



ORGANIC FERTILIZER OF A NEW GENERATION

ECONOMIC EFFECT | HARVEST GROWTH | RESTORING

NOVAPEAT®



HUMAX



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CHALLENGES & OPPORTUNITIES

PROBLEMS OF MODERN AGRICULTURAL
PRODUCERS

Current problems of the agricultural sector

- The modern world agricultural sector faces many problems associated with intensive farming methods, which lead to a severe depletion of soil fertility.
- Recently, agricultural producers are increasingly faced with a decrease in soil productivity, the concentration of harmful substances in it, coming with fertilizers, plant protection products, and other chemicals.
- Intensive farming methods lead to severe depletion of the humus layer of the soil.
- Due to the constant growth of the population of the Earth and the sharp urbanization, fertile soils suitable for agriculture are becoming less and less.

We only have 48 years left to get a harvest from the soil on our Planet



The destructive use of mineral fertilizers, chemicals, and pesticides in intensive farming can destroy our Planet in the shortest possible time:

- Today, the composition of land used in the agricultural sector is 85% less mineral and nutrient substances than it was 100 years ago.
- Fertile soil should contain at least 28% organic matter. Today, most soils containing less than 2% organic matter.

All of these factors dramatically reduce the volume and quality of agricultural products.

For example: to get the same amount of vitamin C, today a person needs to eat eight oranges, while our ancestors only needed one

100 years ago:



Today:





OUR OFFER

WE OFFER THE BEST SOLUTION FOR ECONOMIC, GROWTH HARVEST AND RESTORING THE SOIL

Pros and cons of existing fertilizers on the market

Mineral fertilizers

are a traditional product widely used in the agricultural sector.

- ➕ - Mineral fertilizers have a high concentration of nutrients, give a good result in increasing productivity.
 - ➖ - With an increase in application rates, they cause significant damage to the fertile soil layer and sharply worsen its productivity.
 - Mineral fertilizers in agricultural products enter the human body and can ultimately negatively affect human health.
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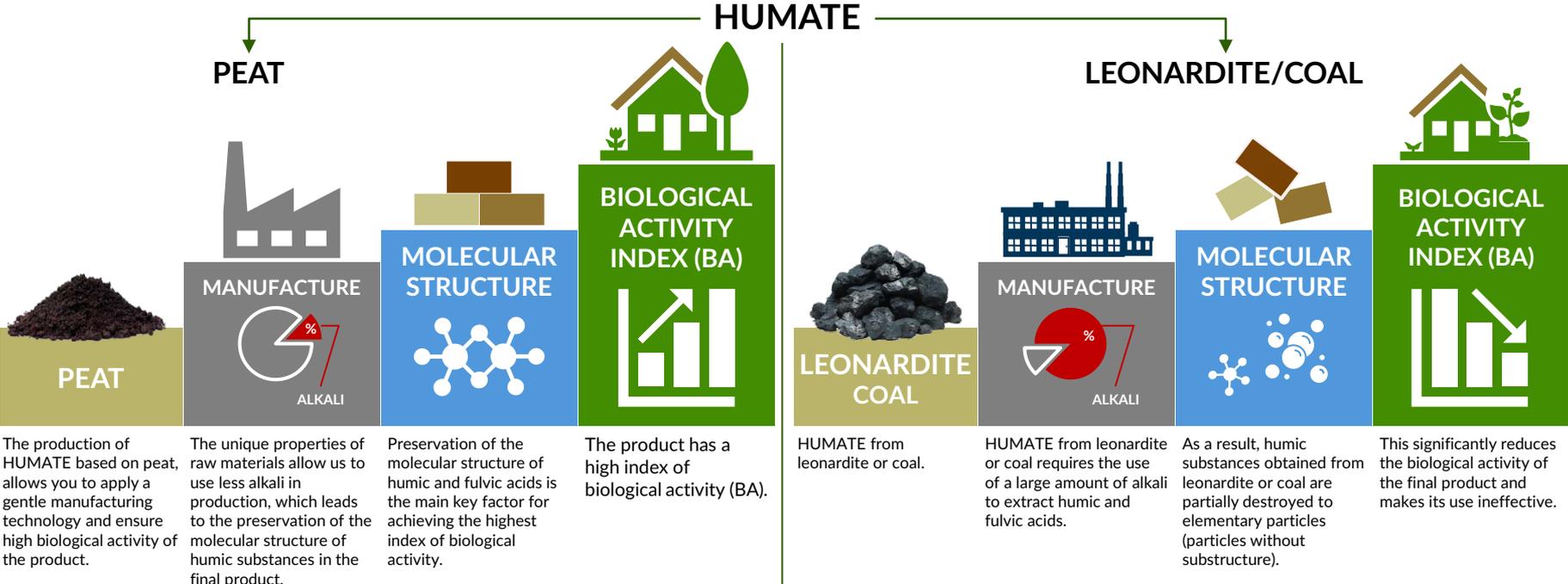
Organic fertilizers, traditional type, such as manure, chicken droppings, compost.

- ➕ - Organic fertilizers of the traditional type do not harm the soil and humans.
 - ➖ - They have a lower concentration of nutrients and trace elements, so they require large amounts of application.
 - They can not complete replacing mineral fertilizers, so they are used only in combination with them.
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Humic acid-based concentrates are organic additives that are produced from peat, sapropel, and various types of brown coal.

- ➕ - Humic concentrates do not harm the soil and humans, contribute to the restoration of soils.
- They have a sufficiently high efficiency to increase the productivity of agricultural products.
- ➖ - They can not replace the use of mineral fertilizers, so they are used only in combination with them.

Humates produced on peat have a higher index of biological activity than those based on leonardite/coal.



SOLUBILITY TIME

3-7 minutes
 20-50°C
 High BA index

The solubility time of the HUMATE depends on the size of the molecular chains the smaller the molecular chains had been the less time it takes to dissolve. For example, HUMATE is based on leonardite/coal, the molecular chains of which are destroyed to elementary particles, dissolve in 2-3 minutes, but the product has a low indicator of biological activity (BA). In contrast, molecular chains that are preserved by gentle technology have a longer structure and require more time to dissolve. For complete dissolution of HUMATE based on peat in warm water (20-50°C), it takes 3-7 minutes, while the product has a high index of biological activity.

2-3 minutes
 20-50°C
 Low BA index

Advantages of our fertilizer



Density: $1.08 \text{ g/cm}^3 \pm 0.20$

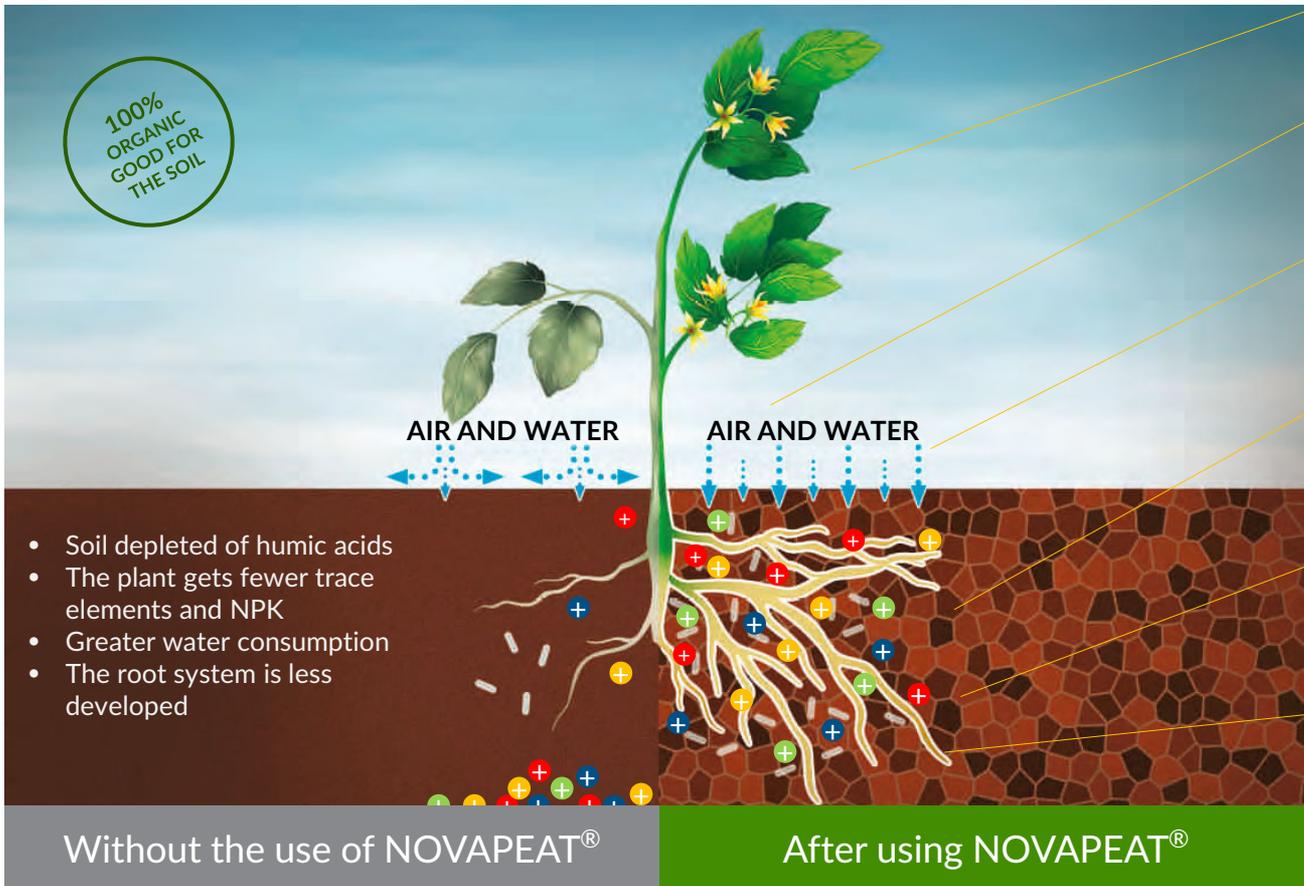
Humidity: $86.9\% \pm 1.2$

Dry residue: $13.1\% \pm 0.3$

NOVAPEAT® fertilizer advantages:

- The patented technology ensures the preservation of all useful substances, trace elements, and organics of peat – the main raw material;
- The high concentration of nutrients, trace elements, and NPK reduces the application rate;
- Minimizes the use of mineral fertilizers;
- Can be used as a self-sufficient fertilizer, completely excluding the application of other types of fertilizers;
- Adaptable fertilizer composition for different types of soils and crops;
- Possesses enhanced moisturizing effect, which increases soil wettability and its moisture capacity, and decreases the necessity of irrigation by 30%-40%;
- The application of NOVAPEAT® in any forms is absolutely safe for human health;
- Contains humus concentrate, which restores and forms a fertile soil layer.

NOVAPEAT® restores the humus layer of the soil, stimulates plant growth, and root system development.



- Soil depleted of humic acids
- The plant gets fewer trace elements and NPK
- Greater water consumption
- The root system is less developed

It provides a more developed structure of the stem, leaves, and fruit

By increasing the ability of colloids to bind water, humic acids prevent surface water runoff, cracking, and soil erosion.

Increases the water permeability of heavy soils and increases the moisture capacity of light soils, promotes soil ventilation.

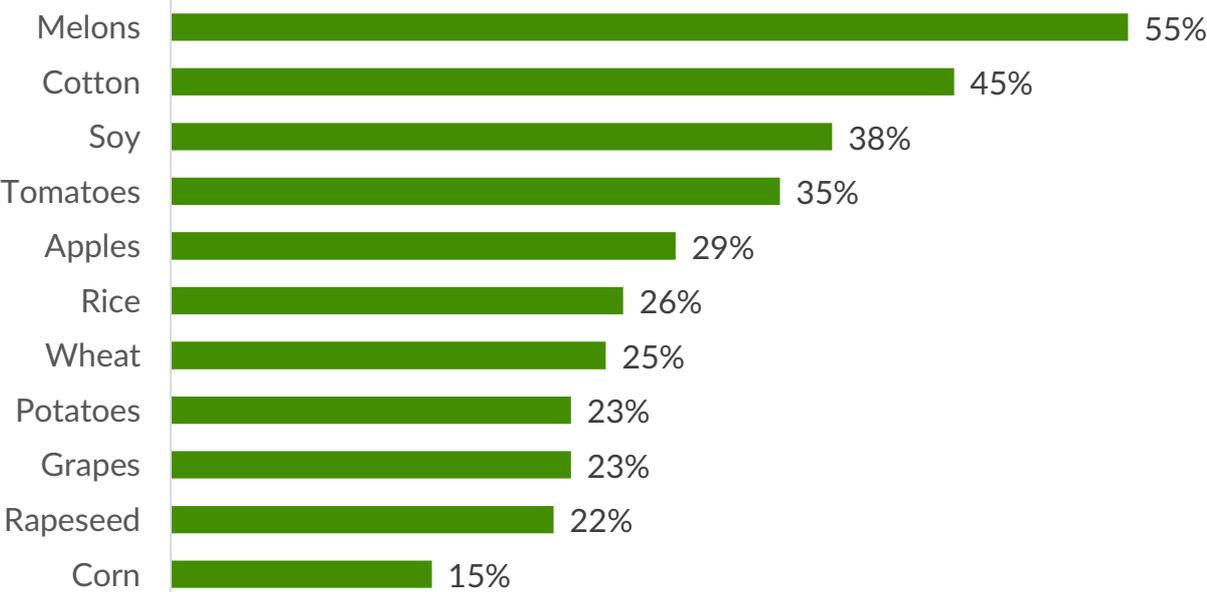
Humic acids, which restore the fertility of tired soil, are also used in areas flooded with heavy rains, which is associated with deterioration of fertility.

Humic acids create an environment in which beneficial soil organisms can develop correctly under optimal conditions.

Humus and its acids stimulate the development of root hairs, contributing to more efficient absorption of nutrients from the soil.

Results application of NOVAPEAT® for various crops

The effectiveness and safety of fertilizer are confirmed at the test sites of agricultural producers.

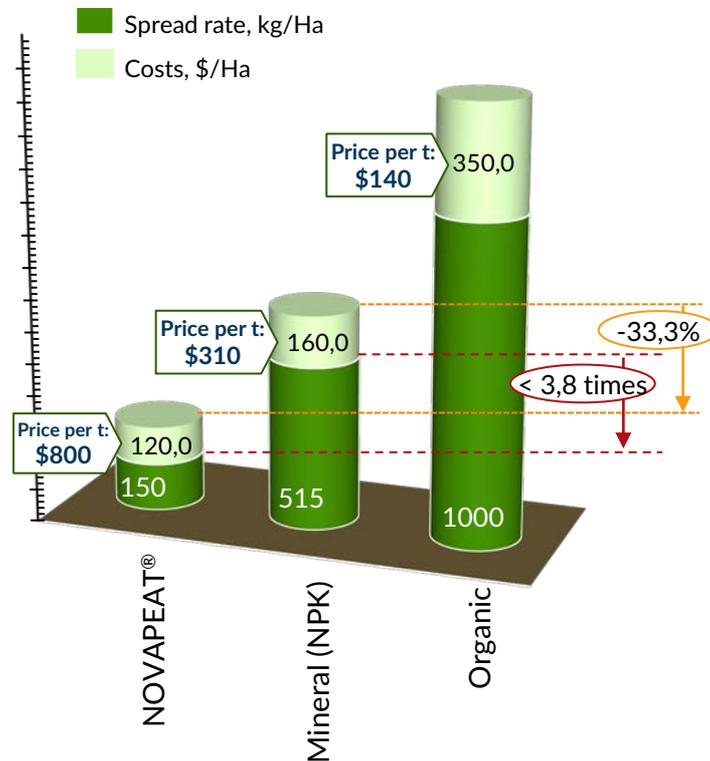


Yield increase for various crops from 15% to 55%.



Financial costs for NOVAPEAT® in comparison with mineral ones are 33% lower + savings due to the volume, which is 3.4 times less.

Parameter	Mineral (NPK)	Organic	NOVAPEAT®
Effect on plant growth	No	Partly	Yes
Impact on crop growth	Yes	Yes	Yes
Yield growth	1.8 times	1.5 times	2.0 times & more
Soil enrichment	No	Yes	Yes
Seasonality	Yes	Yes	No
Soil frequency in season	2 times	2 times	2-3 times
Decomposition time	Short	Long	Long
Application rates (for barley)	Average	High	Low
- kg per Ha:	515	2 000 – 2 500	120 – 150
Average price per ton	\$ 310	\$ 140	\$ 800
Average costs per Ha	\$ 160	\$ 350	\$ 120
Minuses			
Smell	No	Yes	No
The depletion of the soil	very high	is present	restores
Harm to plants	At high concentration	No	No
Harm to humans	At high concentration	No	No



NOVAPEAT® is an excellent solution for the efficient production of agricultural products.



Volume 10/25 l

NOVAPEAT® super humate

It is the universal organic fertilizer based on humic acids. It has a beneficial effect on the development of a root's powerful system in crops and activates the soil microflora. It improves the absorption of nutrients by plants and contributes to the restoration and preservation of soil fertility, increases productivity, and accelerates germination.

THE NPK INDICATES CAN BE CHANGED DEPENDING ON THE TYPE OF CULTURE, SOIL, OR CUSTOMER REQUIREMENTS

Composition:

	% on dry residue
Sum of humic acids including fulvic acids	≥30
Nitrogen (N)	≥8
Phosphorus (P)	≥ 1 (customize)
Potassium (K)	≥ 1 (customize)
Mass fraction of moisture	90
Mass fraction of dry matter	10
Organic	≥50
pH	9-12 (customize)



APPLICATION OF NOVAPEAT®

Suitable for all types of soil and all crops

Areas of application of NOVAPEAT®:

NOVAPEAT® can be used for all types of soils in the agricultural sector.

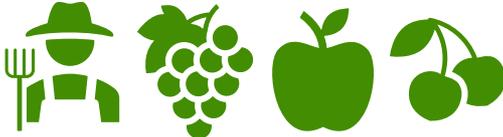
Thanks to the unique function of restoring the fertile layer, our fertilizer is used as a reducing agent for the following types of soils:

- depleted;
- eroded, with disturbed;
- soil structure, on which chemical plant protection products and mineral fertilizers have been used for a long time;
- desert and arid;
- saline;
- sandy and sandy loam, with a minimum content of organic nutrients.



NOVAPEAT® can be used for all types of crops

PRODUCTION OF AGRICULTURAL PRODUCTS



FORESTRY AND WOOD GROWING



FLORAL AND HOUSEHOLD FACILITIES

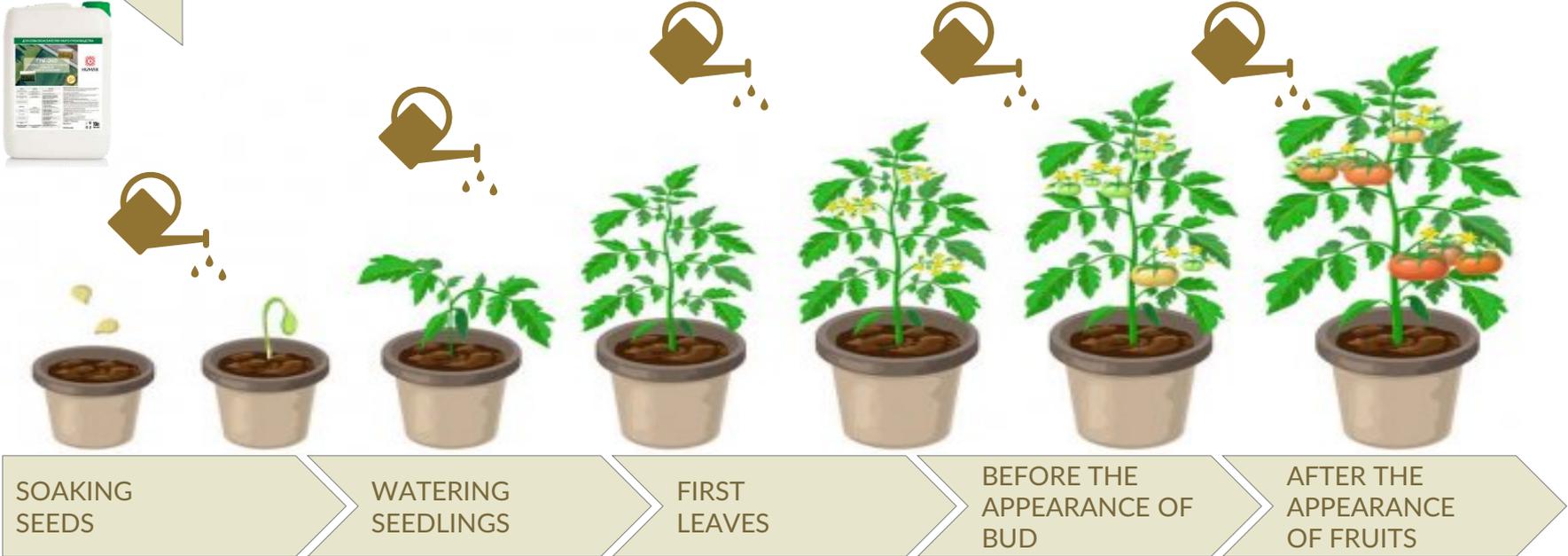


RESTORATION OF SOIL

Stages of application of NOVAPEAT®

NOVAPEAT® applications at different stages of germination

Our fertilizer can be used at any stage of plant development. Young roots, leaves, and growing seedlings respond more to the use of humic substances since young tissues have more active mechanisms for transferring nutrients.



* Instructions for use can be developed individually for each buyer and is made on request, according to the provided soil analyses and the type of agricultural crop.



RESEARCH & PROJECTS

EXECUTED PROJECTS AT TEST SITES

The results of the application of NOVAPEAT® on test sites

In the Istrinsky area (Moscow region), field tests of NOVAPEAT® fertilizer had been carried out on an agricultural crop – rapeseed, on a plot of 2 hectares. As a result, the yield of rapeseed increased by 22% or 748 kg per hectare, compared to the traditional technology of rapeseed cultivation (standard scheme of application of mineral fertilizer).

On the site with the use of NOVAPEAT®, oilseed rape plants looked more active, they had more leaves and a more developed root system. In later stages, the plant had a larger number of buds, which subsequently contributed to an increase in yield.

Site	Type of Fertilizer	Yield	Difference in yield	Difference in yield	Average costs	Add. growth income
		c/Ha	c/Ha	%	\$/c	\$/Ha
Istra distric	NPKS	34.0	-	-	3.80*	-
Istra distric	NOVAPEAT®	41.48	+7.48	+22%	2.90**(-31%)	+329***

* the average price of mineral fertilizers NPKS (21-10-10-2) - \$310 / ton, the consumption of the addition is made at the rate of 415 kg / Ha

** the average price of NOVAPEAT® fertilizer is \$800 / ton, the application rate is calculated at the rate of 150 kg / Ha

***the average sales price for rapeseed as of November 2020 - \$440 / ton

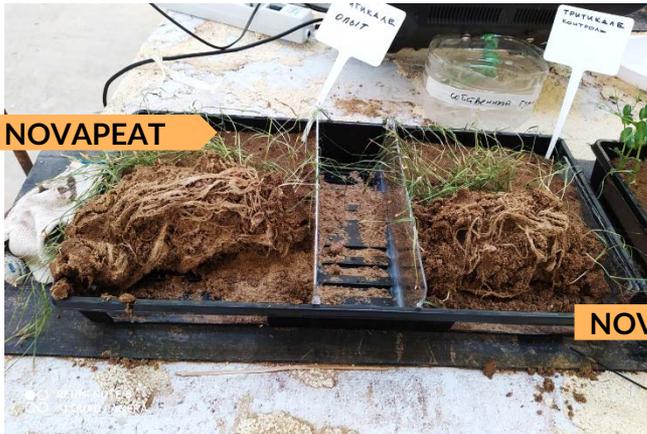
The results of the application of NOVAPEAT® in the conditions of sandy and clay soils



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Soil	limestone substrate
Photo	Left: without adding NOVAPEAT® Right: with the addition of NOVAPEAT®
Rate	15 ml / sq. m.
Site	Hashemite Kingdom of Jordan



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Soil	sand
Photo	left side with NOVAPEAT® right side without adding NOVAPEAT®
Result	The root system of the plant is more developed

The inspection results of NOVAPEAT® application: comparison of the plant root system



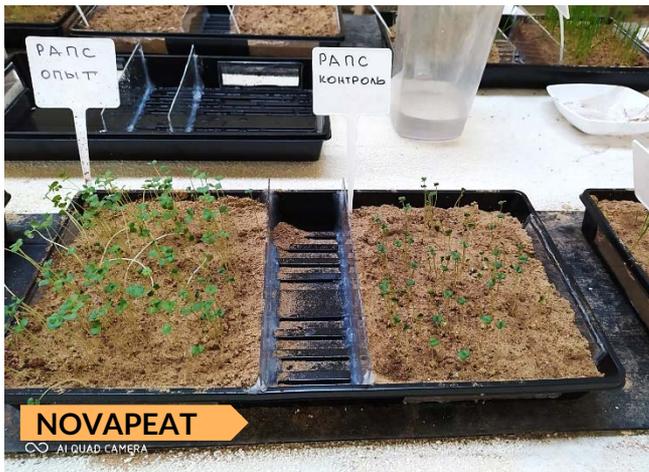
Soil	Sand / Sandstone
Cultivated plants	different
Норма	15 ml / sq. m.
Period	1-3 weeks
Photo	The inspection samples of the root system using NOVAPEAT®
Result	The strongly developed root system, powerful root
	Fertilizer NOVAPEAT® formed a humus layer for plant nutrition

The test results of using NOVAPEAT® for various crops on sand soil



Soil	Sand / Sandstone
Cultivated plants	Mustard Red fescue Ryegrass Wheat
Rate	15 ml / sq. m.
Period	1-3 weeks
Photo	Container marked "Experience" - cultivated plants using NOVAPEAT®
Result	High germination of crops on sandy soil

The test results of using NOVAPEAT® for various crops on sand soil



Soil	Sand / Sandstone
Cultivated plants	Peas Rapeseed
Rate	15 ml / sq. m.
Period	1-3 weeks
Photo	Container marked "Experience" - cultivated plants using NOVAPEAT®
Result	High germination of crops on sand soil The branched root system of a plant

The test results of using NOVAPEAT® for various crops on sand soil



Soil	Sand / Sandstone
Cultivated plants	Mustard
Норма	15 ml / sq. m.
Period	1-3 weeks
Photo	The inspection samples of the root system using NOVAPEAT®
Result	The strongly developed root system, powerful root
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