

**TO CULTIVATE THE FUTURE
SUSTAINABILITY IS OUR HORIZON.**



**ECOLOGICAL FERTILIZERS
NATURALLY RICH IN HUMIC AND FULVIC ACIDS**



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FROM FERTILIZATION TO THE TABLE

The **sustainable development of the EU Green Deal, that is declined in agriculture as Farm to Fork strategy**, aims to obtain a food system capable of minimizing the use of chemical agents on crops, preserving soil fertility and promoting the health and well-being of the entire community. The Farm to Fork strategy intends to favor the relationships between nature, farmers, industry and consumers so that they can work together for a future compatible with the protection of our planet, **promoting access to sustainable diets, reducing the environmental impact of agriculture and its consequences on climate change.**

With reference to fertilization, evidence shows how complex organo-mineral fertilizers with a high humified carbon rate help farmers **increase sustainability, respecting the Farm to Fork parameters, i.e. the 20% reduction in the use of fertilizers, without compromising crop yields per hectare.** In this way, it is possible to produce food for the constantly growing world population without losing profitability.

This is the goal that UNIMER has always pursued: **producing fertilizers able to fully satisfy the needs of the most advanced agriculture standards**, which are becoming increasingly demanding with regard to technical performance and return on investment and equally **aware of environmental and social responsibility.**

Pursuing this vision, for 8 years the company has been a **technical partner for nutrition** of the COMBI MAIS HYDROTECHNOLOGIES project, a high-profile and innovative research protocol aimed at maximizing the qualitative and quantitative corn yields, promoting intensive and sustainable agriculture thanks to innovative products and technologies.

Research and experimentation with official bodies, primary agro-food industries, distributors, University Institutes of Agricultural Chemistry and specialized laboratories in the agronomic field are recognized by the **international quality certifications issued by DNV**, one of the first certification companies in the world. The label statements of UNIMER's products clearly and transparently highlight their quality benchmarks.

UNIMER's Headquarters is based in **Milan**, the capital of Lombardy, the core of trade relations, partnerships and innovative strategies. All fertilizers are produced in two **modern Italian plants**: the long-standing plant of **Vidor in the province of Treviso** and the brand-new plant of **Arquata del Tronto in the province of Ascoli Piceno**, which was rebuilt after the earthquake had struck Central Italy in 2016 and was inaugurated in July 2020.

SINCE 1969, LEADER IN SUSTAINABLE CROP NUTRITION, FOR A BETTER FUTURE

UNIMER is an Italian company that has been producing and selling solid fertilizers since 1969 and has always been leading the segment of ecological products.

Since the very beginning, UNIMER has devised and brought to market **environmentally friendly fertilizers** which respect the environment and the soil **for sustainable agriculture**. With a pioneering approach, the company foresaw market and EU's responsiveness by decades, **focusing on crop sustainability and soil fertility preservation.**

Always at the forefront and striving for innovation and modernization of both technologies and processes, **UNIMER has invested in digitalization and automation to face today and tomorrow's challenges.** By obtaining the compliance certification with the **Industry 4.0 National Plan**, the company demonstrates to have a gaze always focused on the future, just like its constant commitment to sustainability.



FROM 1969 TO TODAY: THE MOST IMPORTANT

MOMENTS IN UNIMER'S HISTORY

1969

THE YEAR OF GREAT ACHIEVEMENTS

Man lands on the moon, UNIMER pioneers the ecological fertilizer market and inaugurates the Vidor plant



1970

THE VISION OF A SUCCESS

STALLATICO MATURO CONCENTRATO meets the favor of the institutions

No ricevuto e letto con interesse gli stampati relativi allo "stallatico maturo concentrato", che mi ha cortesemente accompagnato con la lettera soprastante e da essi ho tratto nuova conferma dell'indubbio interesse tecnico, nonché economico che tale concime può avere per la nostra agricoltura, giacché non è difficile prevedere che ad esso arrida una notevole affermazione commerciale. Abbia, comunque, i miei auguri in tal senso ed al piacere di rivederla presto, gradisco fruttante i più cordiali saluti.



1982

THE POSITIVE MARKET REACTION

To meet the growing market demand, the Vidor plant is expanded



1989

THE MARKET DEMAND KEEPS INCREASING

The Arquata del Tronto plant joins that of Vidor



2016

THE EARTHQUAKE

The earthquake condemns the Arquata del Tronto plant



2018

UNIMER DOES NOT ABANDON THE TERRITORY

The great reconstruction



2020

AN ITALIAN ACHIEVEMENT: FROM RUBBLE TO RECONSTRUCTION

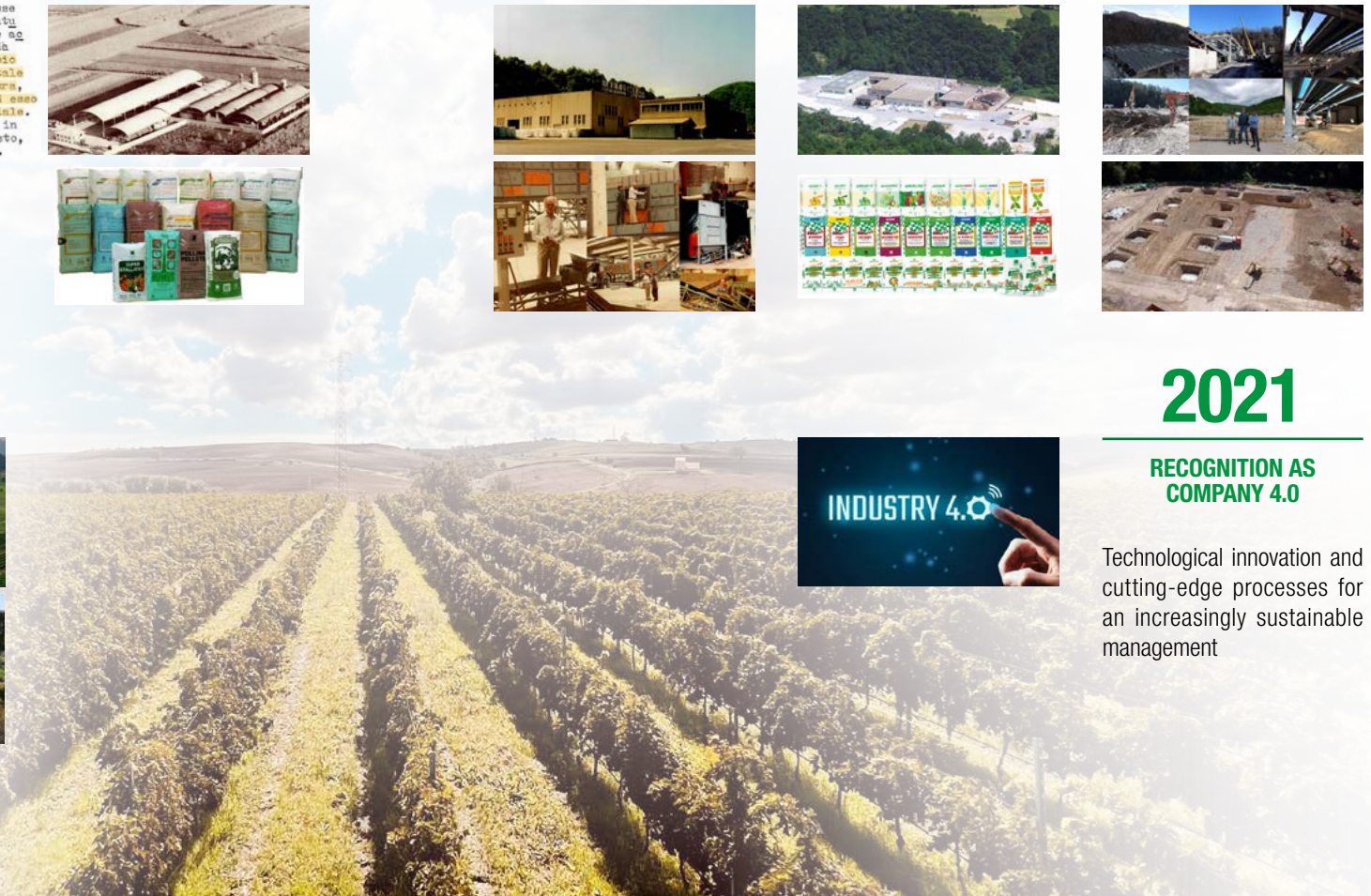
On 20th July: the Arquata del Tronto plant is inaugurated, joining the Vidor plant again



2021

RECOGNITION AS COMPANY 4.0

Technological innovation and cutting-edge processes for an increasingly sustainable management

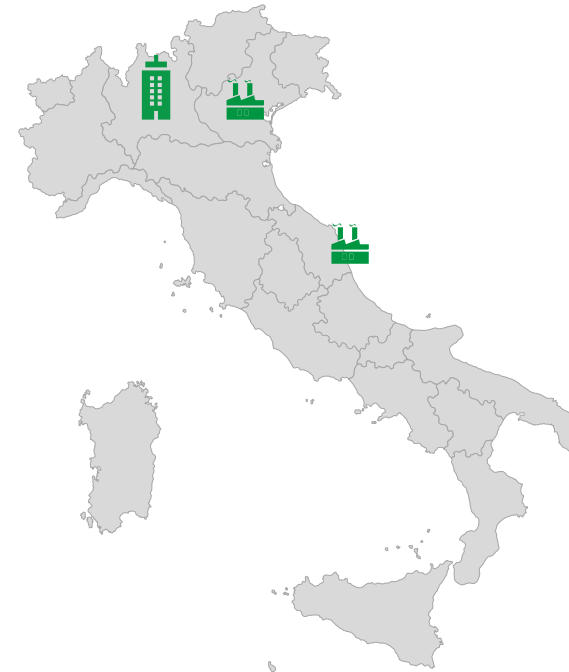


TWO PLANTS FOR THE BEST RESPONSE TO THE MARKET



PLANT IN VIDOR – TREVISO

PLANT IN ARQUATA DEL TRONTO - ASCOLI PICENO



HEADQUARTERS IN MILAN



PLANT IN VIDOR (TV)



PLANT IN ARQUATA DEL TRONTO (AP)



Two modern plants are strategically located along the Italian peninsula, in the provinces of Treviso and Ascoli Piceno, for an industrial area of over **100,000 Sq.Mts** and a productive capacity that exceeds **120,000 tons per year**. The geographical location of the two plants guarantees significant advantages, both in terms of **time to market** and **logistics cost reduction**, whilst **reducing the environmental impact**.

The new plant in Arquata del Tronto (AP) is immersed in the beautiful Monti Sibillini and Gran Sasso and Monti della Laga National Parks and stands out for the **modernity of the plant equipment** and the choice of construction materials that perfectly fit the surrounding environmental context.

Its reopening, alongside the Vidor factory in Veneto, allows UNIMER to step up once again as one of the **largest European production realities in the sector**. On the other hand, Vidor is immersed in the scenery of the Prosecco Hills of Conegliano and Valdobbiadene, which are a World Heritage Site.

UNIMER'S PHILOSOPHY

All-round sustainability is the philosophy that has always guided UNIMER's production. Through a careful selection of both organic and mineral raw materials, together with rigorous production processes, the company guarantees high quality standards, capable of enhancing crop quality and quantity, preserving soil fertility and protecting food genuineness and safety.

UNIMER has always fostered **sustainable agriculture**, by pursuing the following objectives:



soil fertility and environmental resource preservation in the long run through the humified organic substance restoration, which allows the revitalization of soil humification processes;



farmer's profitability thanks to the greater efficiency of the fertilizers' nutrient units, protected by the humified organic substance which reduces the losses; this brings significant advantages as regards to aquifer pollution and greenhouse gas production, thus contributing to climatic change effect reduction;



protection of the health and well-being of community by providing safe and reliable fertilizers, subjected - as required by law - to over one hour heat treatment at 70° C, in order to obtain pathogen removal;

consistent with those of the **Agricultural Policy** and the **Green Deal of the European Community**, that is declined in agriculture as **Farm to Fork** strategy.

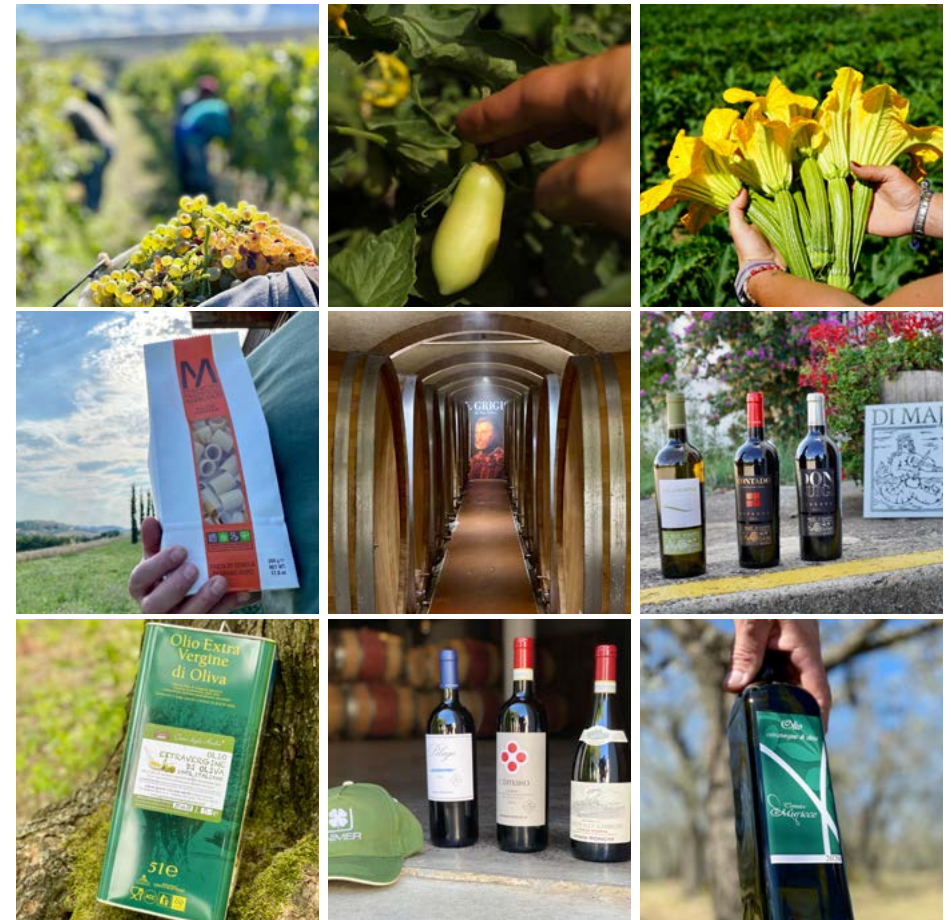
This philosophy is shared by the production and consumption model of **Circular Economy**, which is based on the principle of a virtuous and responsible recycling of residues, agricultural by-products and food waste. UNIMER has always followed those patterns in the production of its environmentally friendly fertilizers.

ALL-ROUND QUALITY

UNIMER has always been involved in **sustainable crop nutrition**, led by a passion for quality as well as for healthy and genuine nutrition, characterized by responsibility, integrity and transparency. UNIMER's competence and reliability are witnessed every day by the trust of those customers who choose our products to fertilize their crops.

Being responsible for nutrition, UNIMER is indeed part of numerous **quality supply chains**, the true flagship of Made In Italy.

We can actually say that the greatest quality certification for our company is made up of our customers' satisfaction and product quality.



THE VALUE OF CERTIFIED SUSTAINABLE QUALITY

UNIMER has in place a control system of the high-quality standards of its production and environmental management, through an excellent certified integrated system, with the aim of keeping the environmental impact of its activities under control and constantly improving in a coherent, effective and above all sustainable way.

The choice of **DNV (Det Norske Veritas)**, one of the first certification companies in the world with 16,000 employees and operations in more than 100 countries, following UNIMER's international expansion, meets the need for a **certification system able to comply with the most stringent international standards.**



UNI EN ISO 9001:2015

Quality system certified by DNV, complying with the most stringent international standards.



UNI EN ISO 22005:2008

The system of traceability in the food chain, certified by DNV.



STP-CE-PC-AGRO 66

Technical document for the fertilizer certification issued by Assofertilizzanti and certified by DNV. It guarantees that the titles and composition of the nutritional elements shown on the label correspond to those that are declared.



ENVIRONMENTAL MANAGEMENT SYSTEM

Certified by DNV, with the aim of keeping the environmental impact of the company's activities under control.



FIBL

Organic certification preparatory to the automatic inclusion in the European Input List. Certification body: FIBL, one of the leading research bodies for organic farming in the world.



ARVAN

The labels are controlled and guaranteed by ARVAN, a leading consulting company in the field of production and use of fertilizers, soil nutrition, crops and soil science.

EFFICIENCY OF UNIMER'S ORGANO-MINERAL FERTILIZERS

UNIMER answered the market growing demand for high quality technical products through structural industrial investments and improvement of the manufacturing processes, especially with regard to the management and stabilization of organic matrices.

The **stabilization of the organic matrices**, carefully selected on the basis of their features of **high quality** and **excellent umigenous properties**, guarantees **reliable long lasting quality standards**, allowing optimal activation of the humic and fulvic substances contained in them. This results in a significant presence of **Humified Organic Carbon** in all UNIMER fertilizers.

According to Annex 12 of Italian Legislative Decree 75/2010, **Humified Organic Carbon** is, among other elements, the one with the highest rating index, given its **extraordinary ability to enhance chemical and biological soil fertility.**

Nitrogen (N)	$\alpha_1=1,0$
Water soluble Phosphorus (P ₂ O ₅) and neutral ammonium citrate	$\alpha_2=1,0$
Phosphorus (P ₂ O ₅) in other forms by law	$\alpha_3=0,3$
Water soluble Potassium (K ₂ O) from chloride	$\alpha_4=0,6$
Water soluble Potassium (K ₂ O) from sulphate/td>	$\alpha_5=1,3$
Water soluble Magnesium (MgO)	$\alpha_6=1,5$
Water insoluble Magnesium (MgO)	$\alpha_7=0,2$
Organic Nitrogen (N org)	$\alpha_8=2,5$
Non-humified organic carbon (C)	$\alpha_9=0,3$
Humified organic Carbon (Humic C)	$\alpha_{10}=2,5$

UNIMER products have a humified organic carbon percentage ranging from 2.5 to 7%, thus increasing significantly their rating index.

SIAPOR RANGE	Winner	C total amount 16%	Humified C total amount 4%
	Victory, Challenge, Driver	C total amount 14%	Humified C total amount 3,5%
	Le Mans	C total amount 12%	Humified C total amount 3%
	Miura, Diabolo	C total amount 10%	Humified C total amount 3%
AVANTAGE RANGE	Spiga d'oro, Granfrutto	C total amount 14%	Humified C total amount 3,5%
	Athena Light, Azteco, Unimax, Easy Fert, Quality Light	C total amount 12%	Humified C total amount 3%
	Athena, Premier, Maxi Fert, Azomaster N24	C total amount 10%	Humified C total amount 3%
	Super Azotek	C total amount 8%	Humified C total amount 2,5%
BIOUNIMER RANGE	GreenPower	C total amount 25%	Humified C total amount 7%
	Armony, Arcadia	C total amount 20%	Humified C total amount 5%
	Bacchus	C total amount 15%	Humified C total amount 3,5%
FLEXIFERT RANGE	9-21	C total amount 15%	Humified C total amount 3,5%
	10-0-20	C total amount 10%	Humified C total amount 2,5%

NUTRIENTS PROTECTION TO

The **reaction process** between humified organic matrices and nutritional elements, based on humic substances' capability of efficiently combining with the mineral components, **results in stable humo-mineral complexes**.

The bonds between the functional groups of humic and fulvic acids and the mineral components guarantee the latter a **high level of protection**, thus stabilizing the fertilizers further over time, thanks to:

- **high and prolonged nutritional availability;**
 - **reduction of losses;**
 - **rationalization of the fertilization technique** thanks to high nutritional efficiency;
 - **greater environmental sustainability** due to the lower use of fertilizing units and the ability to mitigate the effects of climate change, with the contribution of organic matter to the soil, essential to guarantee healthy and productive soils, increase the water capacity of the soil and protect biodiversity.
- The plant thus manages to absorb the necessary elements, separating them from the humic complex that protects them, through the emission of radical exudates: the nutritional ions are released directly from the plant, which becomes the protagonist of the exchanges, favoring the **maximum efficiency of the nutritional units**, for the best possible assimilation.

Main macroelements supplied with fertilizers – uptake percentage by crops – indicative values

FERTILIZER	NITROGEN (N)	PHOSPHORUS (P ₂ O ₅)	POTASSIUM (K ₂ O)
Mineral fertilizer	40 – 60%	10 - 20%	30 - 60%
Organo-mineral fertilizer based on humified peat	60 - 80%	30 - 40%	65 - 75%
Organo-mineral fertilizer based on humified dried poultry manure	50 - 70%	25 - 35%	55 - 65%
Organo-mineral fertilizer based on non-composted poultry manure, leather, meat meal and vinasse	60 - 80 % N org. 40 - 60 % N min.	10 - 20%	30 - 60%

Source: A. Benedetti, S. Canali – Experimental Institute for Plant Nutrition – Rome (Terra e Vita – 1996)

MAXIMIZE PRODUCTION EFFICIENCY

Main macroelements supplied with UNIMER fertilizers – uptake percentage by crops-indicative value.

FERTILIZER	NITROGEN (N)	PHOSPHORUS (P ₂ O ₅)	POTASSIUM (K ₂ O)
Mineral fertilizer	40 – 60%	10 - 20%	30 - 60%
UNIMER organo-mineral fertilizers	50 - 80%	25 - 40%	55 - 75%

Maximizing the production efficiency of agricultural activities is essential to **minimize the carbon footprint**, a parameter used to estimate greenhouse gas emissions caused by all economic activities.

The greenhouse gases produced by agriculture are mainly methane and nitrous oxide. In particular, methane is generated when the organic substance is decomposing in an oxygen-poor environment, while nitrous oxide derives from the transformation of nitrogen in the soil. Furthermore, the nutrients distributed to the crops are often not absorbed by the plants, since they are “lost” due to leaching, volatilization, soil insolubility and evaporation.

The **highly humified organic matrices** used in the production of UNIMER fertilizers react with the mineral nutrients and guarantee a high degree of protection, giving UNIMER fertilizers **high efficiency** and **prolonged nutritional action**. Nutrient protection allows the **administration of fewer NPK units**, with a great advantage for the environment and the **Carbon Footprint**.



THE PRODUCT AND ITS SHAPE

Through industrial processes that have been refined over the years and exclusive industrial patents (UNIGRAN), UNIMER products enjoy excellent chemical, physical and agronomic features: the **granules** of the Avantage range, the **minipellets** of the Siapor range, the innovative production process of **grains** - an exclusive UNIMER - which allows use on site, with precision machinery. The perfect control of humidity, by means of industrial dehydration systems, ensures constant high performance to the finished product, which contains only those substances useful for nutrition and a minimum amount of water.

UNIMER fertilizers can be optimally managed in the distribution and storage phases, as they are free of packing phenomena and unpleasant odors; in the complex process of humification of the organic matrices, the amount of labile fermentable organic substance is reduced, as well as bad smells and, through the dehydration heat treatment, the pathogenic microflora is eliminated.

Minipellets, granules and grains: they are all small sizes, which share unique features in order to respond to the needs of modern mechanized and precision agriculture in the best way.



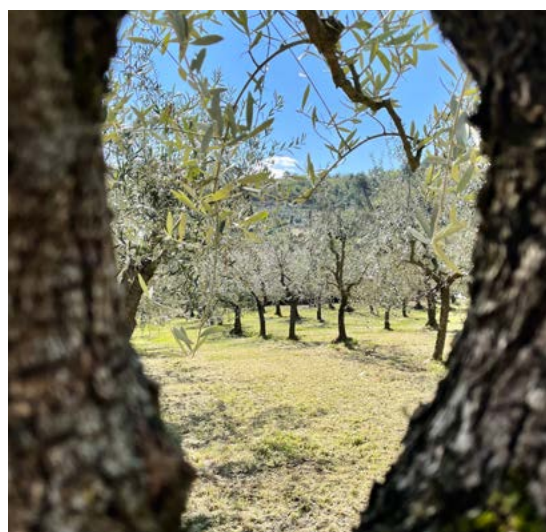
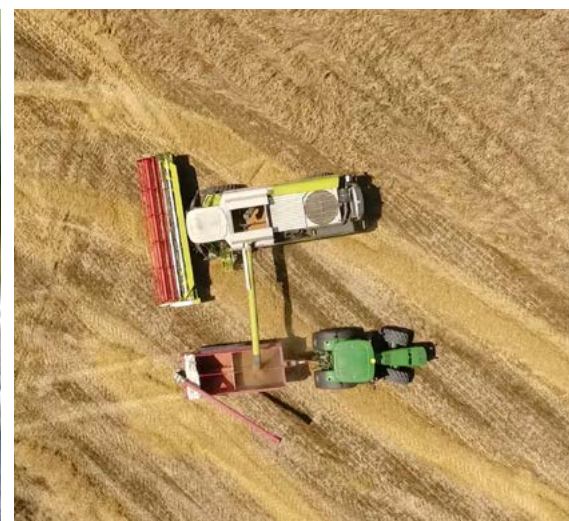
SPEED AND FLEXIBILITY TO GUARANTEE CUSTOMER SATISFACTION

Thanks to high technical and product R&D skills, together with the great flexibility of the two production plants, UNIMER boasts a great ability to respond quickly and efficiently to territory needs when it is necessary to formulate specific products for nutrients, micro-meso elements deficiencies.

Our company offers highly professional agronomic advice for any farmer's need.

Important Italian and foreign companies entrust the production of their ecological fertilizers to UNIMER.







RANGE OF FERTILIZERS ALLOWED IN ORGANIC FARMING

The Biounimer range **has been conceived for organic farming needs with a sustainable nutritional approach**, aimed at satisfying the plant nutritional needs, but also exploiting the soil's renewable resources in a natural way.

Soil revitalization by means of humified crop residues, through the use of both biologically active organic matrices and organic organo-mineral fertilizers, represents a valuable resource to improve fertility while respecting the environment.

A distinctive feature of Biounimer fertilizers is the **quality of the organic component with high humification rate**, as evidenced by the high **percentage of humified carbon** (indicated on the label).

In all their organic and mineral components, Biounimer fertilizers fully comply with the requirements as per Legislative Decree no. 75/2010 annex 13 and are listed in the Register of Fertilizers allowed in organic farming at the Italian Ministry of Agricultural, Food and Forestry Policies.

Highly selected organic raw materials, on the basis of both agronomic and sanitary qualities, along with two modern plants equipped for their processing, in compliance with current legislation, guarantee a safe, modern and effective organic fertilizer range. The industrial dehydration process ensures all the advantages of a product that boasts a significantly reduced and well-controlled final humidity rate and at the same time allows to fully safeguard useful microorganisms' vitality.

Unimer is gradually acquiring **FiBL** certification for Biounimer products, which is preparatory to the automatic inclusion in the **European Input List**.



BIOUNIMER® LINE OF FERTILIZERS PERMITTED FOR ORGANIC FARMING

HIGH HUMIFIED ORGANIC CARBON CONTENT (HUMIC AND FULVIC CARBON)

PRODUCTS	ARMONY S® NPK (Mg-S) 4-8-10 (2-8) BTC	ARCADIA® NP (Ca-Mg) 3-12 (8-2)	BACCHUS S NPK (S) 3-6-14 (13) con Fe BTC
TITRES %			
Humidity			
N total	4	3	3
N organic	4	3	3
P ₂ O ₅ total	8	12	6
P ₂ O ₅ acid sol. min.	8	12	3
Peat			
Salinity			
K ₂ O sol. in water	10		14
CaO total		8	
MgO sol. in water	2	2	
SO ₃ sol. in water	8		13
B total			
Fe total			0,5
Mn total			
Zn total			
C organic	20	20	15
C humified organic	5	5	3,5
Content in mycorrhizae			
Content in rhizosphere bacteria			
Use and doses Kg/ha placed underground	Grapes; maize, sorghum; wheat, rice and other cereals 400-600 Kg/ha Olives 500-700 Kg/ha Vegetables; fruits 500-900 Kg/ha	Wheat, rice and other cereals; maize, sorghum; industrial crops, oilseeds and protein crops; beets and alfalfa 400-600 Kg/ha Fruits; vegetables; flowers, ornamental plants and recreational/lawn grasses; tobacco; strawberries 500-700 Kg/ha	Grapes and olives 400-800 Kg/ha Fruits and vegetables; flowers, ornamental plants and recreational/lawn grasses; tobacco 500-900 Kg/ha Maize, sorghum; wheat, rice and other cereals; industrial crops, oilseeds and protein crops 400-600 Kg/ha
Mineral fertilizers and trace	Soft ground rock phosphate, potassium sulphate	Soft ground rock phosphate	Soft ground rock phosphate, potassium sulphate
Organic fertilizers	Dried manure*, meat meal	Dried manure*, meat meal	Dried poultry manure*, meat meal, bone meal
Organic matrices	Green composted soil improver	/	/

ECOFERTIL® NP (Ca-Mg) (10-2)	JOLLY® NP (S 6) with ferro (Fe)	ENDURANCE N8® with Fe with Zn
4	3	8
4	3	8
3	3	
3		
10		
2		
	6	
	2	0,5
		0,01
22	22	30
7	8	6 (*)
Industrial crops, oilseeds and protein crops 500-1000 Kg/ha Viticulture and olive trees 600-1200 Kg/ha Horticultural 800-1200 Kg/ha Fruit trees; asparagus and artichoke; strawberry; 800-1500 Kg/ha Beetroot and alfalfa 1000-1500 Kg/ha Wheat, rice and other cereals; flower and ornamental crops and recreational lawns; tobacco 1000-2000 Kg/ha Corn and sorghum 1000-3000 Kg/ha	Industrial crops, oilseeds and protein crops 500-1000 Kg/ha Viticulture and olive trees 600-1200 Kg/ha Horticultural 800-1200 Kg/ha Fruit trees; asparagus and artichoke; strawberry; 800-1500 Kg/ha Beetroot and alfalfa 1000-1500 Kg/ha Wheat, rice and other cereals; flower and ornamental crops and recreational lawns; tobacco 1000-2000 Kg/ha Corn and sorghum 1000-3000 Kg/ha	Industrial crops, oilseeds and protein crops 400-600 Kg/ha Wheat, rice and other cereals 400-800 Kg/ha Grapes and olives; beets 500-800 Kg/ha Flowers, ornamental plants and recreational/lawn grasses 500-1000 Kg/ha Vegetables; fruits; maize and sorghum; strawberries 600-1000 Kg/ha
Calcium sulphate, magnesium sulphate	Iron salt (sulphate),	Iron salt (sulphate), zinc salt (sulphate).
Dried vinasse from molasses, dried poultry manure*, meat meal	Dried manure*, dried poultry manure*, bone meal, meat meal	*Meat meal, dried horse, cow and poultry manure; feather meal
/	/	/

Not from industrial breeding. () Values that, by law, cannot be declared on the label. Products destined for foreign markets may be subject to different declarations depending on the legislation in force in the countries where they will be used. - Indicative doses. - Unimer reserves the right to change products without prior notice.

BIOUNIMER® LINE OF FERTILIZERS PERMITTED FOR ORGANIC FARMING

HIGH HUMIFIED ORGANIC CARBON CONTENT (HUMIC AND FULVIC CARBON)


PRODUCTS	POLLINAMATURA®	SUPERSTALLATICO®	MICROLIFE® WITH ADDED MICROBIAL CONSORTIUM
TITRES %			
Humidity		14	14
N total	2,5	1	1
N organic	2,5		
P ₂ O ₅ total	2,5		
P ₂ O ₅ acid sol. min.			
Peat			
Salinity			
K ₂ O sol. in water			
CaO total			
MgO sol. in water			
SO ₃ sol. in water			
B total			
Fe total			
Mn total			
Zn total			
C organic	35-40	26	26
C humified organic	12-14 (*)	12 (*)	12 (*)
Content in mycorrhizae			
Content in rhizosphere bacteria			
Use and doses Kg/ha placed underground	Industrial crops, oilseeds and protein crops 800-1500 Kg/ha Fruits; beets, alfalfa 1000-1500 Kg/ha Grapes, olives; wheat, rice and other cereals 1000-2000 Kg/ha Vegetables; strawberries; flowers, ornamental plants and recreational/lawn grasses; tobacco 1500-2000 Kg/ha Maize, sorghum 1000-3000 Kg/ha	Maize, sorghum; wheat, rice and other cereals; industrial crops, oilseeds and protein crops; beets, alfalfa; 1000-1500 Kg/ha Vegetables; fruits; strawberries; grapes and olives; flowers, ornamental plants and recreational/lawn grasses; tobacco 1500-2500 Kg/ha	Maize, sorghum; wheat, rice and other cereals; industrial crops, oilseeds and protein crops; beets, alfalfa 800-1300 Kg/ha Vegetables; fruits; strawberries; grapes and olives 1300-2500 Kg/ha Tobacco 1000-1500 Kg/ha Flowers, ornamental plants and recreational/lawn grasses 1500-2500 Kg/ha
Mineral fertilizers and trace			
Organic fertilizers	*Dried poultry manure	*Dried cow and horse manure	
Organic matrices	/	/	/


MICRO FORCE	GREEN POWER® PEAT-BASED SOIL IMPROVER COMPOUND	MICROSOL KOMPOST® ORGANIC FERTILIZER NP (Mg-S) (7-15) with B, Fe, Mn and Zn	MICROSOL FERROMAX® ORGANIC FERTILIZER NP DRIED POULTRY MANURE (S) (7,5) with B, Fe and Zn
14 (*)			
1 (*)			
	1,2	3	2
		3	3
	50		
	65 dS/m		
		7	
		15	7,5
		0,9	0,01
		2	10
		3,2	
		0,08	0,01
	26 (*)	25	14
	12 (*)	7	3,5 (*)
0,0002% (Glomus Intraradices)			
1x10 ⁶ UFC/g (Azotobacter Salinestris and Vinelandii, Bacillus Megaterium, Frauteria Aurantia)			
Application across the board Wheat, rice and other cereals 500-1000kg/ha Viticulture and olive trees, maize, sorghum, industrial crops, oilseeds and protein crops, beets, alfalfa 800-1200 kg/ha Horticultural, fruit trees, strawberries, tobacco, flowers and ornamental plants and recreational/lawns grasses 1000-1500 kg/ha	Wheat, rice and other cereals; industrial crops, oilseeds and protein crops 800-1000 Kg/ha Maize, sorghum 1000-1500 Kg/ha Vegetables and fruits; strawberries; grapes and olives; tobacco 1500-2500 Kg/ha	Fruits; tobacco 150-200 Kg/ha Grapes and olives; vegetables; strawberries; flowers, ornamental plants and recreational/lawn grasses; beets, alfalfa 150-250 Kg/ha Wheat, rice and other cereals 100-150 Kg/ha Maize, sorghum; industrial crops, oilseeds and protein crops 100-200 Kg/ha	Vegetables; strawberries; flowers, ornamental plants and recreational/lawn grasses; tobacco 600-1000 Kg/ha Fruits 500-800 Kg/ha Grapes and olives 500-1000 Kg/ha Maize and sorghum; wheat, rice and other cereals; industrial crops, oilseeds and protein crops 600-800 Kg/ha
		Kieserite of natural origin only, sodium borate, iron salt (sulphate and carbonate), manganese salt (sulphate), zinc salt (sulphate)	Sodium borate, iron salt (sulphate and carbonate), zinc salt (sulphate)
Dried cow and horse manure		Dried poultry manure, meat and bone meal	Dried poultry manure*
/	Green composted soil improver, humified peat	/	/


Not from industrial breeding. () Values that, by law, cannot be declared on the label. Products destined for foreign markets may be subject to different declarations depending on the legislation in force in the countries where they will be used. - Indicative doses. - Unimer reserves the right to change products without prior notice.


SIAPOR®


ORGANO-MINERAL FERTILIZER RANGE


 Organo-mineral fertilizers obtained by reaction between highly humified organic matrices and carefully selected mineral components. They ensure **high protection to nutritional elements** thanks to the bonds between the functional groups of humic and fulvic acids and the mineral components.

 They are naturally rich in humic and fulvic acids, as certified by the **high content of humified organic carbon** declared on the label.

 The high presence of organic matter with a high humification rate **guarantees the best efficiency of NPK mineral units, meso and microelements**, both in terms of element yield and prolonged availability for the plant over time.

 This allows for **dosing rationalization** and greater environmental sustainability thanks to the lower use of fertilizing units.

 The humified organic matter stimulates the soil microbiome which helps improve the absorption of mineral nutrients contained in the formulations.

 **SIAPOR**, UNIMER's first range of organo-mineral fertilizers, has always been appreciated by sector operators for its **reliability** and **performance**: it represents the most reliable image of a tradition projected into the future.



SIAPOR® LINE OF ORGANO-MINERAL FERTILIZERS

HIGH HUMIFIED ORGANIC CARBON CONTENT (HUMIC AND FULVIC CARBON)




PRODUCTS	WINNER NP (Mg) 11 - 25 (2)	VICTORY NPK 4-8-16	VICTORY S NPK (Mg-S) 4-8-16 (2-14) with B and Fe LCC	CHALLENGE NPK (Mg) 5- 12-12 (2) with Zn	CHALLENGE S NPK (Mg-S) 5-12-12 (2-10) with Zn LCC	LE MANS S NPK (Mg-S) 8-5-12 (2-20) with B and Fe LCC	DRIVER S NPK (Mg-S) 7-7-7 (2-10) LCC	MIURA S NPK (Mg-S) 12-6-8 (2-26) with B and Fe LCC	DIABLO S NPK (Ca-S) 9-12-18 (8-15) with B, Fe, Zn LCC
TITRES %									
N total	11	4	4	5	5	8	7	12	9
N organic	1.5	1.5	1.5	1.2	1.2	1.2	1.5	1	1
N ammoniacal	9.5	2.5	2.5	3.8	3.8	6.8	5.5	9	5
N ureic								2	3
P ₂ O ₅ total	25	8	8	12	12	5	7	6	12
P ₂ O ₅ sol. of amm. citr. and water	20	5	6	10	8	4	5	4.5	10
P ₂ O ₅ sol. in water	16	3.5	3.5	5	5	2.5	3.5	3.5	6
K ₂ O sol. in water		16	16	12	12	12	7	8	18
CaO total									8
MgO total	2		2	2	2	2	2	2	
MgO sol. in water									
SO ₃ sol. in water			14		10	20	10	26	15
B total			0.03			0.03		0.03	0.03
Fe total			0.5			0.5		0.5	0.5
Zn total				0.01	0.01				0.01
C organic	16	14	14	15	14	12	14	10	10
C humic and fulvic	4	3.5	3.5	3.5	3.5	3	3.5	3	3
Use and doses Kg/ha placed underground	Wheat, rice and other cereals; industrial crops, oilseeds and protein crops 200-400 Kg/ha Maize, sorghum 200-500 Kg/ha Beets, alfalfa 300-600 Kg/ha Vegetables; melons, watermelons and other cucurbitaceae; strawberries; flowers, ornamental plants and recreational/lawn grasses 400-600 Kg/ha Fruits; grapes and olives 400-800 Kg/ha	Industrial crops, oilseeds and protein crops; maize and sorghum 300-500 Kg/ha Beets, alfalfa, grapes and olives 400-800 Kg/ha Fruits; strawberries 600-800 Kg/ha Wheat, rice and other cereals 500-700 Kg/ha Vegetables; melons, watermelons and other cucurbitaceae 700-1000 Kg/ha	Grapes and olives 400-800 Kg/ha Fruits; strawberries, tobacco 600-800 Kg/ha Vegetables, melons, watermelons and other cucurbitaceae 700-1000 Kg/ha Industrial crops, oilseeds and protein crops; maize, sorghum 300-500 Kg/ha Wheat, rice and other cereals 500-700 Kg/ha Flowers, ornamental plants and recreational/lawn grasses 800-1000 Kg/ha	Wheat, rice and other cereals 400-600 Kg/ha Maize, sorghum 500-600 Kg/ha Industrial crops, oilseeds and protein crops; grapes and olives 400-700 Kg/ha Fruits; vegetables 600-800 Kg/ha	Vegetables, fruits, strawberries; tobacco 600-800 Kg/ha Melons, watermelons and other cucurbitaceae 600-1000 Kg/ha Grapes and olives 500-700 Kg/ha Wheat, rice and other cereals 400-600 Kg/ha Industrial crops, oilseeds and protein crops 400-700 Kg/ha Flowers, ornamental plants and recreational/lawn grasses 500-800 Kg/ha	Fruits 500-800 Kg/ha Grapes and olives 400-800 Kg/ha Vegetables, melons, watermelons and other cucurbitaceae 600-800 Kg/ha Maize, sorghum; wheat, rice and other cereals; industrial crops, oilseeds and protein crops 300-600 Kg/ha	Vegetables, fruits, strawberries; tobacco 700-900 Kg/ha Grapes and olives; beets, alfalfa 600-800 Kg/ha Industrial crops, oilseeds and protein crops 400-700 Kg/ha Maize, sorghum 400-500 Kg/ha Wheat, rice and other cereals 300-500 Kg/ha	Grapes and olives 400-800 Kg/ha Fruits, tobacco 500-800 Kg/ha Vegetables, melons, watermelons and other cucurbitaceae; flowers, ornamental plants and recreational/lawn grasses 600-900 Kg/ha Maize, sorghum 400-800 Kg/ha Wheat, rice and other cereals 300-700 Kg/ha	Short-season vegetables 300-500 Kg/ha Long-season vegetables 500-1000 Kg/ha Fruits 500-800 Kg/ha Strawberries 600-800 Kg/ha Grapes and olives 400-800 Kg/ha Tobacco 500-700 Kg/ha Maize, sorghum 300-400 Kg/ha Wheat, rice and other cereals 200-400 Kg/ha
Raw materials:									
Mineral fertilizers	NP 18-46 (diammonium phosphate), phosphate chips	NP 18-46 (diammonium phosphate), soft ground rock phosphate, mixed potassium salts	NP 18-46 (diammonium phosphate), potassium sulphate, phosphate chips, potassium chips	NP 18-46 (diammonium phosphate), triple superphosphate, potassium chloride, phosphate chips, potassium chips	NP 18-46 (diammonium phosphate), triple superphosphate, potassium sulphate, potassium chips	Ammonium sulphate, NP 18-46 (diammonium phosphate), potassium sulphate, phosphate chips, potassium chips	Ammonium sulphate, NP 18-46 (diammonium phosphate), potassium sulphate	Ammonium sulphate, urea, NP 18-46 (diammonium phosphate), potassium sulphate	Ammonium sulphate, urea, NP 18-46 (diammonium phosphate), potassium sulphate, potassium chips, potassium chips
Organic fertilizers	Dried manure, dried poultry manure								
Organic matrices	Humified peat, green composted soil improver, simple uncomposted plant soil improver								


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AVANTAGE®


ORGANO – MINERAL FERTILIZER RANGE


 Organo-mineral fertilizers obtained by reaction between highly humified organic matrices and carefully selected mineral components; through UNIMER'S production process the nutritional element **protection is ensured thanks to the bonds between the functional groups of humic and fulvic acids and the mineral components.**


 They are naturally rich in humic and fulvic acids, as certified by the **high humified organic carbon content** declared on the label.

 The protection ensured by the humified organic substance allows to **optimize the mineral nutrients** that are available for the plants over time, minimizing losses and **saving fertilizing units.**

In particular, **nitrogen of mineral origin**, by reacting with the phenolic groups of humic substances, acquires a differentiated release with an **increase in crop efficiency.**

 The humic protection and the mechanism of action that regulates the nutrient release follows the crop absorption rates, adapting to their physiology; therefore, **the fertilizing units become more efficient on spot, which allows to rationalize the fertilization technique and ensure greater environmental sustainability** thanks to the lower use of fertilizing units.

 In addition to ensuring a consistent supply of humic and fulvic acids, the **organic matrix** of AVANTAGE products provides an important **development base for the soil microbiome**, positively influencing its **biological fertility.**

 With the reopening of the plant in Arquata del Tronto, the products of the Avantage range are again available in granules.



AVANTAGE® LINE OF ORGANO-MINERAL FERTILIZERS

HIGH HUMIFIED ORGANIC CARBON CONTENT (HUMIC AND FULVIC CARBON)

PRODUCTS TITRES %	ATHENA OLIVETO	ATHENA OLIVETO LIGHT
	NPK (Ca) 14-6-9 (8) with B and Zn	NPK 14-5-5
N total	14	14
N organic	1,5	2
N ammoniacal		
N ureic	9	12
N ureic with NBPT	3,5	
P ₂ O ₅ total	6	5
P ₂ O ₅ sol. of amm. citr. and water		
P ₂ O ₅ sol. in water		
K ₂ O sol. in water	9	5
CaO total	8	
MgO total		
MgO sol. in water		
SO ₃ total		
SO ₃ sol. in water		
B total	0,05	
Fe total		
Zn total	0,01	
C organic	10	12
C humic and fulvic	3	3
Use and doses Kg/ha placed underground	Olives and grapes 400-700 Kg/ha Fruits; vegetables; flowers, ornamental plants and recreational/lawn grasses 500-700 Kg/ha Wheat, rice and other cereals; industrial crops, oilseeds and protein crops; beets, alfalfa 300-400 Kg/ha Strawberries; maize, sorghum 400-600 Kg/ha	Olives and grapes 400-700 Kg/ha Fruits; vegetables; flowers, ornamental plants and recreational/lawn grasses 500-700 Kg/ha Wheat, rice and other cereals; industrial crops, oilseeds and protein crops; beets, alfalfa 300-400 Kg/ha Strawberries; maize, sorghum 400-600 Kg/ha
Raw materials:		
Mineral fertilizers	Urea, urea with urease inhibitor (N-(n-butyl) thiophosphoric triamide (NBPT)), phosphate chips, potassium chloride, potassium sulphate	Urea, soft ground rock phosphate, potassium chloride
Organic fertilizers	Dried poultry manure, dried manure	Dried poultry manure, dried manure
Organic matrices	Humified peat, simple uncomposted plant soil improver	Green composted soil improver

AZTECO	GRANFRUTTO	PREMIER
NPK (Ca) 10-5-15 (14)	NPK (Ca-S) 10-5-6 (8-15) BTC	NPK (S) 7-12-18 (8) con Fe
10	10	7
2	2	1,5
	8	3
8		2,5
5	5	12
		9
		5
15	6	18
14	8	
	15	8
		0,5
12	14	10
3	3,5	3
Wheat, rice and other cereals; industrial crops, oilseeds and protein crops; beets, alfalfa 300-400 Kg/ha Maize, sorghum 400-600 Kg/ha Grapes and olives 400-700 Kg/ha Fruits; flowers, ornamental plants and recreational/lawn grasses 500-800 Kg/ha Vegetables; strawberries 600-800 Kg/ha	Fruits; grapes and olives 500-900 Kg/ha Industrial crops, oilseeds and protein crops 300-600 Kg/ha Wheat, rice and other cereals; 400-600 Kg/ha Strawberries; maize, sorghum; beets, alfalfa 600-800 Kg/ha Vegetables; flowers, ornamental plants and recreational/lawn grasses 700-900 Kg/ha	Wheat, rice and other cereals; industrial crops, oilseeds and protein crops 300-500 Kg/ha Maize, sorghum; grapes and olives; fruits; beets, alfalfa 400-600 Kg/ha Vegetables; strawberries; flowers, ornamental plants and recreational/lawn grasses 600-1000 Kg/ha
Urea, soft ground rock phosphate, potassium chloride	Urea, phosphate chips, potassium sulphate	Urea, fertilizer NP 18-46 (diammonium phosphate), potassium chips, mixed potassium salts
Dried poultry manure, dried manure	Dried poultry manure	Dried poultry manure, dried manure
\	Humified peat, simple uncomposted plant soil improver	Humified peat, green composted soil improver

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AVANTAGE® LINE OF ORGANO-MINERAL FERTILIZERS

HIGH HUMIFIED ORGANIC CARBON CONTENT (HUMIC AND FULVIC CARBON)

PRODUCTS	SPIGA D'ORO NP (Ca) 8-18 (8)	UNIMAX NPK (S) 9-6-12 (22) BTC	AZOMASTER N 24 (Mg-S) (2-7)
TITRES %			
N total	8	9	24
N organic	3	2	1,5
N ammoniacal	5	4,5	
N ureic		2,5	22,5
N ureic with NBPT			
P ₂ O ₅ total	18	6	
P ₂ O ₅ sol. of amm. citr. and water	14	4	
P ₂ O ₅ sol. in water	8	2	
K ₂ O sol. in water		12	
CaO total	8		
MgO total			2
MgO sol. in water			
SO ₃ total			7
SO ₃ sol. in water		22	
B total		0,02	
Fe total		0,5	
Zn total			
C organic	14	12	10
C humic and fulvic	3,5	3	3,0
Use and does Kg/ha placed underground	Olives and grapes 400-700 Kg/ha Fruits; vegetables; flowers, ornamental plants and recreational/lawn grasses 500-700 Kg/ha Wheat, rice and other cereals; industrial crops, oilseeds and protein crops; beets, alfalfa 300-400 Kg/ha Strawberries; maize, sorghum 400-600 Kg/ha	Fruits 600-900 Kg/ha Vegetables; strawberries 700-1000 Kg/ha Grapes and olives 400-700 Kg/ha Wheat, rice and other cereals; industrial crops, oilseeds and protein crops 300-500 Kg/ha Maize, sorghum; 400-600 Kg/ha Tobacco; beets, alfalfa 600-800 Kg/ha	Wheat, rice and other cereals 300-550kg/ha Maize, sorghum 500-650 kg/ha Grapes 150-250 kg/ha Industrial crops, oilseeds and protein crops 150-400 kg/ha Vegetables, olives, flowers, ornamental plants and recreational/lawns grasses, beets, frage, tobacco 300-400 kg/ha Fruits 400-600 kg/ha
Mineral fertilizers	Urea, urea with urease inhibitor (N-(n-butyl) thiophosphoric triamide (NBPT)), phosphate chips, potassium chloride, potassium sulphate	Urea, solfato ammonico, concime NP 18-46 (fosfato biammonico), sfridi fosfatici, solfato di potassio	Urea
Organic fertilizers	Dried poultry manure, dried manure	Dried poultry manure	Dried manure
Organic matrices	Humified peat, green composted soil improver	Humified peat, green composted soil improver	Green composted improver

SUPER AZOTEK N32 (S7)	MAXI FERTIL NP (S) 20-10 (10)	EASY FERT NP 6-12	QUALITY LIGHT NPK (Mg-S) 3-12-15 (2-10) BTC
32	20	6	3
1	1	2	2
	7	1,5	1
28,5	8,5	2,5	
2,5	3,5		
	10	12	12
	7	4	8
	4	1	5
			15
			2
7	10		10
8	10	12	12
2,5	3	3	3
Wheat, rice and other cereals 200-400 Kg/ha Maize, sorghum 200-500 Kg/ha Grapes 100-200 Kg/ha Industrial crops, oilseeds and protein crops 100-300 Kg/ha Vegetables; olives; flowers, ornamental plants and recreational/lawn grasses; beets, alfalfa 300-400 Kg/ha Fruits 300-600 Kg/ha Grapes and olives; vegetables; tobacco; strawberries 400-600 Kg/ha	Wheat and other cereals 500-600 Kg/ha Rice 200-300 Kg/ha Maize, sorghum 700-800 Kg/ha Industrial crops, oilseeds and protein crops; Flowers, ornamental plants and recreational/lawn grasses; beets, alfalfa 300-400 Kg/ha Fruits 300-600 Kg/ha Grapes and olives; vegetables; tobacco; strawberries 400-600 Kg/ha	Wheat, rice and other cereals 300-500 Kg/ha Maize, sorghum; industrial crops, oilseeds and protein crops; grapes and olives; tobacco 400-600 Kg/ha Beets, alfalfa; fruits 500-700 Kg/ha Strawberries 300-600 Kg/ha Vegetables 400-500 Kg/ha	Tobacco; strawberries; fruits; flowers, ornamental plants and recreational/lawn grasses 600-1000 Kg/ha Vegetables 600-1200 Kg/ha Grapes and olives; wheat, rice and other cereals; industrial crops, oilseeds and protein crops 300-500 Kg/ha Alfalfa 400-600 Kg/ha Maize, sorghum 700-800 Kg/ha Beets 700-900 Kg/ha
Urea, urea with urease inhibitor (N-(n-butyl) thiophosphoric triamide (NBPT))	Urea, ammonium sulphate, urea with urease inhibitor (N-(n-butyl) thiophosphoric triamide (NBPT)), fertilizer NP 18-46 (diammonium phosphate), phosphate chips	Urea, fertilizer NP 18-46 (diammonium phosphate), soft ground rock phosphate	Fertilizer NP 12-52, potassium sulphate, magnesium sulphate for agricultural use
Dried manure	Dried poultry manure	Dried poultry manure	Dried manure
Humified peat, simple uncomposted plant soil improver	Humified peat, simple uncomposted plant soil improver	Green composted soil improver	Humified peat, green composted soil improver

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FLEXIFERT®

INNOVATIVE SYNERGY TO GROW EXCELLENCE

FLEXIFERT is an innovative range of organo-mineral fertilizers where nutrients are linked to **ion exchange resins** and are protected by **humified organic matter**.

Thanks to their total ion exchange capacity, **these resins increase the availability of nutrients for crops**, guaranteeing their prolonged availability over time, preserving them from losses due to soil insolubility, leaching and volatilization. In this way, they **positively influence the nutritional balance of crops**.

The synergistic action of **Flexifert** nutrients guarantees **excellent nutritional flexibility** to crops with positive effects on the **rationalization of fertilization techniques**, even far off the usual period of nutritional use.

FLEXIFERT fertilizers improve soil fertility in the following ways:

- by acting on the **exchange capacity**, they increase nutrient availability,
- by intervening on the absorbing power of the soil, they **increase the ability to retain water and the nutrients** dissolved in it,
- **by influencing the buffering capacity of the soil**, that is the property of the soil to oppose changes in pH.



FLEXIFERT® LINE OF ORGANO-MINERAL FERTILIZERS

**HIGH HUMIFIED ORGANIC CARBON CONTENT
WITH NUTRIENT EXCHANGE RESINS**

PRODUCTS TITRES %	FLEXIFERT	FLEXIFERT
	NK (Ca) 10-20 with Mn and Zn	NP (Mg) 9-21 with Mn and Zn
N total	10	9
N organic	1.5	1.5
N ammoniacal		7.5
N ureic	8.5	
N ureic with NBPT		
P ₂ O ₅ total		21
P ₂ O ₅ sol. of amm. citr. and water		15
P ₂ O ₅ sol. in water		8
K ₂ O sol. in water	20	
CaO total	12	
Mn total	0.1	0.1
Zn total	0.01	0.01
C organic	10	15
C humic and fulvic	2.5	3.5
Use and doses Kg/ha placed underground	Industrial crops, oilseeds and protein crops; maize and sorghum; wheat, rice and other cereals 400-600 Kg/ha Grapes and olives 400-800 Kg/ha Fruits; flowers, ornamental plants and recreational/lawn grasses 500-800 Kg/ha Vegetables; strawberries 600-800 Kg/ha	Wheat, rice and other cereals 250-400 Kg/ha Maize, sorghum, beets 250-450 Kg/ha Industrial crops, oilseeds and protein crops, alfalfa 250-350 Kg/ha Vegetables; tobacco; strawberries 300-400 Kg/ha Flowers, ornamental plants and recreational/lawn grasses 300-500 Kg/ha Fruits 500-800 Kg/ha Grapes and olives 300-500 Kg/ha
Raw materials:		
Mineral fertilizers	Urea, potassium chloride	Ammonium sulphate, fertilizer NP 18-46, phosphate chips
Organic fertilizers	Dried manure	Dried poultry manure, dried manure

Products destined for foreign markets may be subject to different declarations depending on the legislation in force in the countries where they will be used. Unimer reserves the right to change products without prior notice.





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