-37-37, represent the percentage by weight of each nutrient in a water-soluble fertilizer.

3% nitrogen (N)
37% phosphorus (P)
37% potassium (K)
Nitrogen is responsible for promoting leaf and stem growth.
Phosphorus supports root development and flowering.
Potassium helps with overall plant health, disease resistance, and fruit production.
Water-soluble fertilizers are commonly used for indoor plants, hydroponic systems, or as a supplement for outdoor plants.

1- Flowering Plants: Many flowering plants, such as roses, orchids, and hibiscus, have higher phosphorus and potassium needs during their blooming phase. The higher levels of phosphorus and potassium in this fertilizer can promote robust flowering and improve the quality of blooms.
2- Fruit-Bearing Plants: Fruiting plants, such as tomatoes, peppers, and citrus trees, often require increased phosphorus and potassium levels to support fruit production and quality. This NPK ratio can help provide the necessary nutrients for fruit development and enhance yields.
3- Root Crops: Vegetables like carrots, potatoes, and beets focus on root development, making them benefit from higher levels of phosphorus and potassium. This fertilizer can aid in root growth and overall plant health for these types of crops.

3 37 37 + TE

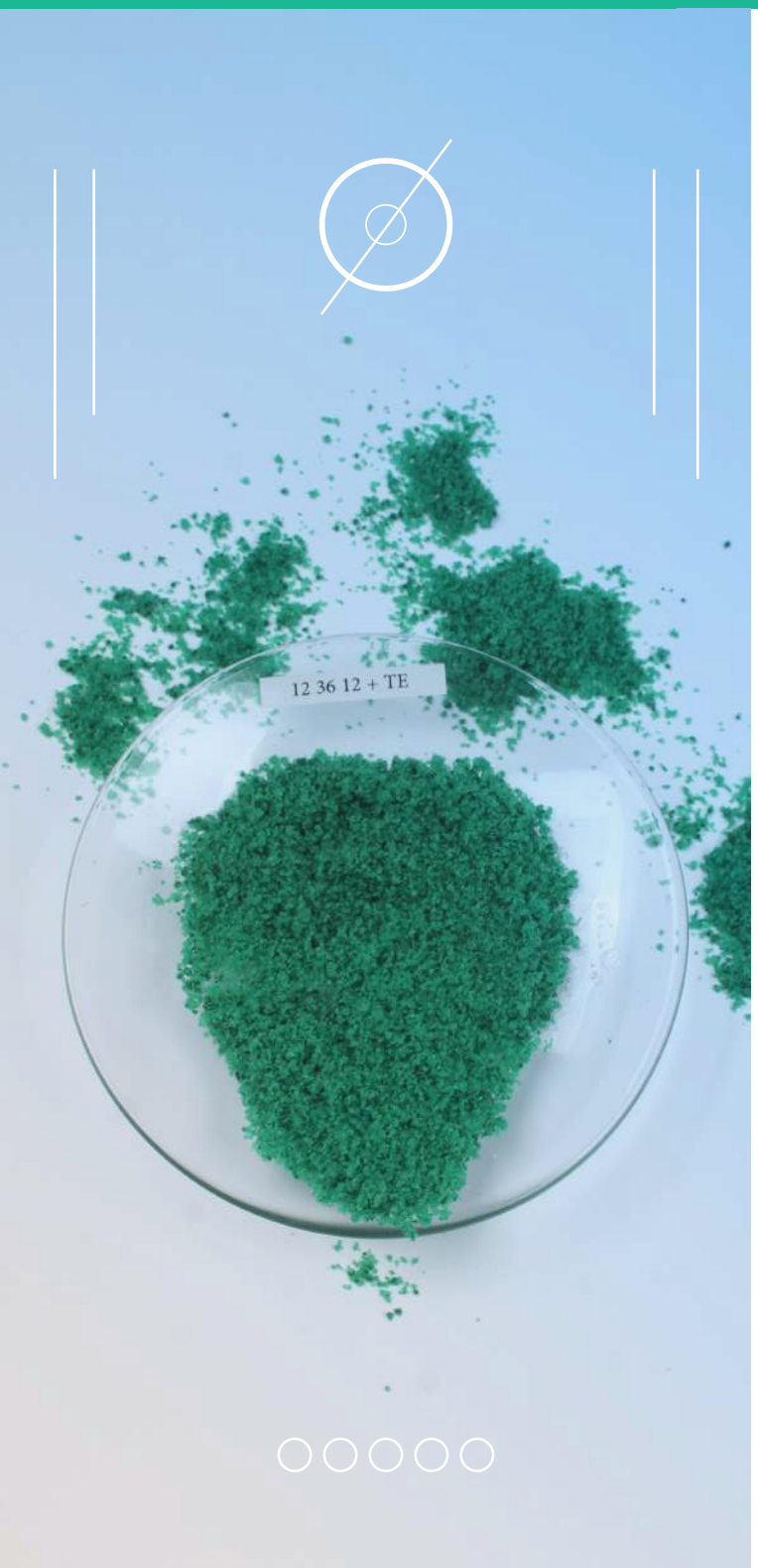
DOSAGE

PLANTS	Foliar (lit/ha/m³)	Drip (lit/ha/m³)	DOSAGES
GRAINS	2-5	5-10	During vegetative growth and flowering
INDUSTRIAL PLANTS	5-10	10-15	Throughout the growing season
OPEN FIELD VEGETABLES	5-10	10-15	Throughout the growing season
GREENHOUSE VEGETABLES	10-15	15-20	Throughout the growing season
FRUIT TREES	15-20	20-25	Before or during the growing season
ORNAMENTALS	5-10	10-15	Throughout the growing season

COMPOSITION

	w/w
Total nitrogen (N) 20	**3%**
Phosphoric Anhydride (P2O5) soluble in water	**37%**
Potassium Oxide (K2O) soluble in water	**37%**

25kg



Characteristics and features

Balanced Nutrient Supply: The balanced ratio of nitrogen, phosphorus, and potassium in NPK 12-36-12 + TE ensures plants receive optimal amounts of these essential nutrients, supporting overall growth and development.

Promotes Root Growth: The high phosphorus content in NPK 12-36-12 + TE stimulates root growth, leading to a strong and healthy root system.

Enhances Flowering and Fruit Formation: The phosphorus-rich formula promotes abundant flowering and improves fruit formation, resulting in higher yields and better fruit quality.

Improves Stress Tolerance: The presence of potassium enhances the plant›s ability to withstand environmental stresses such as drought and disease, contributing to overall stress tolerance.

Includes Essential Trace Elements: NPK 12-36-12 + TE is fortified with essential trace elements, supporting various metabolic processes and ensuring overall plant health.

Versatile Application: NPK 12-36-12 + TE can be used for a wide range of crops and growth stages, making it a convenient choice for growers.

12 36 12 + TE

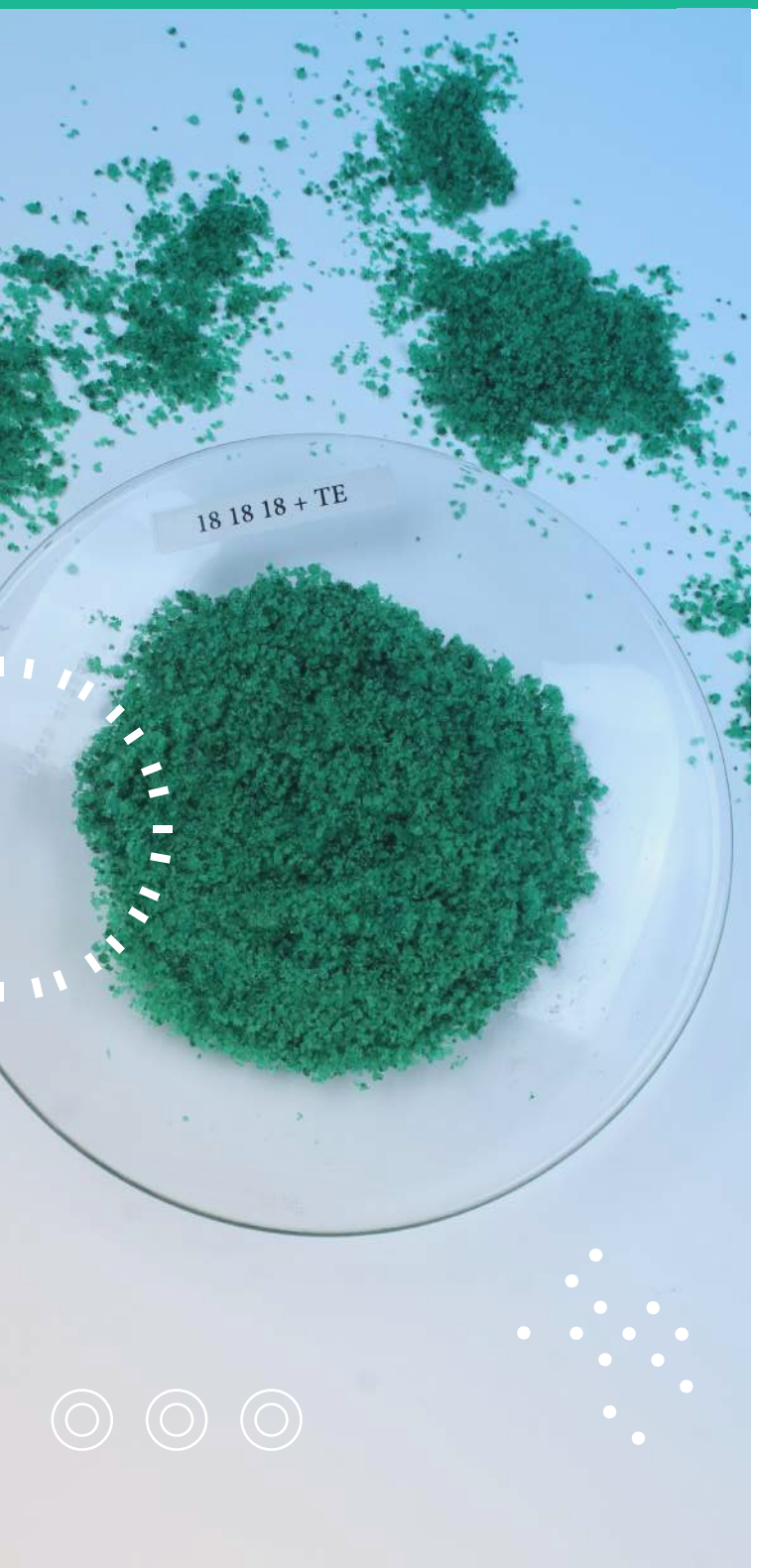
DOSAGE

PLANTS	DOSAGES
FIELD CROPS	25-50 kg / ha
FRUIT TREES	25-50 kg / ha
LEAFY VEGETABLES	25-50 kg / ha
FRUIT VEGETABLES	25-50 kg / ha
ORNAMENTAL PLANT	

COMPOSITION

	w/w
Total nitrogen (N) 20	**12%**
Phosphoric Anhydride (P_2O_5) soluble in water	**36%**
Potassium Oxide (K_2O) soluble in water	**12%**

25kg



Characteristics and features

- With nitrification inhibitor
- Reduces nitrogen losses due to washout
- Increases the availability of nitrogen
- It has an acidifying effect
- Increase the yield

18.18.18+TE fertilizers are designed for slow release and contain the nitrification inhibitor 3.4 DMPP (3.4 Dimethylpyrazolophosphate). These fertilizers are suitable for fertigation in various crops, lawns, and tree nurseries.

By incorporating the 3.4 DMPP nitrification inhibitor, Ennnè fertilizers ensure that nitrogen remains available in the soil for an extended period. This helps minimize losses caused by nitrate leaching, especially in situations where frequent irrigation is required.

18.18.18+TE product line has an acidifying effect on the rhizosphere, which is prolonged over time. This effect is achieved through the presence of easily soluble sulfur and ammoniacal nitrogen, which remain in the soil for an extended duration. As a result, the plant can more efficiently assimilate essential nutrients that are typically less mobile in the soil.

In summary, 18.18.18+TE fertilizers with the 3.4 DMPP nitrification inhibitor provide slow-release benefits, reduce nitrogen losses, and enhance nutrient uptake by the plants through prolonged acidification of the rhizosphere.

18 18 18 + TE

DOSAGE

PLANTS	DOSAGES
FLOWER AND ORNAMENTAL	25-50 kg / ha
FRUIT	25-50 kg / ha
INDUSTRIAL	25-50 kg / ha
HORTICULTURAL	25-50 kg / ha

COMPOSITION

	w/w
Total nitrogen (N) 20	**18%**
of which	
Nitrogen (N) Nitric	**2%**
Ammonia Nitrogen (N)	**6%**
Urea Nitrogen (N)	**10%**
Phosphoric Anhydride (P_2O_5) soluble in water	**18%**
Potassium Oxide (K_2O) soluble in water	**18%**
Sulfur trioxide (SO_3) soluble in water	**16%**

with nitrification inhibitor 3,4 DMPP
(3,4-dimethylpyrazole phosphate)

25kg

Characteristics and features

Balanced Nutrient Supply: The balanced ratio of nitrogen, phosphorus, and potassium in NPK 16-8-24 + TE ensures plants receive adequate amounts of these essential nutrients. This balanced nutrient supply supports overall plant growth, vigor, and productivity.

Promotes Root Development: The phosphorus content in NPK 16-8-24 + TE stimulates root growth and development. It helps plants establish a strong root system, improving nutrient uptake and overall plant health.

Enhances Flowering and Fruiting: The balanced formulation of NPK 16-8-24 + TE promotes abundant flowering and enhances fruit set. It supports the development of healthy, vibrant blooms and contributes to the formation of high-quality fruits.

Improves Stress Tolerance: The presence of potassium in NPK 16-8-24 + TE helps plants cope with various environmental stresses, such as drought, disease, and temperature fluctuations. It enhances the plant›s ability to regulate water balance and withstand challenging growing conditions.

Includes Essential Trace Elements: NPK 16-8-24 + TE is fortified with trace elements (TE) that are crucial for plant growth and metabolism. These trace elements support various physiological processes, contributing to overall plant health and productivity.

Versatile Application: NPK 16-8-24 + TE can be applied to a wide range of crops, including both field crops and horticultural plants. Its versatility makes it suitable for different growth stages, from seedling establishment to flowering and fruiting.

16 8 24 + TE

DOSAGE

PLANTS	Fertigation	Foliar	DOSAGES
FRUIT TREES	150-400 kg / ha	7 – 12 gr / 100 lt	As of fruit setting / Until 4 weeks before harvesting
POTATO	100-200 kg / ha	5 – 8 gr / 100 lt	As of tuber initiation / Until tuber filling
FRUIT VEGETABLES	100-300 kg / ha	4 – 8 gr / 100 lt	As of fruit setting / Until 2 weeks before harvesting
CITRUS	150-400 kg / ha	3 – 8 gr / 100 lt	During entire fertigation program
VINEYARDS	100-250 kg / ha	4 – 8 gr / 100 lt	During entire fertigation program
STRAWBERRY	150-300 kg / ha	6 – 15 gr / 100 lt	As of vegetative growth / Until fruit setting
MELON	150-300 kg / ha	6 – 15 gr / 100 lt	As of fruit setting / Until start of maturation

COMPOSITION

	w/w
Total nitrogen (N) 20	**16%**
Phosphoric Anhydride (P2O5) soluble in water	**8%**
Potassium Oxide (K2O) soluble in water	**24%**

25kg

Characteristics and features

Balanced Nutrient Supply: The balanced ratio of nitrogen, phosphorus, and potassium in NPK 20-10-20 + TE provides plants with a well-rounded nutrient supply. This balanced formulation supports overall plant growth, vigor, and productivity.

Promotes Lush Foliage: The nitrogen content in NPK 20-10-20 + TE stimulates leafy green growth, resulting in lush foliage. This is particularly beneficial for plants that require abundant foliage, such as leafy vegetables and ornamental plants.

Enhances Flowering and Fruiting: The balanced formulation of NPK 20-10-20 + TE supports optimal flower and fruit development. It provides the necessary nutrients for abundant blooms and promotes healthy fruit set, leading to improved flowering and higher-quality fruits.

Strengthens Plant Structure: The phosphorus component in NPK 20-10-20 + TE plays a vital role in strengthening plant structure. It supports root development, stem strength, and overall plant integrity, contributing to better resistance against lodging and damage.

Includes Essential Trace Elements: NPK 20-10-20 + TE is fortified with essential trace elements (TE) that are necessary for various plant processes. These trace elements, such as iron, zinc, and manganese, support enzyme activities and enhance overall plant health.

Versatile Application: NPK 20-10-20 + TE can be used for a wide range of crops, including both field crops and horticultural plants. It is suitable for different growth stages, from seedling establishment to flowering and fruiting.

20 10 20 + TE

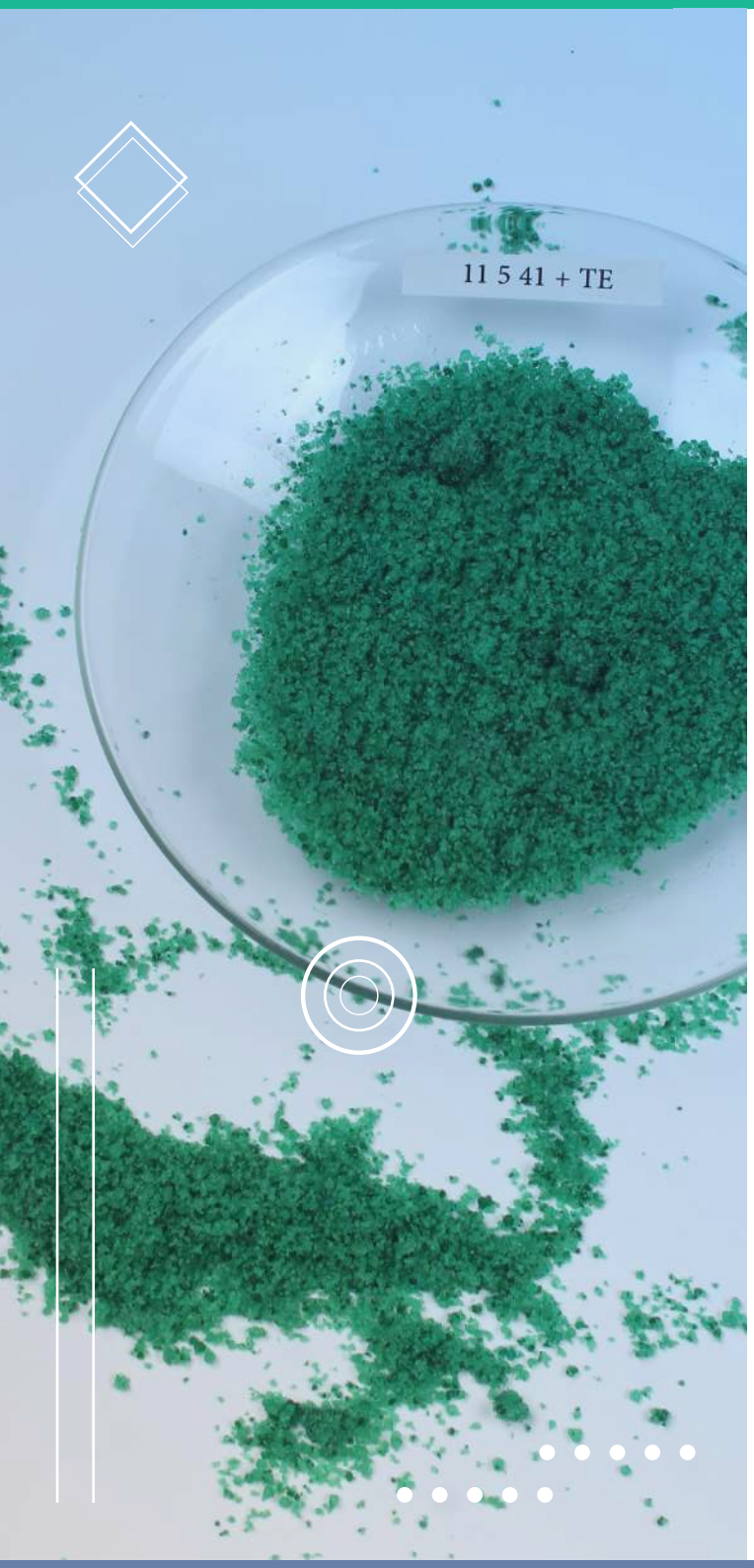
DOSAGE

PLANTS	DOSAGES
FLOWER AND ORNAMENTAL	25-50 kg / ha
FRUIT	25-50 kg / ha
INDUSTRIAL	25-50 kg / ha
HORTICULTURAL	25-50 kg / ha

COMPOSITION

	w/w
Total nitrogen (N) 20	**20%**
Phosphoric Anhydride (P_2O_5) soluble in water	**10%**
Potassium Oxide (K_2O) soluble in water	**20%**

25kg



Characteristics and features

Promotes Balanced Nutrition: The balanced ratio of nitrogen (N), phosphorus (P), and potassium (K) in NPK 11-5-41 + TE ensures that plants receive adequate amounts of these essential macronutrients. This balanced nutrition supports overall plant growth, root development, and photosynthesis.

Enhances Flowering and Fruit Production: The high phosphorus content in NPK 11-5-41 + TE is beneficial for flowering and fruiting plants. Phosphorus plays a crucial role in promoting flower formation, increasing fruit set, and enhancing the quality of fruits. It supports the transfer of energy within the plant, leading to improved reproductive processes.

Boosts Root Development: The potassium (K) content in NPK 11-5-41 + TE aids in root development and improves nutrient uptake efficiency. It helps plants better withstand environmental stresses, such as drought or disease, and enhances their overall resilience.

Includes Essential Trace Elements: NPK 11-5-41 + TE is fortified with essential trace elements (TE) that are vital for plant growth and metabolism. These trace elements, such as iron, zinc, and manganese, support enzyme activities and enhance plant health and productivity.

Versatile Application: NPK 11-5-41 + TE can be applied to a wide range of crops, including field crops, horticultural plants, and fruit trees. Its versatility makes it suitable for various growth stages, from seedling establishment to flowering and fruit development.

11 5 41 + TE

DOSAGE

PLANTS	DOSAGES
FLOWER AND ORNAMENTAL	25-50 kg / ha
FRUIT	25-50 kg / ha
INDUSTRIAL	25-50 kg / ha
HORTICULTURAL	25-50 kg / ha

COMPOSITION

	w/w
Total nitrogen (N) 20	**11%**
Phosphoric Anhydride (P_2O_5) soluble in water	**5%**
Potassium Oxide (K_2O) soluble in water	**41%**

25kg

Characteristics and features

- Complete lack of urea.
- Diminished salt content.
- Suitable for alkaline soils
- Ideal for plants that are susceptible to chlorine.

The Hermasol line comprises complex water-soluble fertilizers that are free from urea nitrogen and chlorides, and they are enriched with microelements.

The specific formulation of the Hermasol line, featuring nitric and ammoniacal nitrogen and completely devoid of urea nitrogen, allows for application on soils with a sub-alkaline and alkaline pH reaction, ensuring the appropriate acidification of the rhizosphere. On alkaline soils, the hydrolysis of urea nitrogen into ammonium carbamate would otherwise lead to an increase in soil pH and a decline in crop productivity.

15-30-15

DOSAGE

PLANTS	DOSAGES
FLOWER AND ORNAMENTAL	25-50 kg / ha
FRUIT	25-50 kg / ha
INDUSTRIAL	25-50 kg / ha
HORTICULTURAL	25-50 kg / ha

COMPOSITION

	w/w
Total nitrogen (N)	**15%**
of which	
Nitrogen (N) Nitric	**6%**
Ammonia Nitrogen (N)	**9%**
Phosphoric Anhydride (P_2O_5) soluble in water	**30%**
Potassium Oxide (K_2O) soluble in water	**15%**
Boron (B) soluble in water	**0.01%**
Copper (Cu) chelated with EDTA	**0.01%**
Iron (Fe) chelated with EDTA	**0.03%**
Manganese (Mn)	**0.02%**
Zinc (Zn)	**0.01%**

25kg

Characteristics and features

Balanced Nutrition: The NPK ratio of 09-0-40 ensures a significant supply of potassium (K) while being deficient in nitrogen (N) and phosphorus (P). This balanced nutrient composition supports healthy plant growth and development.

Potassium Boost: The high potassium content (40) in this formulation promotes enhanced flowering, fruiting, and overall plant vigor. Potassium is crucial for various physiological processes such as osmoregulation, enzyme activation, and nutrient transport within plants.

Chloride-Free: The absence of chloride (0) in the formulation makes it suitable for crops sensitive to chloride toxicity. This allows for safe application on chlorine-sensitive plants, preventing any adverse effects.

Water Solubility: Being water-soluble, this fertilizer dissolves readily in water, ensuring easy application and absorption by plant roots. It facilitates efficient nutrient uptake, particularly in hydroponic or fertigation systems.

Trace Elements (TE): The inclusion of trace elements provides additional micronutrients essential for plant health. These micronutrients, such as iron (Fe), manganese (Mn), zinc (Zn), copper (Cu), and others, play vital roles in enzyme activation, photosynthesis, and overall metabolic processes.

Customizable Application: Water-soluble fertilizers offer flexibility in adjusting nutrient concentrations according to specific crop requirements. This allows for precise and controlled nutrient application, catering to the unique needs of different plants.

Fast-Acting: Water-soluble fertilizers are readily available to plants, ensuring quick nutrient uptake and utilization. This promotes rapid growth responses and helps address nutrient deficiencies promptly.

pH Regulation: Water-soluble fertilizers can influence and regulate soil pH to some extent, depending on the specific formulation. This can be beneficial in adjusting soil acidity or alkalinity, creating more favorable growing conditions for certain crops.

09-0-40+TE

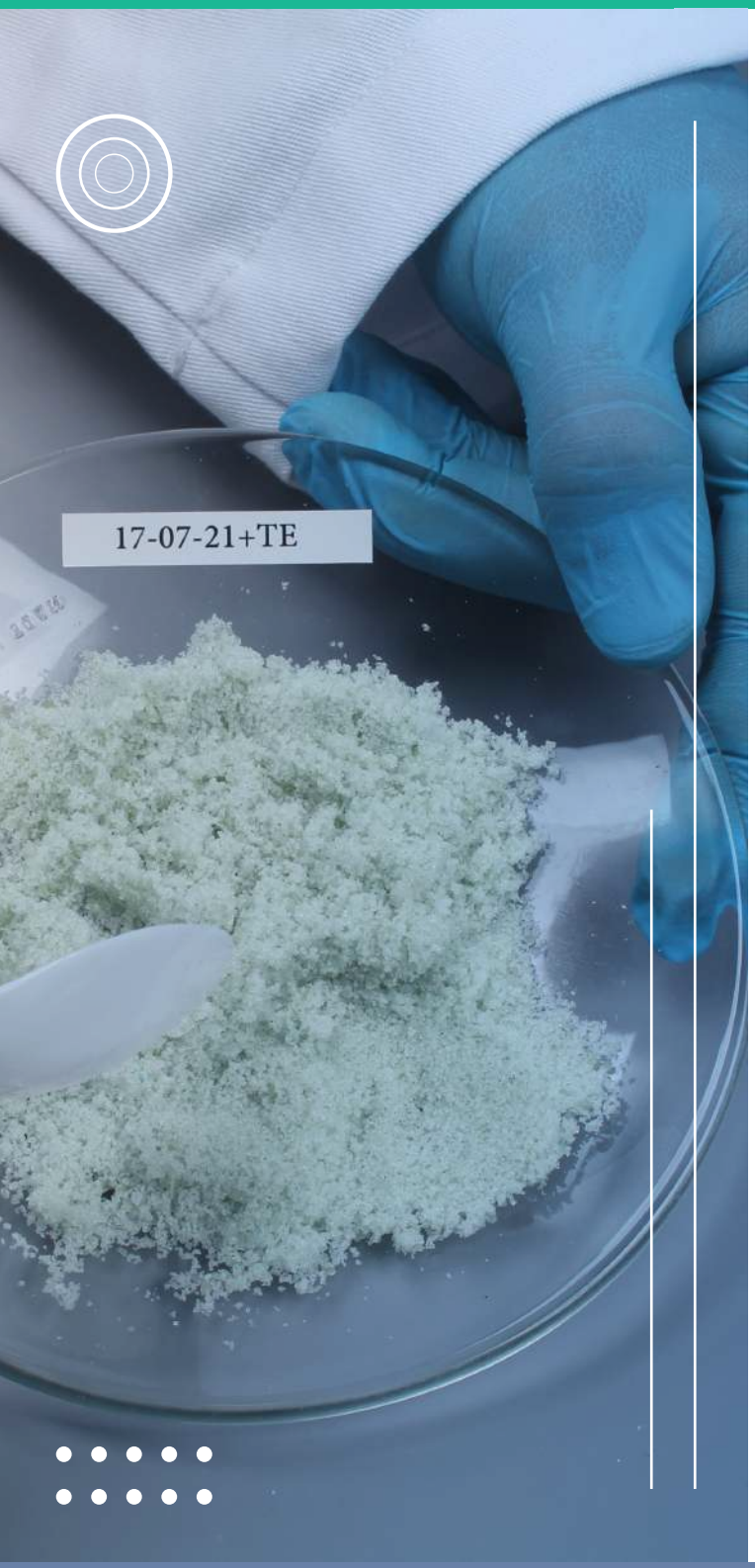
DOSAGE

PLANTS	DOSAGES
FLOWER AND ORNAMENTAL	25-50 kg / ha
FRUIT	25-50 kg / ha
INDUSTRIAL	25-50 kg / ha
HORTICULTURAL	25-50 kg / ha

COMPOSITION

	w/w
Total nitrogen (N)	**9**
Phosphoric Anhydride (P_2O_5) soluble in water	**0**
Potassium Oxide (K_2O) soluble in water	**40**

25kg



Characteristics and features

Water-soluble NPK 17-07-21+TE offers several advantages for plant growth and development. With a balanced combination of nitrogen, phosphorus, and potassium, it provides comprehensive nutrition to support healthy plant growth. The inclusion of trace elements further enhances plant performance by fulfilling micronutrient requirements. Being water-soluble, it allows for easy application and efficient uptake by plants, making it suitable for hydroponic systems or fertigation. This fertilizer promotes quick nutrient release and absorption, leading to rapid growth responses and improved productivity. Additionally, it offers flexibility in adjusting nutrient concentrations based on specific crop needs, facilitating precise and customizable application. Overall, water-soluble NPK 17-07-21+TE simplifies nutrient management and contributes to optimal plant nutrition for enhanced crop performance.

The water-soluble NPK 17-07-21+TE formulation is designed to provide balanced nutrition and promote plant health. It combines essential elements such as nitrogen, phosphorus, and potassium in appropriate proportions to support key aspects of plant growth. The inclusion of trace elements ensures the availability of micronutrients necessary for vital metabolic processes. This water-soluble fertilizer dissolves readily, allowing for easy application and efficient absorption by plants. Its fast-release nature enables quick nutrient uptake and utilization, leading to rapid growth and development. With the ability to adjust nutrient concentrations, it offers customizable application options tailored to the specific needs of different crops. Overall, the water-soluble NPK 17-07-21+TE formulation contributes to healthy plant growth, increased productivity, and improved nutrient management.

17-07-21+TE

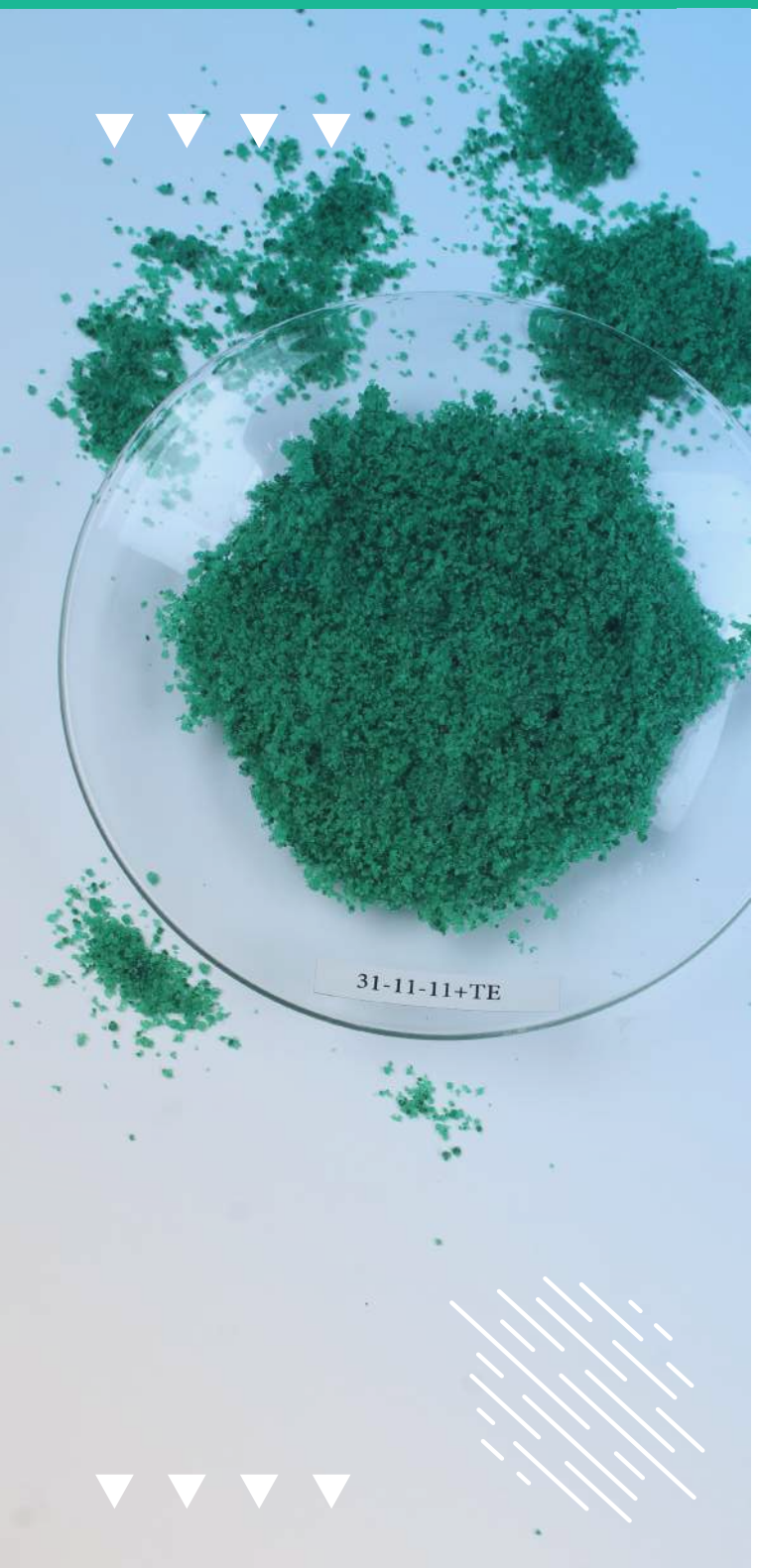
DOSAGE

PLANTS	DOSAGES
FLOWER AND ORNAMENTAL	25-50 kg / ha
FRUIT	25-50 kg / ha
INDUSTRIAL	25-50 kg / ha
HORTICULTURAL	25-50 kg / ha

COMPOSITION

	w/w
Total nitrogen (N)	**17**
Phosphoric Anhydride (P_2O_5) soluble in water	**7**
Potassium Oxide (K_2O) soluble in water	**21**

25kg



Characteristics and features

High Nitrogen Content: The significant nitrogen (N) content of 31 promotes lush foliage growth, vibrant green coloration, and overall plant vigor. Nitrogen is crucial for the formation of proteins, enzymes, and chlorophyll, which are essential for various physiological processes.

Balanced Phosphorus and Potassium: The balanced ratio of phosphorus (P) and potassium (K) at 11-11 supports root development, flower formation, and fruit production. Phosphorus is involved in energy transfer and promotes strong root systems, while potassium enhances disease resistance, water regulation, and overall plant health.

Quick-Release Fertilizer: The high solubility of this fertilizer allows for rapid nutrient release and availability to plants. This ensures prompt nutrient uptake, enabling fast growth responses and efficient correction of nutrient deficiencies.

Trace Element Support: The inclusion of trace elements provides essential micronutrients that support optimal plant growth. These trace elements, including iron (Fe), manganese (Mn), zinc (Zn), copper (Cu), and others, play critical roles in enzymatic activities, photosynthesis, and overall metabolic processes.

Versatile Application: NPK 31-11-11+TE can be used for various crops and in different cultivation systems, such as field crops, horticulture, and greenhouse production. It caters to the nutrient requirements of a wide range of plants, promoting healthy growth and higher yields.

Convenient Nutrient Management: The balanced NPK ratio simplifies nutrient management, as it provides a comprehensive blend of essential elements in a single fertilizer. This facilitates accurate and convenient application, ensuring plants receive the necessary nutrients for optimal growth.

Increased Crop Productivity: The combination of high nitrogen, balanced phosphorus and potassium, along with trace elements, promotes robust plant growth, enhanced flowering, and improved fruit or yield quality. This leads to increased crop productivity and overall agricultural profitability.

31-11-11+TE

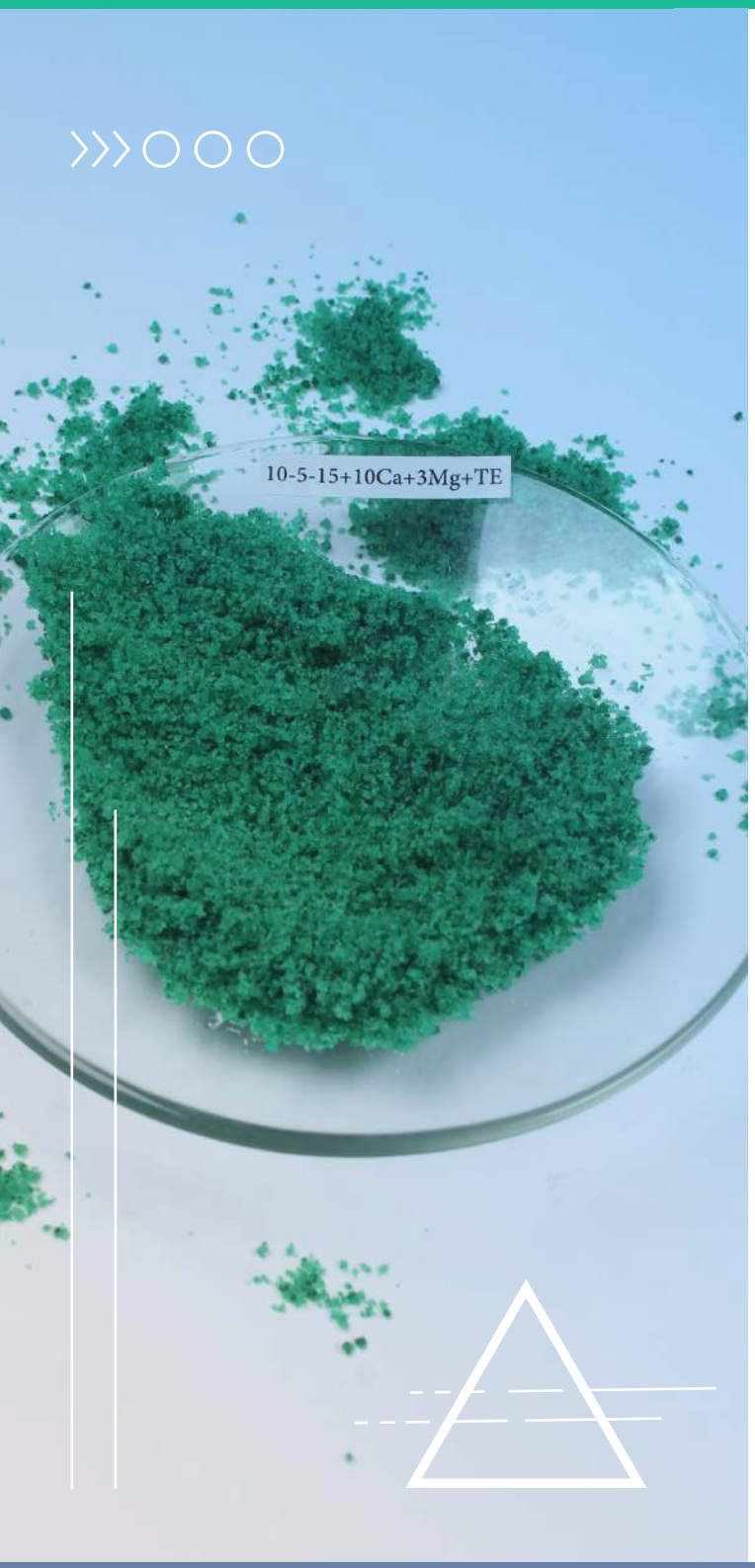
DOSAGE

PLANTS	DOSAGES
FLOWER AND ORNAMENTAL	25-50 kg / ha
FRUIT	25-50 kg / ha
INDUSTRIAL	25-50 kg / ha
HORTICULTURAL	25-50 kg / ha

COMPOSITION

	w/w
Total nitrogen (N)	**31**
Phosphoric Anhydride (P_2O_5) soluble in water	**11**
Potassium Oxide (K_2O) soluble in water	**11**

25kg



Characteristics and features

Balanced Nutrition: NPK 10-5-15 provides a balanced combination of nitrogen, phosphorus, and potassium, supporting overall plant health and development. Nitrogen promotes growth, phosphorus aids in root and flower development, and potassium enhances stress tolerance.

Rapid Nutrient Availability: This water-soluble fertilizer quickly dissolves, making nutrients readily available for plants. It ensures efficient nutrient uptake by plant roots, leading to fast growth responses.

Versatile Application: NPK 10-5-15 is suitable for various crops and can be applied through different methods such as irrigation, foliar spraying, or hydroponics, offering flexibility in application.

Customizable Nutrient Concentrations: Water-soluble fertilizers allow for precise nutrient management by adjusting concentrations based on specific crop needs. This ensures optimal nutrient utilization and reduces the risk of imbalances.

10-5-15

DOSAGE

PLANTS	DOSAGES
FLOWER AND ORNAMENTAL	25-50 kg / ha
FRUIT	25-50 kg / ha
INDUSTRIAL	25-50 kg / ha
HORTICULTURAL	25-50 kg / ha

COMPOSITION

	w/w
Total nitrogen (N)	**10**
Phosphoric Anhydride (P_2O_5) soluble in water	**5**
Potassium Oxide (K_2O) soluble in water	**15**

25kg

RAW-MATERIAL

Herma®

Agro-Chemical Products

Characteristics and features

DAP is granulated manufactured in a high-tech way and dried for easy storage and use by farms and contains essential and micronutrients that meet plant needs.
It is used between 300-500 kg / hectare as needed, repeated for all types of field crops, fruit trees and vegetables.

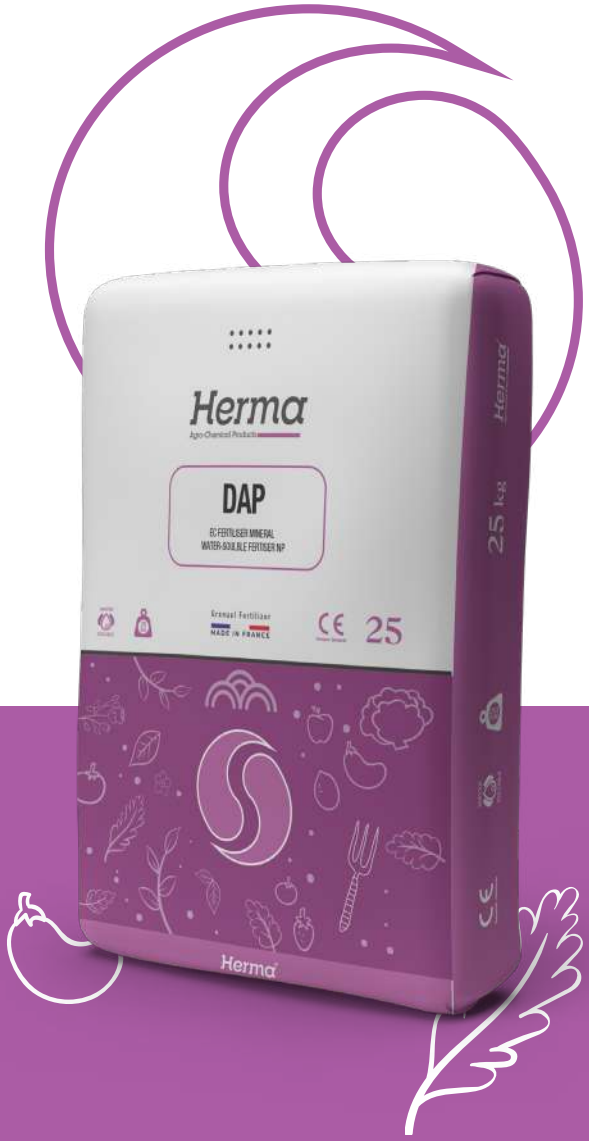
DAP

DOSAGE

PLANTS	DOSAGES
FIELD CROPS	300-500 kg / ha
FRUIT TREES	300-500 kg / ha
VEGETABLES	300-500 kg / ha

COMPOSITION

	w/w
Nitrogen (N)	**18**
Phosphorus (P2O5)	**46**



25kg

Characteristics and features

- Completely soluble in water without any precipitation occurring.
- The chlorine and sodium levels are minimal or low.
- Devoid of heavy metal elements.
- Appropriate for use in nutrient solutions.
- Acidic pH
- Enhanced development of roots
- Increased flowering in crops.

Herma MAP is a pure and residue-free form of monoammonium phosphate (12-61-0) that is completely soluble in water.

Both the nitrogen and phosphorus present in MAP 12.61 are easily absorbed by plants.

It is recommended to use MAP during the early stages of plant development when a significant amount of phosphorus is needed to promote root growth. Additionally, during the flowering phase, MAP can be used to fertilize the flowers.

Herma MAP can be combined with other fertilizers to provide crops with the necessary nutrients throughout the entire growth cycle. However, it should not be mixed with calcium-based and magnesium fertilizers when preparing a concentrated solution.

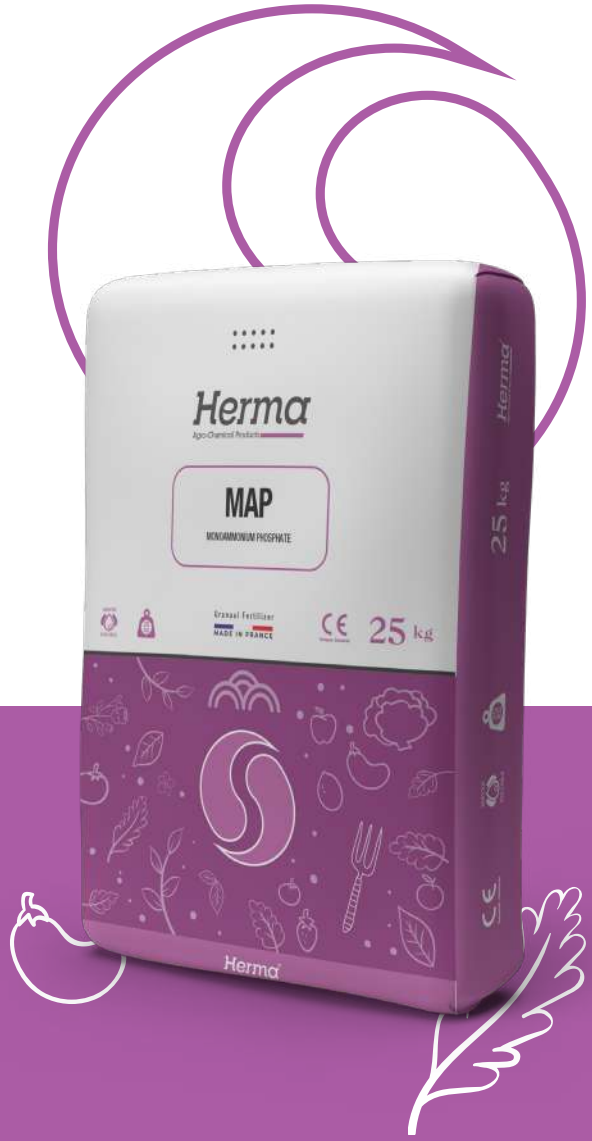
HERMA MAP

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
CITRUS	80 – 100 kg/ha	at the beginning of sprouting and before flowering
VINEYARD	80 – 90 kg/ha	at the beginning of sprouting and before
HORTICULTURAL CROPS in open field	60 – 70 kg/ha	from fruit set to 2 – 3 weeks before harvesting
HORTICULTURAL CROPS in greenhouse	70 – 80 kg/ha	from fruit set to 2 – 3 weeks before harvesting
FLOWERS	30 – 50 kg/ha	sowing and before flowering

COMPOSITION

	w/w
Total Nitrogen	**12%**
of which Ammonial Nitrogen	**12%**
Phosphorus Pentoxide (P2O5) water soluble	**61%**



25kg

Characteristics and features

- Completely soluble in water without any precipitation occurring.
- The chlorine and sodium levels are minimal or low.
- Devoid of heavy metal elements.
- Acidic pH
- Characterized by a low salinity index
- Enhanced coloration and increased resistance to mechanical damage
- Stimulated root development

MKP is a fully water-soluble monopotassium phosphate (0-52-34) that leaves no residue behind.

MKP is most effective during the initial stages of plant development when a significant amount of Phosphorus is required to promote root growth. It can also be applied before flowering and after fruit set to enhance flower fertilization and facilitate fruit growth.

MKP provides crops with an adequate supply of both Phosphorus and Potassium and serves as a valuable Phosphorus source for soilless crops. Additionally, it aids in the ripening of fruits after the fruit set stage.

MAP can be combined with other fertilizers to provide crops with the necessary nutrients throughout the entire growth cycle. It›s important not to mix the concentrated solution with Calcium-based and Magnesium fertilizers.

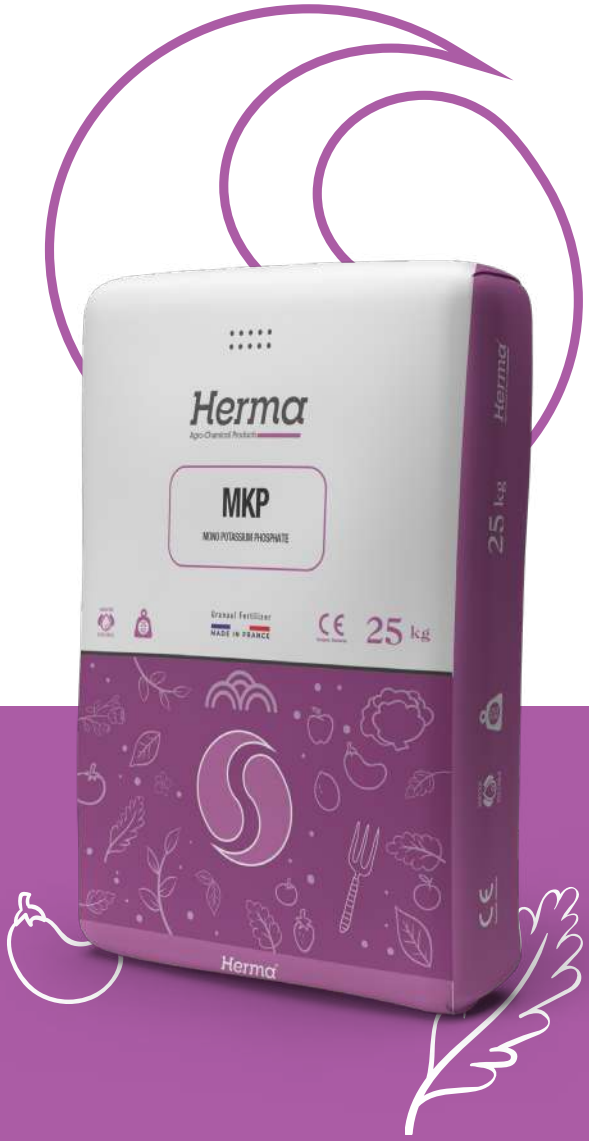
MKP

DOSAGE

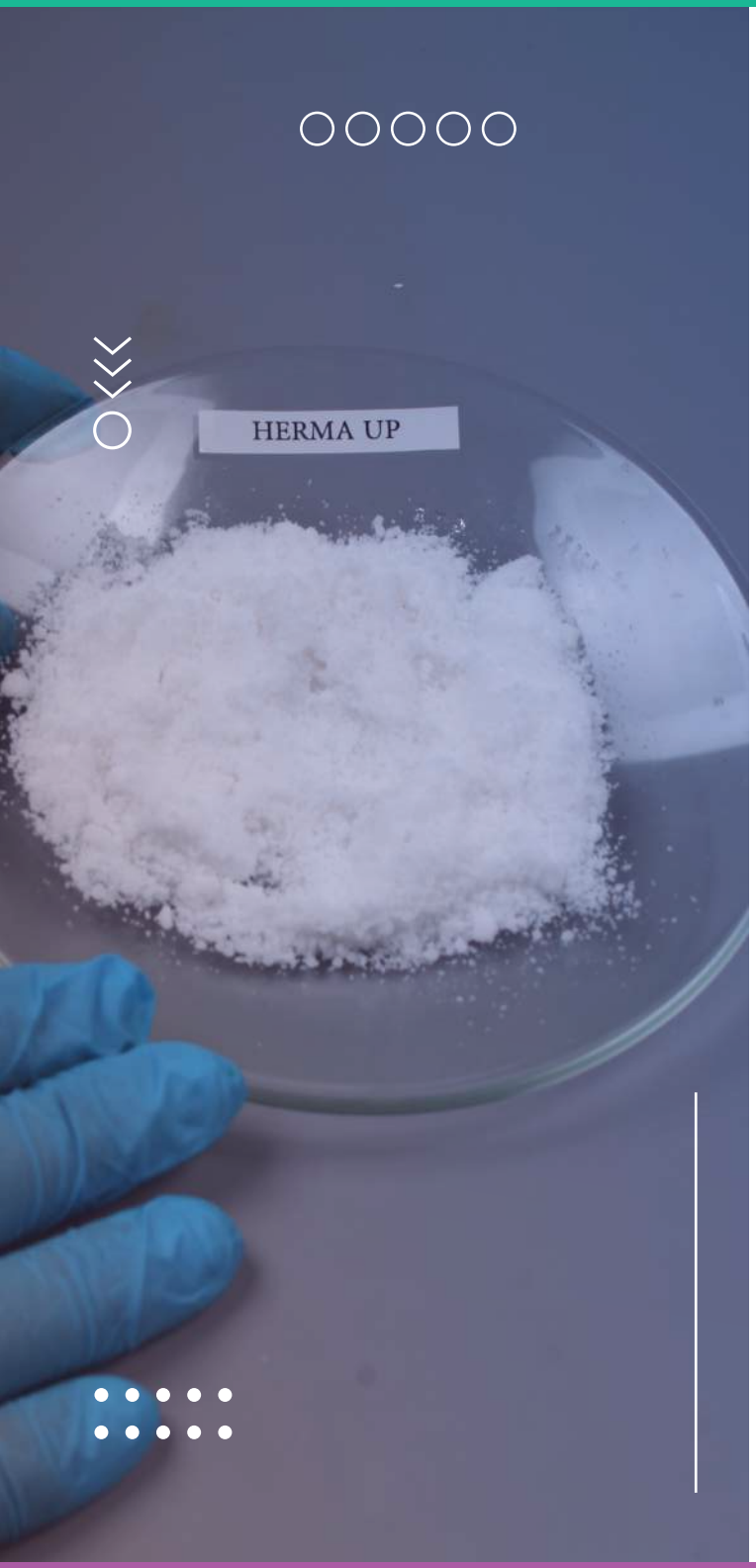
PLANTS	DOSAGES	APPLICATION PERIOD
CITRUS & OLIVE TREE	30 – 40 kg/ha	distribute 2 – 3 times a month after fruit set
WINE GRAPES	35 – 45 kg/ha	distribute 1 – 2 times a month after fruit set
TABLE GRAPES	40 – 50 kg/ha	distribute 1 – 2 times a month after fruit set
POME & STONE FRUITS	30 – 40 kg/ha	distribute 2 – 3 times a month after fruit set
KIWI	35 – 45 kg/ha	distribute 2 – 3 times a month after fruit set
HORTICULTURAL CROPS in open field	30 – 40 kg/ha	from fruit set to 2 – 3 weeks before harvesting
HORTICULTURAL CROPS in greenhouse	40 – 50 kg/ha	from fruit set to 2 – 3 weeks before harvesting
FLOWERS	50 – 55 kg/ha	during all the vegetative season

COMPOSITION

	w/w
PHOSPHORUS PENTOXIDE (P_2O_5) water soluble	**52%**
POTASSIUM OXIDE (K_2O) water soluble	**34%**



25kg



Characteristics and features

UP Urea Phosphate is a highly concentrated and pure crystal hydrosoluble fertilizer. It contains significant levels of urea nitrogen and Phosphorus.

For optimal results, UP is best applied during the early stages of plant growth, as this is when plants have a high demand for Phosphorus to support the development of a strong and healthy root system.

The unique composition of UP creates a powerful acidifying effect, which serves to cleanse and eliminate any build-up or deposits within the fertigation system. It also helps release essential trace elements from soil colloidal particles, making them available for plant uptake.

Using pure salts for fertigation enables precise adjustment of nutrient supply to meet the specific requirements of different crops.

UP UREA PHOSPHATE is a water-soluble fertilizer presented in crystalline form, distinguished by its high purity and elevated concentrations of Ureic Nitrogen and Phosphorus. It is recommended for use during the early vegetative growth stage, as plants have a substantial need for phosphorus to establish a well-developed root system.

Its unique formulation possesses a strong acidifying action that facilitates the release of trace elements from soil colloids and helps maintain a clean irrigation system by preventing blockages.

HERMA UP

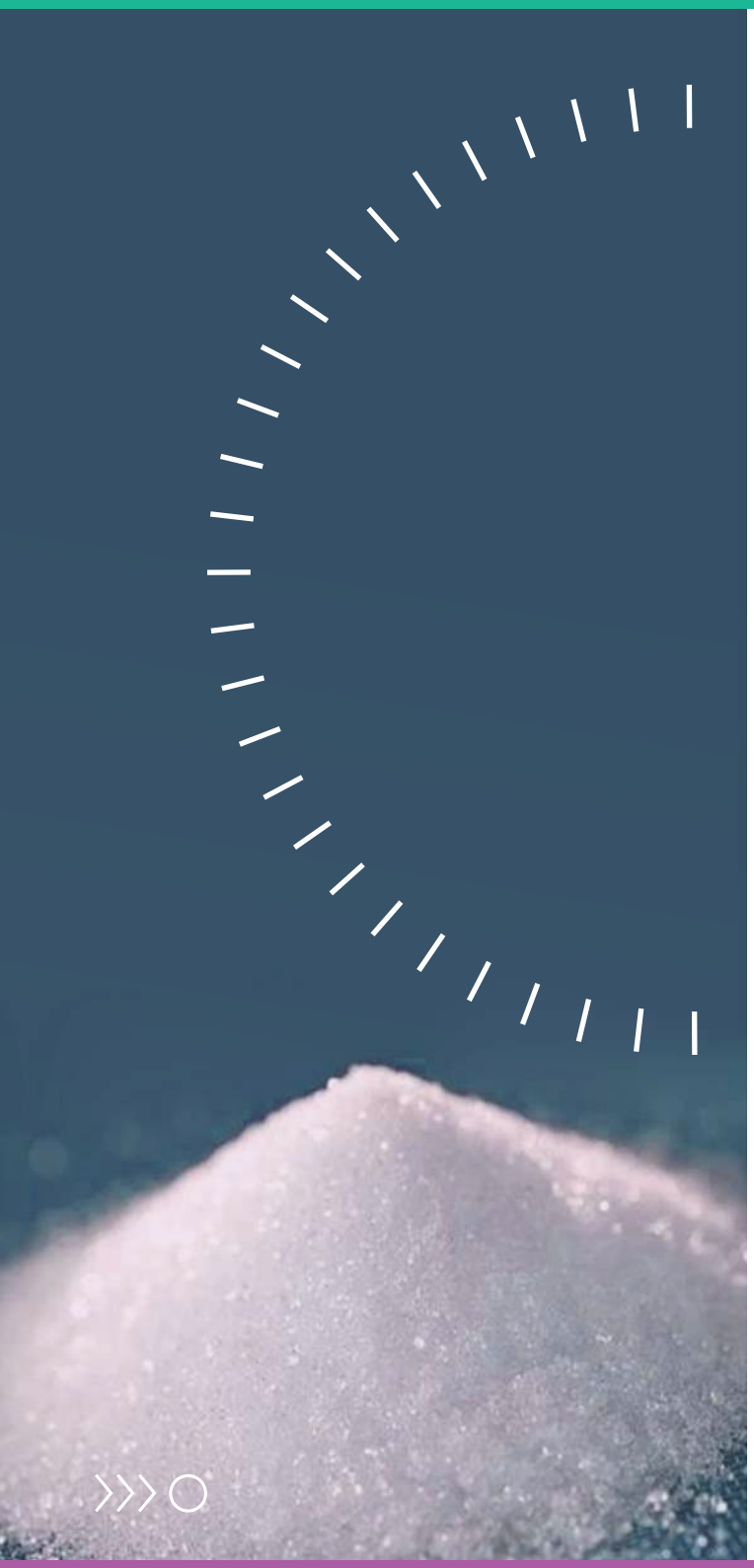
DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
VINEYARD	100 – 200 Kg/ha	At the beginning of vegetative growth and before flowering
POME FRUIT	80 – 120 Kg/ha	At the beginning of vegetative growth and before flowering
STONE FRUIT	100 – 200 Kg/ha	At the beginning of vegetative growth and before flowering
CITRUS	100 – 200 Kg/ha	At the beginning of vegetative growth and before flowering
KIWI	150 – 250 Kg/ha	At the beginning of vegetative growth and before flowering
OLIVE TREE	100 – 200 Kg/ha	At the beginning of vegetative growth and before flowering
TROPICAL TREE	80 – 120 Kg/ha	At the beginning of vegetative growth and before flowering
STRAWBERRY	50 – 60 kg/ha	At the transplant and before flowering
HORTICULTURAL CROPS in open field	70 – 100 Kg/ha	sowing and before flowering
HORTICULTURAL CROPS in greenhouse	50 – 70 Kg/ha	sowing and before flowering
FLOWERS	30 – 50 kg/ha	during all the vegetative season

COMPOSITION

	w/w
Total Nitrogen (N)	**18%**
of which urea Nitrogen (N)	**18%**
Phosphorus Pentoxide (P2O5) water soluble	**44%**

25kg



Characteristics and features

Ammoniak offers several benefits as a fertilizer. Firstly, it contains a high nitrogen content of 21%, providing plants with a readily available source of this essential nutrient. Nitrogen plays a crucial role in promoting plant growth and development, particularly in stimulating leaf and stem growth. With Ammonium Sulfate N21, plants can access the nitrogen they need for optimal growth and improved crop yields.

Secondly, **Ammoniak** also supplies 24% sulfur, which is equally important for plant health. Sulfur is involved in key metabolic processes, such as protein synthesis, enzyme activity, and chlorophyll formation. By incorporating Ammonium Sulfate N21 into fertilization practices, plants can benefit from an adequate supply of sulfur, leading to improved nutrient uptake, enhanced plant vigor, and better crop quality.

In addition to its nutrient content, **Ammoniak** offers practical advantages. Its high solubility makes it easily absorbable by plant roots, ensuring efficient nutrient delivery. Moreover, its acidifying effect on soil pH can be beneficial for crops that thrive in acidic soil conditions or require lower pH levels. Overall, the versatility, compatibility with other fertilizers, and balanced nutrient content of Ammonium Sulfate N21 make it a valuable choice for promoting healthy plant growth, maximizing crop yields, and maintaining nutrient balance in agricultural practices.

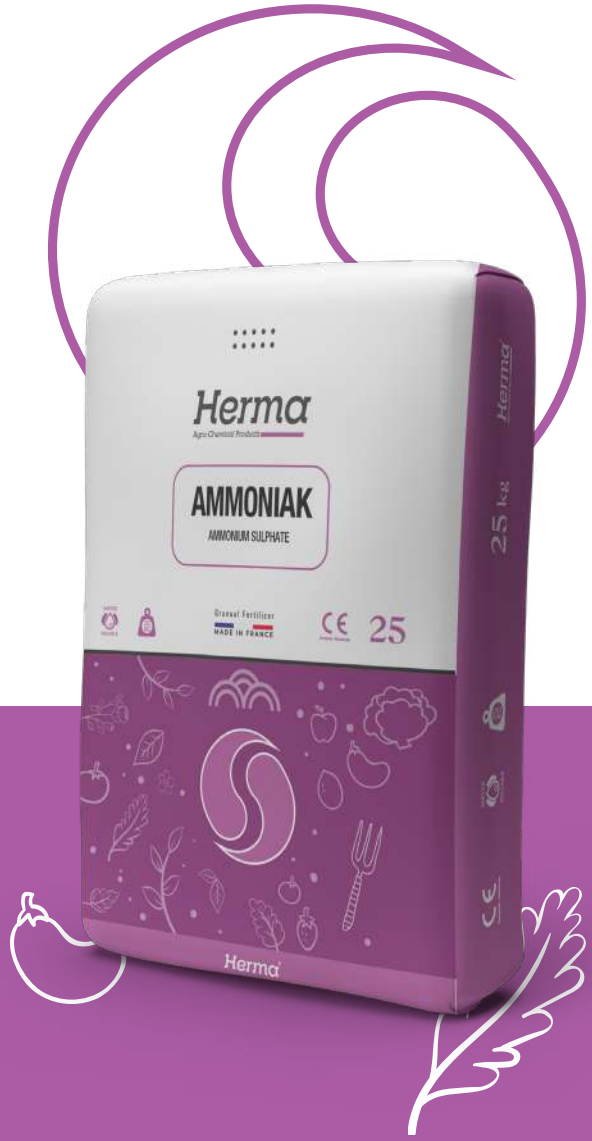
AMMONIAK

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
Wheat	100-300 kg/ha	from sowing to tillering
Barley, oats, rye	100-300 kg/ha	from sowing to tillering
Corn	100-200kg/ha	at sowing
Potato	300-400 kg/ha	at sowing
Tomato	200-300 kg/ha	the tamping
Citrus	300-500 kg/ha	end of winter
Olive tree	200-40 kg/ha	end of winter

COMPOSITION

	w/w
Total Nitrogen	**21%**
of which Nitrogen Ammoniacal (N)Total	**21%**
Sulfur (SO3)	**60%**



25kg

Characteristics and features

- Fully hydrosoluble
- Tickened peel and consequent better mechanical damage resistance
- Low in Chlorine
- No sulphates
- No heavy metals
- Suitable for nutrient solutions.

Niagra is a fully water-soluble Calcium nitrate fertilizer that is free of any impurities or residues.

The presence of Calcium in Niagra enhances fruit quality and improves tissue tolerance, resulting in an extended shelf-life for agricultural products.

Since Calcium is not naturally mobile within plants, it must be continuously provided throughout all growth stages to maintain appropriate levels in the foliage and ensure proper plant development.

The Nitrogen content in Niagra is easily absorbed by plants and facilitates the absorption of Calcium as well.

Calcium plays a crucial role in determining the overall quality of fruit-bearing plants, particularly kiwis, from the initial fruit set stage until a few weeks prior to harvest.

Niagra can be combined with any water-soluble fertilizer, except for solutions containing phosphates or sulphates.

NIAGRA

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
OLIVE TREE	100 – 150 kg/ha	from the sprouting to the maturation
CITRUS	80 – 90 kg/ha	from the sprouting to the maturation
WINE GRAPES	60 – 80 kg/ha	from fruit set to 2 – 3 weeks before harvesting set
TABLE GRAPES	80 – 90 kg/ha	from fruit set to 2 – 3 weeks before harvesting set
POME & STONE FRUITS	100 – 120 kg/ha	from fruit set to 2 – 3 weeks before harvesting set
KIWI	150 – 200 kg/ha	from the sprouting to the fruit set
HORTICULTURAL CROPS in open field	60 – 70 kg/ha	from fruit set to 2 – 3 weeks before harvesting
HORTICULTURAL CROPS in greenhouse	70 – 80 kg/ha	from fruit set to 2 – 3 weeks before harvesting
FLOWERS	50 – 60 kg/ha	during all the vegetative season

COMPOSITION

	w/w
total NITROGEN (N)	**15.5%**
of which Nitric Nitrogen (N)	**14.5%**
of which Ammonical Nitrogen (N)	**1%**
CALCIUM OXIDE (CaO) water soluble	**26.5%**

25kg

Characteristics and features

- Fully water-soluble, no precipitation
- Rapid foliar and radical absorption, thanks to the interaction between Magnesium and nitric Nitrogen
- Rapid greening effect on the crops
- Best photosynthesis process, as Mg is the fundamental element of Chlorophyll
- Effective against MgO deficiencies
- Also effective in the nutrition of high-pH limestone soils with hard water.

Nimag is an excellent choice for supplying Magnesium through fertigation during critical plant growth stages. Regular applications every 10-15 days are recommended to prevent Magnesium deficiency. Nimag is easily absorbed and ready-to-use, but should not be mixed with phosphate or copper fertilizers or highly alkaline products. Here are some benefits of using Nimag for different crops:

Citrus: Increases Magnesium levels, leading to higher production and larger fruit size.
Grapes: Prevents stalk drying and improves must acidity during pre-veraison and ripening.
Apple: Combining Nimag with Zinc-based products helps eradicate Zinc deficiency-related diseases and manages premature leaf fall.
Tomato: Enhances fruit production and quality throughout the fructification period.
Potato: Increases dry matter, starch levels, and overall fruit quality.
Wheat: Improves protein content and reduces damages from Septoria and rust diseases.
Sugar beet: Increases sugar content and production.

MEGAN

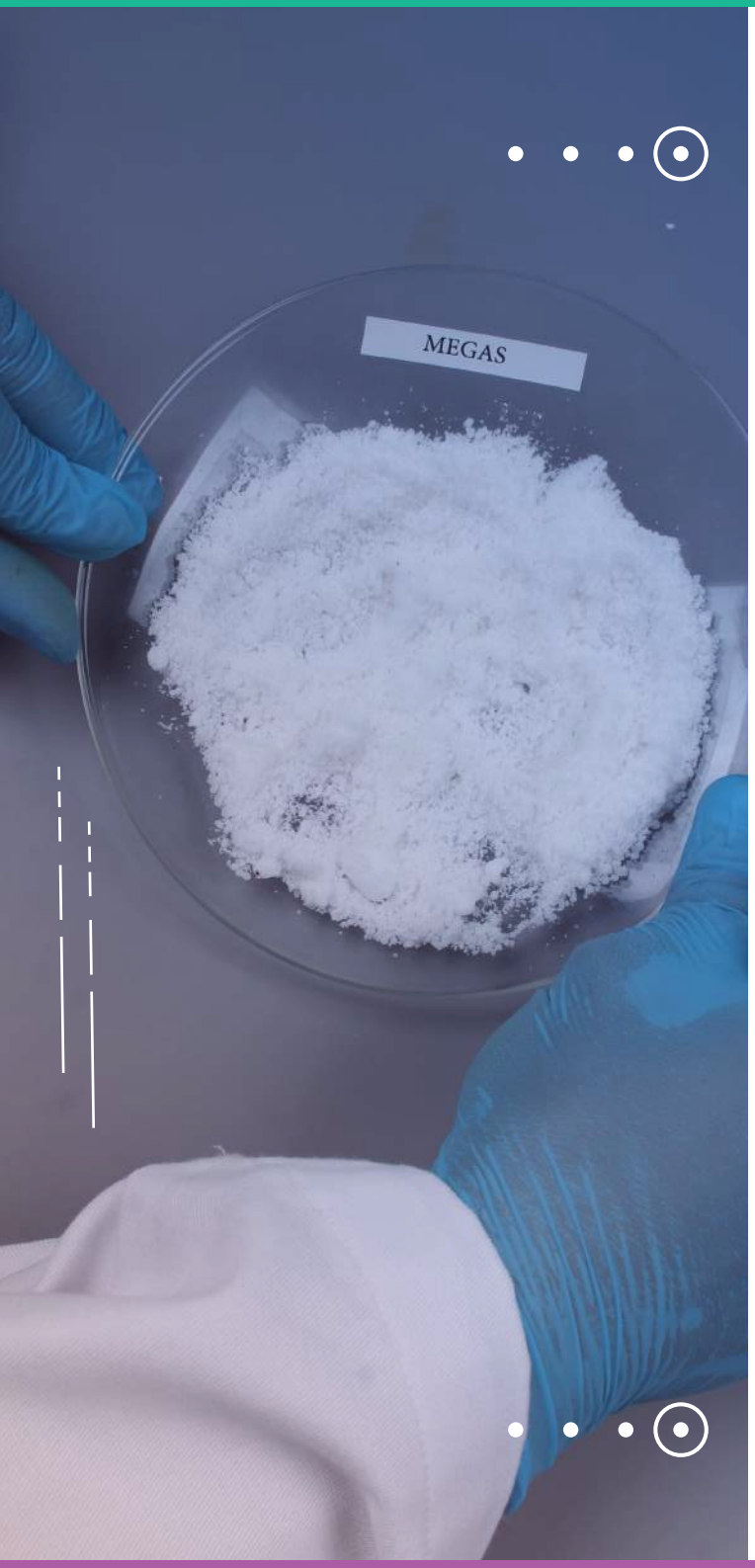
DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
CITRUS	80 – 100 kg/ha	at the beginning of sprouting and before flowering
VINEYARD	80 – 90 kg/ha	at the beginning of sprouting and before
HORTICULTURAL CROPS in open field	60 – 70 kg/ha	from fruit set to 2 – 3 weeks before harvesting
HORTICULTURAL CROPS in greenhouse	70 – 80 kg/ha	from fruit set to 2 – 3 weeks before harvesting
FLOWERS	30 – 50 kg/ha	sowing and before flowering

COMPOSITION

	w/w
Total Nitrogen	**12%**
of which Ammonial Nitrogen	**12%**
Phosphorus Pentoxide (P2O5) water soluble	**61%**

25kg



Characteristics and features

Megas is a powder formulation that readily dissolves in water, making it suitable for foliar and root applications to prevent and treat plant diseases across various crops.

Magnesium (Mg) acts as a catalyst in the formation of chlorophyll and proteins in plants. It also plays a vital role in activating enzymes, facilitating nitrate reduction, and participating in the synthesis of ascorbic acid (Vitamin C), which boosts plant resistance against pests.

Magnesium sulfate is widely regarded as the most effective source of magnesium for agriculture. It can be used in fertigation and as a foliar spray.

Megas is compatible with other fertilizers and plant protection products unless specified otherwise by the suppliers. However, it should not be mixed with surfactants, phosphates, alkaline solutions, or any products that may lead to salt precipitation.

MEGAS

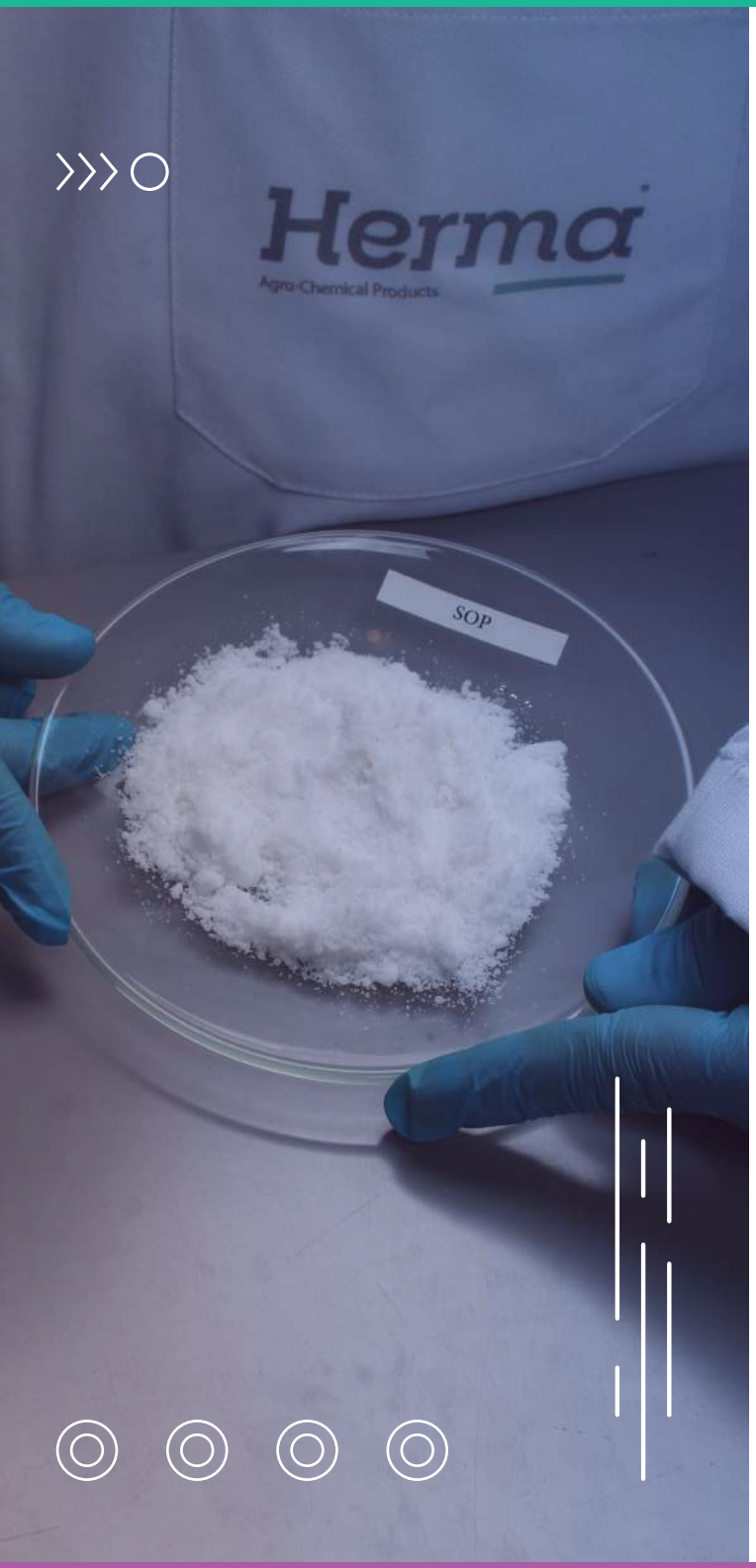
DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
CITRUS	50 – 60 kg/ha	from the sprouting to the maturation
VINEYARD	70 – 80 kg/ha	from the sprouting to the maturation
HORTICULTURAL CROPS in open field	50 – 60 kg/ha	from fruit set to 2 – 3 weeks before harvesting
HORTICULTURAL CROPS in greenhouse	60 – 70 kg/ha	from fruit set to 2 – 3 weeks before harvesting
FLOWERS	80 – 90 kg/ha	during all the vegetative season

COMPOSITION

	w/w
Total Nitrogen	**11%**
of which Nitric Nitrogen	**11%**
MAGNESIUM OXIDE (MgO) water soluble	**15%**

25kg



Characteristics and features

- Excellent source of Potassium
- Most effective fertilization thanks to the interaction between K+ and SO3 ions
- Dry matter and sugar content increase
- Low in Chlorine, possible cause of phytotoxicity and high soil salinity
- Improved fruit colouring.

SOP is a completely soluble fertilizer that is free from any residues. It consists of Potassium and Sulphur, making it highly suitable for fertigation and the formulation of nutrient solutions for soilless crops.

The application of SOP brings about enhancements in both the quantity and quality of crop yields. It elevates the sugar content in plants and promotes the accumulation of reserve substances. Additionally, SOPs acidifying properties contribute to soil improvement, while the significant amount of SO3 facilitates the absorption of nutrients by plant roots. This is particularly beneficial for overcoming nutrient blockages caused by soil colloids.

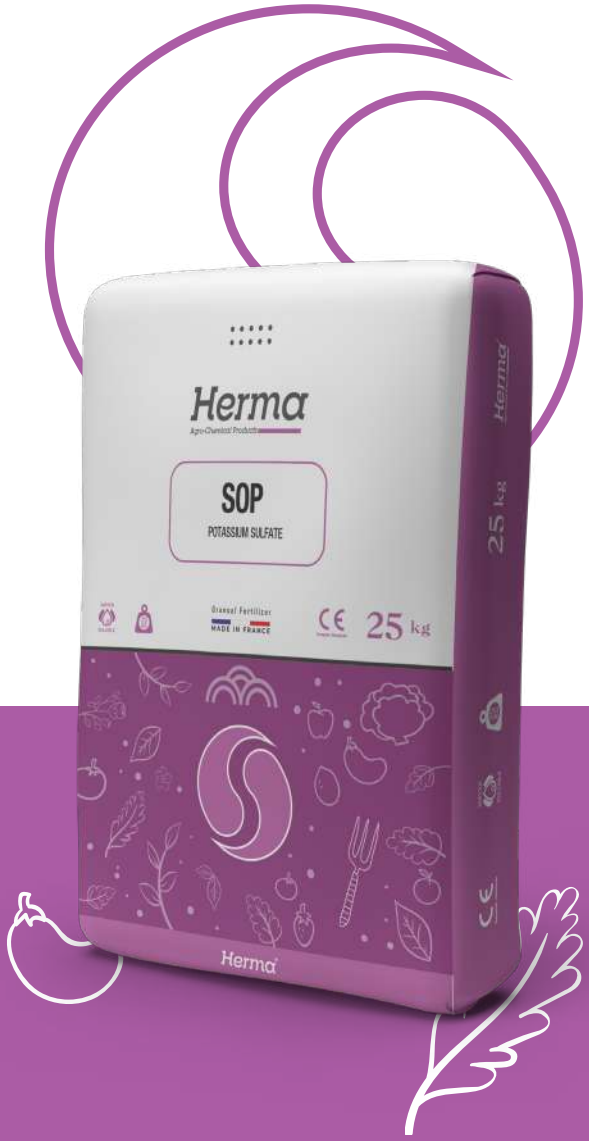
SOP

DOSAGE

PLANTS	DOSAGES	APPLICATION PERIOD
CITRUS & OLIVE TREE	250 – 400 kg/ha	distribute 2 – 3 times a month after fruit set
WINE GRAPES	100 – 140 kg/ha	distribute 1 – 2 times a month after fruit set
TABLE GRAPES	120 – 180 kg/ha	distribute 1 – 2 times a month after fruit set
POME & STONE FRUITS	100 – 140 kg/ha	distribute 2 – 3 times a month after fruit set
KIWI	130 – 160 kg/ha	distribute 2 – 3 times a month after fruit set
HORTICULTURAL CROPS in open field	100 – 200 kg/ha	from fruit set to 2 – 3 weeks before harvesting
HORTICULTURAL CROPS in greenhouse	150 – 250 kg/ha	from fruit set to 2 – 3 weeks before harvesting
FLOWERS	100 – 180 kg/ha	during all the vegetative season

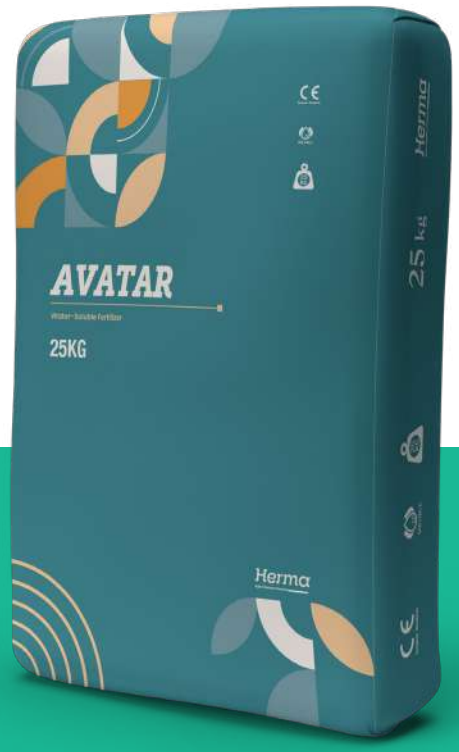
COMPOSITION

	w/w
Potassium oxide (K2O) water soluble	**51%**
Solphur Trioxide (SO3) water soluble	**47%**



25kg

We are pleased to offer a diverse selection of multiple esteemed brands, providing our valued customers with a wide array of choices to suit their preferences and needs.

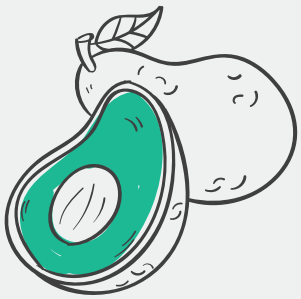


AVATAR

HERMANOS

HERMEC

SEGMOS



Nurturing Nature,
Enriching Growth!

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