

NEW GENERATION ORGANIC FERTILIZER USER'S GUIDE

THE DATA IN THE MANUAL IS GIVEN FOR AVERAGED SOIL PARAMETERS AND CROPS





CONTENTS

- 1. Use in agriculture
- 2. Recommendations for using NOVAPEAT[®] for various crops:
 - Cereals;
 - Leguminous crops;
 - Cotton;
 - Sugar beet;
 - Sunflower;
 - Vegetables & Fruit.





USING THE NOVAPEAT HUMIC ACID FERTILIZER IN AGRICULTURE



NOVAPEAT IN CROP PRODUCTION:

- increases the yield of various crops: from 10% to 30% for cereals, cotton and from 40% to 50% or more for vegetables, various types of melons;
- reduces the agrochemicals consumption rates, including consumption rate of the carbamide, ammonium nitrate by 30%-70%, consumption rate of the phosphorus fertilizers by 20%-60%, consumption rate of the pesticides by 15%-20%, while relieving stress from their effects;
- increases the resistance of plants to bacterial and fungal diseases;
- increases the resistance of plants to adverse environmental conditions (drought, excessive humidity, frost, etc.);
- activates the development of the root system of plants and their respiration;
- improves the quality of products: increases the content of vitamins, sugars, proteins in it;
- reduces the content of nitrates, radionuclides and residual chemicals in products;
- improves the survival rate of seedlings, nurslings and saplings during transplantation;
- accelerates the ripening of the crop for 10-12 days;
- increases the water-holding capacity of soils by 20%-30%;
- increases soil fertility by renewing and activating the complex of microorganisms in soil;
- binds residual pesticides, heavy metals and other toxicants in soils, preventing them from getting into plants, groundwater and the atmosphere.



NOVAPEAT'S DIFFERENCE FROM THE COMPETITORS:

NOVAPEAT is a highly concentrated humic acid fertilizer with long-term effect. It effects the plant during the entire period of its growth and development - from seed germination to the very harvest. Humic acid fertilizers from oxidized coal (lignite) have associates of humic substance molecules of very large size, they cannot penetrate immediately into the plant cell, it takes time for their decomposition into smaller ones (under the influence of water, light, heat), so they can begin to provide effect only during the blossoming period and fruit ovaries or even later, but by this time the plant may become weakened or just die from drought or frost.

In contrast to the above, humic substance molecules in peat are much smaller in size, and some of them (fulvic acids and a number of other compounds, which the **NOVAPEAT** contains in large amounts) are able to penetrate into the plant cell immediately at the seed germination stage, giving it growth energy and increasing the root system. Thus, the plant tolerates both drought and frost better during the most vulnerable period - at the initial stage of growth, which is very important for countries with arid climate. Later, at the blossoming stage, humic acid molecules are included in the process, having already decomposed to a size capable of penetrating into the plant cell and the effect of the fertilizer continues until harvest.

NOVAPEAT is a safe product both for the environment and for the human as well.



INCREASING SOIL FERTILITY IS THE BASIS FOR HIGH-YIELD HARVEST

- Pre-sowing soil tillage is carried out no later than 2 weeks before sowing. The consumption of NOVAPEAT fertilizer during the pre-sowing tillage is from 10 liters to 35 liters per 1 hectare.
- It is allowed to use the NOVAPEAT fertilizer together with CAM (carbamideammonia mixture) and other mineral and organic fertilizers. In this case, the amount of these fertilizers can be reduced by 30%-70% of the usual amount. It is allowed to use the NOVAPEAT fertilizer together with crop protection chemicals.
- If it is necessary to use depleted and degraded areas for agriculture, or polluted areas (polluted with pesticides, heavy metals, organic pollutants, etc.), the dose of the NOVAPEAT fertilizer during pre-sowing treatment is, based on the characteristics of the area, **from 25 liters to 50 liters per 1 hectare.**





USING THE NOVAPEAT® FERTILIZER

CEREALS, LEGUMINOUS CROPS, SUNFLOWER



WHEAT, BARLEY, OATS, RYE

1. Se	L. Seed treatment2. Treatment during the vegetation period (spraying					3. Near-root tillage during the vegetation period				
<u>Soak</u> toge (herl	<u>king seed</u> ether with bicide).	<u>s</u> before plantin a seed protect	ng The 1 st treat ant of getting int	The 1 st treatment is the tillering phase - the beginning of getting into the tube.			<u>Double treatment:</u> 1st treatment - tillering phase; 2nd treatment - heading phase.			
<u>Activ</u> the I wate	ve solutic NOVAPE er for 1 0	<u>on:</u> 450-500 ml AT per 10 liters 00 kg of seeds.	of <u>The active so</u> of 25-30 liters	olution should be pre of the NOVAPEAT pe	pared at the rate of: er 1 hectare .	ared at the rate of: Fertilizer consumption rate: 18-20 liters of the NOVAPE 1 hectare . Preparation of the active solution: the recommended amount of feis diluted in the irrigation norm (determined by the climatic condit the region and the technical features of irrigation systems).				
							RA X			
S	owing	Formation of 1-3 leaves	Tillering	Stemming	Bracts	Heading	Blossoming	Milk-wax ripeness	Sowing	
anting			1 st treatme	ent	R	1	1	1	l	
					2 nd treatment	10				
	-	¥	No.	A.	h	in the	-			



RICE

	1. Seed tre	atment	2. Treatment during the vegetation period (sprayi			3. Near-root tillage during the vegetation period				
	<u>Soaking se</u> together w	<u>eds</u> before planting vith a seed protectant.	Single treatment:seed protectant.1st treatment - tillering phase - the beginning of getting into the tube.				Double treatment: 1 st treatment - tillering phase; 2 nd treatment - shoot formation phase.			
	Active solu the NOVA liters of wa seeds.	i <u>tion:</u> 400-500 ml of PEAT fertilizer per 10 Iter for 1 000 kg of	Active solution: 30-40 li in 400-500 liters of soft active solution depends protectants) per 1 hecta	ters of the NOVAPEAT of water (the volume of the on the type of seed re.	diluted e	d <u>Consumption of the fertilizer:</u> 35-45 liters of the NOVAPEAT per 1 hectare. Preparation of the active solution: the recommended amount of fertilizer is diluted in the irrigation norm (determined by the climatic conditions of the region and the technical features of irrigation systems).				
	Sowing	Germination	Til	lering	Getti	ng into the tube	Formation of shoots	Waxy ripeness		
Seed treatment before planting				1 st treatment	¥		2 nd treatment	Sealer -		
			I Y Y	Y Y	P	V				



SOY, RAPESEED, LENTIL, BEANS

1. Seed treatment

<u>Soaking seeds</u> before planting together with a seed protectant.

Active solution: 500-600 ml of the NOVAPEAT per 10 liters of water for 1000 kg of seeds. 2. Treatment during the vegetation period (spraying)

Triple treatment:

1st treatment - germination phase - formation of 2-3 real leaves;

2nd treatment - the phase of stemming - budding;

3rd treatment - phase of the beginning of blossoming.

<u>The active solution should be prepared at the rate of:</u> 35-45 liters of the NOVAPEAT per 1 hectare.

3. Near-root tillage during the vegetation period

Double treatment: 1st treatment - branching; 2nd treatment - the pod formation phase.

<u>Consumption of the fertilizer:</u> 35-45 liters of the NOVAPEAT per 1 hectare.

Preparation of the active solution: the recommended amount of fertilizer is diluted in the irrigation norm (determined by the climatic conditions of the region and the technical features of irrigation systems).

	Sowing	Cracking	Homogeneous development of sprouts	The appearance of the third ovaries	Branching	Bud formation	Blossoming	Pod formation	Pod ripening	Complete ripening
Seed treatment before planting			1st t	reatment	2 nd tro	eatment	3 rd treatment		ANT	



PEAS

1. Seed treatment	2. Treatment during the vegetation period (spraying)	3. Near-root tillage during the vegetation period
<u>Soaking seeds</u> before planting together with a seed protectant.	<u>Triple treatment</u> : 1 st treatment - the phase from seeds to leaves; 2 nd treatment - stemming phase -2-3 real leaves; 3 rd treatment - the budding phase.	Double treatment: 1 st treatment - the phase of the appearance of 3-5 leaves; 2 nd treatment - the pod formation phase.
<u>Active solution:</u> 450-500 ml of the NOVAPEAT per 10 liters of water for 1000 kg of seeds.	Prepare the active solution at the rate of: 25-35 liters of the NOVAPEAT per 1 hectare.	Consumption of the fertilizer: 35-45 liters of the NOVAPEAT per 1 hectare. Preparation of the active solution: the recommended amount of fertilizer is diluted in the irrigation norm (determined by the climatic conditions of the region and the technical features of irrigation systems).
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· · · · · · · · · · · · · · · · · · ·	Sowing	Seed germination	The appearance of cotyledons	Formation of 3-5 leaves	The beginning of blossoming	Pod ripening	Complete ripening
int ng			1 st treatment				
eatme olantii				2 nd treatment			
ed tre sfore				1. A.	3 rd treatment	D Jan	Jus
pe Se			~	518	38	134	134
	•	P	*	*		*	×.



COTTON

1. Seed trea	eed treatment 2. Treatment during the vegetation period (spraying)) 3. Near-root tillage	3. Near-root tillage during the vegetation period				
Soaking seeds before planting together with a seed protectant. Active solution: 450-500 ml of the NOVAPEAT per 10 liters of water for 1 000 kg of seeds.		<u>Triple treatment:</u> 1 st treatment - the phase leaves; 2 nd treatment - bud forma <u>Prepare the active solutio</u> 10-15 liters of the NOVA hectare.	of the appearance of 2-3 ation. <u>on at the rate of:</u> PEAT in 500 liters per 1	1 st treatment - the p 2 nd treatment in 12- 3 rd treatment - bloss <u>Fertilizer consumption</u> 1 hectare for each t <i>Preparation of the activity</i> <i>is diluted in the irrigation</i> <i>the region and the tech</i>	1 st treatment - the phase of the appearance of 3-5 leaves; 2 nd treatment in 12-15 days; 3 rd treatment - blossoming phase. <u>Fertilizer consumption rate:</u> 30-40 liters of the NOVAPEAT per 1 hectare for each treatment. Preparation of the active solution: the recommended amount of fertilizer is diluted in the irrigation norm (determined by the climatic conditions of the region and the technical features of irrigation systems).			
1 star	14	K J	J-C	1 -	ACT	100		
	7-12	14-15	55-65	70-75	120-145	150-190		
before	Seed germination	The appearance of 2-3 leaves	Bud formation	Blossoming	Boll opening	Complete ripening		
ent l ing		1 st treatment		A Port		ALC:		
Seed treatm plant			2 nd treatment		× Che	Ch.		

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SUGAR BEET

1. S	eed trea	itment	2. Treatme	2. Treatment during the vegetation period (spraying				3. Near-root tillage during the vegetation period			
Soaking seeds before planting Double treatment: together with a seed protectant. 1st treatment - germination phase - formation of 2-3 pairs of real leaves; 2 nd treatment - the phase of 2 pairs of real leaves-plants closing in rows.						Double treatment: 1 st treatment - the phase of the appearance of 2-3 leaves; 2 nd treatment - the appearance of 8 ovaries; 3 rd treatment - completion of the 50%.					
Active solution: 400-500 ml of the NOVAPEAT per 10 liters of water for 1000 kg of seeds.				5 liters	<u>Consump</u> per 1 heo Preparatio is diluted in the region	otion of the fertilize ctare. n of the active solutior n the irrigation norm (a and the technical feat	r: 35-45 liters of th the recommended an letermined by the clima ures of irrigation syster	e NOVAPEAT nount of fertilizer atic conditions of ns).			
4			1							N/	
	0	5	10	12	14		16	18	35	35	





SUNFLOWER

1. Seed treatment	2. Treatment during the vegetation period (spraying)	3. Near-root tillage during the vegetation period				
<u>Soaking seeds</u> before planting together with a seed protectant.	<u>Triple treatment</u> : 1 st treatment - germination phase - formation of 2-3 real leaves; 2 nd treatment - the phase of stemming - budding.	Double treatment: 1 st treatment - the phase of appearance of 3-5 pairs of leaves; 2 nd treatment - the phase of 9 leaves. 3 rd treatment - the phase of bud formation.				
Active solution: 350-500 ml of the NOVAPEAT per 10 liters of water for 1000 kg of seeds.	Prepare the active solution at the rate of: 50-60 liters of the NOVAPEAT per 1 hectare.	<u>Consumption of the fertilizer:</u> 35-45 liters of the NOVAPEAT per 1 hectare. Preparation of the active solution: the recommended amount of fertilizer is diluted in the irrigation norm (determined by the climatic conditions of the region and the technical features of irrigation systems).				
Sowing Germina- tion The appearance sprouts	of The appearance of 3-5 pairs of leaves Formation of more than 9 leaves Bud formation	The beginning of Blossoming blossoming of blossoming bl				
1 st treatmo	ent 2 nd treatment 3 rd treatment					
5 (+ E						



CORN

	1. Seed	treatment	
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2. Treatment during the vegetation period (spraying)

<u>Soaking seeds</u> before planting together with a seed protectant.

<u>Active solution:</u> 500-600 ml of the NOVAPEAT per 10 liters of water for 1000 kg of seeds. Double treatment: 1st treatment - germination phase - appearance of 3-5 leaves; 2nd treatment - the phase of the panicle formation-

blossoming. Prepare the active solution

<u>Prepare the active solution at the rate of:</u> 35-40 liters of the NOVAPEAT per 1 hectare.

3. Near-root tillage during the vegetation period

Double treatment:

 1^{st} treatment - the phase of the appearance of 3-5 leaves; 2^{nd} treatment - the phase of shoots.

<u>Consumption of the fertilizer:</u> 35-40 liters of the NOVAPEAT per 1 hectare.

Preparation of the active solution: the recommended amount of fertilizer is diluted in the irrigation norm (determined by the climatic conditions of the region and the technical features of irrigation systems).







USING THE NOVAPEAT® FERTILIZER

Vegetables



TOMATOES AND CUCUMBERS

1. Seed treatment	2. Treatment during the ve	egetation period (spraying)	3. Near-root tillage during the vegetation period			
Soaking seeds before planting together with a seed protectant.	Double treatment: 1 st treatment - the phase of leaves; Subsequent treatments w	of the appearance of 2-2 ith an interval of 10-15 days.	Double treatment: 1 st treatment - the phase of the appearance of 3-5 leaves; 2 nd treatment - the blossoming phase; 3 rd treatment - formation of the fruit.			
the NOVAPEAT per 10 liters of water for 1000 kg of seeds.	Prepare the active solution of the NOVAPEAT per 1 h	<u>n at the rate of:</u> 25-30 liters lectare.	<u>Consumption of the fertilizer:</u> 35-40 liters of the NOVAPEAT per 1 hectare for each treatment.			
The appearance of 1-3 leaves of 5-7 leaves O	vary formation Blo	ossoming Fruit forr	mation Fruit ripe	ening Harvesting		
1 st treatment 2 nd treatment	ment 3 rd treatment					
	atta-	The The	17	1 11		



POTATO

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1. Seed treatr	nent	2. Treatment during the vegetation peri	od (spraying) 3. N	Near-root tillage during	the vegetation period	ł
Soaking the tr planting.	<u>ubers</u> before	Double treatment: 1 st treatment - the phase of appearance	of 5-7 leaves; Dot 1 st 2nd	<u>puble treatment:</u> treatment - the phase o	f the appearance of 6	-8 ovaries;
Active solution the NOVAPE water for 100	<u>n:</u> 500-600 ml of AT per 10 liters of 10 kg of tubers.	Prepare the active solution at the rate of: 25-30 liters of the NOVAPEAT per 1 hectare.		2 nd treatment - the ripening phase. <u>Consumption of the fertilizer:</u> 40-45 liters of the NOVAPEAT per 1 hectare for each treatment.		
See a	A.L.	and the second second	A later	· / 10	1 AL	
- 20 C		A start and and	- Tolk		A	
Sowing	The appearance of sprouts	The appearance of 6-8 ovaries	The beginning of the formation of the skin	Blossoming	Ripening	Withering





ONION

1. Seed treatment

<u>Soaking the bulbs</u> for 3 hours before sowing.

<u>Active solution:</u> 400-500 ml of the NOVAPEAT per 12 liters of water for 1000 kg of the bulbs. 2. Treatment during the vegetation period (spraying)

<u>Triple treatment:</u> 1st treatment - the phase of the appearance of 2-2 leaves;

2 subsequent treatments with an interval of 10-15 days.

<u>Prepare the active solution considering the rate:</u> 15-20 liter of the NOVAPEAT per 1 hectare.

3. Near-root tillage during the vegetation period

Double treatment:

 1^{st} treatment - the phase of the appearance of 3-5 leaves; 2^{nd} treatment - onion head formation phase.

<u>Consumption of the fertilizer:</u> 25-30 liters of the NOVAPEAT per 1 hectare for each treatment.







USING THE NOVAPEAT® FERTILIZER

Fruits and berries



APPLES AND PEARS

1. Cuttings and seedlings treatment

Treatment of cuttings can be carried out together with fertilizers and biological products and allows to increase the survival rate of plants and accelerate their growth.

Soaking the cuttings for 24 hours. The consumption of the active solution is 18-20 liters per 1000 cuttings. 2. Treatment during the vegetation period (spraying)

<u>4-time treatment:</u>

1st treatment - 5-7 days after blossoming; 2nd treatment - at the beginning of the physiological drop of the ovaries;

3rd treatment - the period of flower buds appearing; 4th treatment - period of intensive fruit growth.

<u>The active solution should be prepared at the rate of:</u> 25-30 liters of the NOVAPEAT per 1 hectare.

3. Near-root tillage during the vegetation period

5-time treatment:

Watering should be carried out with an aqueous solution of the "NOVAPEAT" fertilizer.

The first watering is during the period of intensive growth of shoots.

The last watering is during the period of intensive fruit growth.

<u>Consumption of the fertilizer:</u> 45-50 liters of the NOVAPEAT per 1 hectare for each treatment.





MELONS: WATERMELON

1. Seed treatm	nent	2. Treatment during the veget	ation period (spraying)	3. Near-root tillage during the vegeta	tion period	
Soaking seeds together with	Soaking seedsbefore planting together with a seed protectant.Double treatment: 1st treatment - in the phase or 2nd treatment - in 10-15 daysActive solution: 500-600 ml of theThe active solution should be			<u>Triple treatment:</u> 1 st treatment - the phase of the appea 2 nd treatment - blossoming phase; 3 rd treatment - ripening.	rance of 3-5 leaves;	
Active solution NOVAPEAT po 100 kg of seed	<u>n:</u> 500-600 ml of the er 12 liters of water for ds.	The active solution should be 25-30 liters of the NOVAPEAT	prepared at the rate of: per 1 hectares.	<u>Consumption of the fertilizer:</u> 35-45 liters of the NOVAPEAT per 1 hectare for each treatment.		
Sowing	The appearance of sprouts	Leaves growth	Formation of the veg tops	etable Blossoming	Ripening	
Seed treatment before planting	~	रू <u>ह</u>	1 st treatment 2 nd	treatment		
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