

VEGETABLES

Mineral vegetable
nutrition program

Activ

We enhance nature



We enhance nature



We have been building our experience in the fertilizer industry since 1992. Our goal is to manufacture fertilizers making it possible to derive the very best nature has to offer. For this reason, our extensive product range entails the latest developments in biotechnology, in particular top grade chelates. As a result of our close long-term cooperation with scientific institutes and universities, we have manufactured proven and effective products. We constantly monitor our production process and incorporate the requisite modifications in striving to continue improving our offer and aligning it to meet customer needs and expectations. The Activ brand name is synonymous with high quality because of our close cooperation with scientific institutes and universities and our innovative technology based on proprietary research and experience. As a result, all our products adhere to the high standards of quality and environmental safety adopted in the European Union. Consequently, Activ fertilizers are purchased by gardeners from all over the world.

Activ fertilizers guarantee rich harvests in all conditions thanks to a unique combination of nutrients that protect and strengthen your plants



Arkop foliar fertilizers – active plant nutrition

Activ fertilizers guarantee rich harvests in all conditions thanks to a unique combination of nutrients that protect and strengthen your plants.

Providing plants with adequate amounts of individual nutrients is a prerequisite to generate a high-quality and high-volume yield fit for immediate sale, processing or storage. Factors such as soil exhaustion, inappropriate soil reaction, imbalances (antagonisms) between elements in the soil, stress conditions, such as frost or drought or excessive moisture may all exert an adverse impact on the root system's ability to uptake the required ions. Research has shown that in the case of shortage of nutrients in the soil, supplying plants with nutrients only through side-dressing is not very effective. In such situations a perfect solution is to provide extra-root nutrition with Activ fertilizers, making it possible to quickly replenish the required nutrients and improve the plant's energy balance thanks to supply of a large dose of fully absorbable microelement chelates and basic microelements, as well as biogenic amino acids.

Extra-root fertilization of field vegetables using Active fertilizers ensures:

- fast replenishment of nutrients both in the case of their deficit in the soil and hindered uptake
- comprehensive supply of macro- and micronutrients and biogenic amino acids
- better availability of microelements by plants compared to soil fertilization (from 10 to 30 times higher availability)

Scientists agree that correct growth and development of plants depends on the optimum supply of:

- macroelements such as: nitrogen, potassium, phosphorus, calcium, magnesium and sulfur
- microelements such as: zinc, copper, manganese, iron, boron, molybdenum
- beneficial elements such as cobalt, silicon and nickel

Shortage of these elements causes disorders in the correct functioning of the plants visible in the form of:

- leaf yellowing and poor plant growth (**nitrogen deficit**)
- chlorosis and then necrosis of the edges of leaves in the bottom part of the plant (**potassium deficit**)
- leaf reddening, weak flowering (**phosphorus deficit**)
- drastic halting of growth, shoot tips wilting, root sliminess, untypical chlorosis, leaf deformation and leaf tip wilting (**calcium deficit**)
- chlorosis between leaf nerves progressing from the center of the leaf (**magnesium deficit**)
- chlorosis of young leaves, impeded plant growth (**sulfur deficit**)
- inhibition of intermodal elongation, reduction of leaf lamina, light green and then necrotic older leaf discoloration (**zinc deficit**)
- chlorosis of young leaves (**copper deficit**)
- marble chlorosis of young leaves (**iron deficit**)
- chlorosis of youngest leaves (**iron deficit**)
- weakening of flowering, growth cone deformation, weak growth of secondary roots and development of empty spaces in roots, leaf chlorosis turning into necrosis (**boron deficit**)
- reduction of leaf lamina (whiptail) (**molybdenum deficit**)
- impeded nitrogen conversion in plants (**nickel deficit**)

Activ fertilizers contain an optimum selection of nutrients **balanced to fit the requirements of individual plant development phases**. Activ fertilizers are produced using state-of-the-art technology that guarantees the highest quality and availability.

Activ fertilizers mean active plant nutrition that works.

Why chelates?

Chelate-based fertilizers are the best solution for maximum availability of nutrients, regardless of the ambient conditions.

We recommend new generation fertilizers manufactured using biotechnology that guarantees the highest level of chelation of nutrients.

Effectiveness and ecology – chelates are compounds of break-through significance for agriculture. Nutrients required for correct growth and development of plants are bound with a specially selected organic carrier (the so-called chelator). Thanks to this structure the nutrient can be quickly picked up and incorporated into the metabolic processes. As a result nutrients do not end up in the soil and do not pollute the environment.

Efficiency and convenience – application of chelated fertilizers ensures better utilization of nutrients. In addition, it makes it possible to reduce the amount of the preparation applied in comparison with traditional products. The unique, balanced composition ensures action in multiple directions and supplies the appropriate dose of nutrients using a single product (e.g. FoliarActiv).

Arkop chelates are technologically advanced new-generation fertilizers characterized by a very high level of chelation (as opposed to simple comprehensive compounds) confirmed by authorized laboratories, among others by PCBC (Polish Center for Testing and Certification).

Arkop chelates provide the quality you can trust

Why amino acids?

Activ fertilizers have been enriched by biogenic plant amino acids obtained as a result of a technologically advanced hydrolysis (e.g. Activ ProAmin Vegetables, AminoMag Activ, ActiCal). Thanks to that additional measurable benefits have been obtained:

- Activ fertilizers have biostimulating action
- Application of Activ fertilizers improves the plants' energy balance which translates into better productivity
- Application of Activ fertilizers together with a pesticide improves the effectiveness of plant protection

Chelates - the relationship with Nature



Recommended foliar fertilizers



Magnesium Sulfate Monohydrate

MgO – 23% | SO₃ – 46% + micro Zn i Mn

Magnesium Sulfate Monohydrate is a well-known and highly-valued fertilizer incorporating the core principles of fertilization. Plant nutrition with **magnesium sulfate monohydrate** is the best way to supply plants with **magnesium and sulfur**: nutrients needed to ensure proper growth, high yields and optimum structural quality.

- Supplements shortages of sulfur and magnesium
- Intensifies the photosynthesis process and improves nitrogen utilization
- Improves the effectiveness of plant protection agents
- Improves the health of plants

Solid chelates

Actipol Fe, Mn, Zn, Cu, Co

Fe-13, Mn-13, Zn-15, Cu- 15, Co-13

Liquid L-Actipol Fe, Mn, Zn, Cu, Mo chelates

L-Actipol Fe, Mn, Zn, Cu, Mo

Fe- 6, Mn- 6, Zn- 6, Cu – 6, Mo-6

Innovative technology for production of microelement chelated fertilizers has enabled us to obtain stable compounds in a broad pH range, resistant to external factors, offering perfect availability and maintaining efficacy in the periods of hindered uptake of nutrients. Chelates can be used for interventions supplementing microelement deficits. In appropriate doses they can be applied together with other fertilizers or pesticides.

- Prevention or elimination of the deficits of individual microelements
- Improvement of the functioning of the plant organism
- Improvement of the efficiency of photosynthesis
- Improvement of plant productivity
- Increase of resistance to stress factors

ActiBor 150 | Super ActiBor 21

B – 11% (150 g/l) Boron ethanolamine
B – 21% based on sodium borate

ActiBor 150 and **Super ActiBor 21** are fertilizers with high boron content, earmarked for all vegetable crops.

Application:

- Activation of pollination processes
- Improvement of the intensity of flowering
- Intensification of cell divisions
- Strengthening of growth of secondary roots
- Improvement of quality of crops
- Improves resistance to thermal stress

FoliarActiv

Balance | Balance with Boron | Phosphorus + Phosphorus-Potassium + | Potassium-Phosphorus + | Nitrogen +

The **FoliarActiv** line is a line of specialized, macroelement fertilizers for extra-root application, enriched by chelated microelements. Thanks to perfect balancing of nutrients these fertilizers ensure intensive growth and development during all plant development phases. The **FoliarActiv** line works particularly intensively during thermal and water stress and weakening of plants by diseases and vermin. The broad range of these fertilizers makes it possible to select appropriate nutrients depending on the atmospheric conditions and the plant’s development phase. **FoliarActiv** extra-root fertilizers also provide a complete set of high quality chelated microelements. The elements supplied in this form are very quickly and easily absorbed and efficiently used in the plant’s life processes. **FoliarActiv** means:

- Effective and quick prevention of nitrogen, phosphorus and potassium deficits
- Intensive growth and development of plants
- Improved plant health
- Growth of crops and improvement of crop quality
- Improved resistance to stress factors
- Active extra-root nutrition for plants
- Application of iron in the form of a DTPA chelate increases the scope of availability of this element

FoliarActiv	Nutrients % [m/m]										
	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	Zn	Cu	Mn	Fe	B	Mo
						In the form of chelates					
						EDTA			DTPA		
Balance	20	20	20	0,7	1,38	0,01	0,015	0,06	0,12	0,02	0,01
Balance with boron	20	20	20	0,35	0,63	0,02	0,03	0,01	0,02	0,1	0,01
Phosphorus +	10	52	10	-	-	0,015	0,015	0,06	0,12	0,02	0,01
Phosphorus-Potassium +	9	40	26	0,43	0,87	0,016	0,016	0,06	0,12	0,02	0,01
Potassium-Phosphorus +	6	20	36	-	2,26	0,016	0,015	0,06	0,12	2,5	0,015
Nitrogen +	33	10	10	-	-	0,016	0,015	0,06	0,12	0,02	0,015

Recommended foliar fertilizers



Activ ProWigor Vegetables

MgO 5,0 % | SO3 total 85% (water soluble 10,0%)
Fe EDTA 0,2% | N 1,15% | Mo 0,04% | contains Nickel

High class, innovative stimulator improving plant productivity. Thanks to optimum balancing of such components as sulfur, magnesium, iron, molybdenum and nickel, it intensifies the utilization and conversion of nitrogen and the photosynthesis process, and thus strengthens the plant. The right mix of chelated components in proper proportions as well as the innovative use of nickel, which has recently come to be considered an essential nutrient as a component of urease, intensifies the photosynthesis process when leaves and shoots are undergoing their quickest development.

- Stimulation of utilization of the soil nitrogen and improvement of metabolism of this macroelement
- Intensification of the photosynthesis process
- Improvement of the health of plants

Activ ProAmin Vegetables

MgO 5% | Fe 1,8% | Mn 0,72% | Cu 0,06% | amino acids

Fully dissolvable fertilizer with high content of available α -amino acids designed for extra-root nutrition of fruit plants. Application of **Activ ProAmin Vegetables** intensifies plant productivity through significant acceleration of protein biosynthesis and delivery of intracellular energy gain. The energy saved in the protein biosynthesis process activates other metabolic processes, which translates into general improvement of the functioning of plants.

Activ ProAmin Vegetables contains a complete set of biogenic amino acids manufactured using a technologically advanced enzymatic hydrolysis of vegetable protein. Thanks to precisely targeted production processes, the amino acids contained in **Activ ProAmin Vegetables** are available to plants in at least 80%.

Application:
Application of Activ ProAmin Vegetables is exceptionally effective in the periods of critical demand for energy (flowering, intensive growth of useable parts, ripening) and in stress periods (thermal stress, plant damage by herbicides), in which supply of easily available biogenic α -amino acids has biostimulating action on the plants.

- Biostimulation of the efficacy of the basic plant life functions and intensification of metabolism
- Improvement of utilization of nutrients and productivity of plants
- Intensification of the photosynthesis process

FlorActiv

Fe DTPA 7,97 % | Mn EDTA 3,13 % | Zn EDTA 1,56 %
Cu EDTA 0,65% | B 1,24 % | Mo 0,29 %

FlorActiv is a specialized fertilizer for vegetables based on amino acids, provides plants with special composed microelements complex - chelates. Innovative technology for production of microelement amino acids fertilizers has enabled us to obtain compounds offering perfect availability and maintaining efficacy in the periods of hindered uptake of nutrients. **FlorActiv**:

- Prevention or elimination of the deficits of individual microelements
- Improvement of resistance to stress factors
- Improvement of the functioning of the plant organism
- Improvement of the efficiency of photosynthesis

ActiCal

CaO – 9,6 % (CaO - 112 g/l) Zn EDTA – 0,01 % Mo - 0,001 %

ActiCal is a liquid foliar specimen of the latest generation containing calcium in the form of a high quality chelate. This unique **amino acid formulation of calcium (CALAC112)** substantially augments bioavailability, eliminating the drawbacks associated with the low mobility of calcium ions in plants (**CaO calcium content – 112 g/l**). **It is convenient to use and is one of the few products in the market does not contain chlorine or nitrates.**

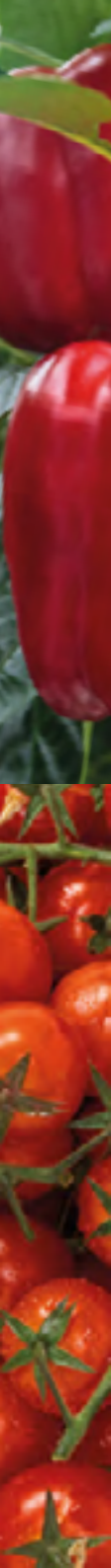
- Improvement of durability and mechanical resistance of the useable parts
- Prevention of physiological diseases caused by calcium deficit
- No white deposits on the leaves and fruit
- No risk of burning the leaf lamina and fruit in comparison to traditional calcium fertilizers containing chlorine and nitrates
- Very quick availability of calcium
- High class amino acids

AminoMag Activ

23% MgO, 46% SO3, amino acids - 0,5 %

AminoMag Activ is a latest generation fertilizer with biostimulating properties. Thanks to a unique combination of magnesium, sulfur and a complete set of biogenic amino acids, it offers exceptional effectiveness in activation of photosynthesis and productivity of plants. Addition of amino acids speeds up the uptake and utilization of the nutrients contained in the fertilizer by the plants.

- Increase of the chlorophyll content and improvement of the efficiency of photosynthesis
- Improvement of utilization of nitrogen and nitrogen metabolism
- Biostimulating action













pepper
tomato

 **Mineral nutrition
program for tomato
and pepper with
ARKOP fertilizers**

Development phase



FoliarActiv Phosphorus + 10-52-10+micro 	1-2 applications – dose 1-3 kg /ha				
ActiCal 	Application - dose 1-2l/ha			1-2 applications – dose 1-2 l/ha	2-3 applications – dose 1-2 l/ha
FoliarActiv Balance micro with boron 		1-2 applications – dose 2-3 kg /ha			
Activ ProAmin Vegetables 		1-2 applications – dose 1-2 l/ha			1-3 applications – dose 2-3 l/ha
ActiBor 150 or Super ActiBor 21			1-2 applications – dose 0,5-1 l/ha (kg/ha)		
AminoMag Activ 			1-2 applications – dose 2-3 kg/ha		
FoliarActiv Nitrogen + 33-10-10+micro 				1-2 applications – dose 2-3 kg/ha	
Activ ProVigor Vegetables 				1-2 applications – dose 1-2 l/ha	
FoliarActiv Potassium + 6-20-36+micro 					1-2 applications – dose 2-3 kg/ha
FlorActiv 	From planting to fruition - dose 0,2-03 kg/ha				
Magnesium Sulfate Monohydrate MgO 23%	From planting to fruition - dose 2-4 kg/ha				
Actipol Fe, Mn, Zn, Cu L-Actipol Fe, Mn, Zn, Cu, Mo 	From planting to fruition - dose 0,5-1 kg/ha (l/ha)				



After planting



Before flowering



Flowering



Growth of fruit



Fruition

purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
After planting	Stimulation of root system development	FoliarActiv Phosphorus +10-52-10+micro	The phosphorus activates regeneration and reconstruction of the root system. Potassium and microelements increase the plant's resistance to droughts and cold weather
		ActiCal	Supply of calcium improves the flexibility of the cell wall and improves selectiveness of nutrient uptake
Before flowering	Stimulation of development of the vegetative part	FoliarAvtiv Balance micro with Boron	Supply of a balanced combination of macro- and micronutrients prevents deficits and stimulates the vegetative development of plants
		Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
Flowering	Stimulation of fruit setting	Actibor 150 or Super Actibor 21	Supply of boron stimulates fruit setting especially in unfavorable weather conditions
		AminoMag Activ	Amino acids have biostimulating action on the plants. High magnesium and sulfur content improves the efficiency of photosynthesis and increases utilization of nitrogen
Growth of fruit	Intensification of development of fruit	FoliarActiv Azot + 33-10-10+micro	High nitrogen content improves plant productivity and the remaining macro- and micronutrients improve metabolism
		ActiCal	Application of calcium directly on the fruit prevents tip dry rot
		Activ ProWigor Vegetables	High magnesium and sulfur content activates photosynthesis and intensifies utilization of nitrogen. Sulfur strengthens plants and improves their resistance to diseases
Fruition	Stimulation of growth of the fruit mass and improvement of mechanical resistance	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		ActiCal	Application of calcium directly on the fruit prevents tip dry rot
		FoliarActiv Potas + 6-20-36+micro	Supplemented potassium improves fruit firmness, coloration and eliminates the symptoms of the so-called green shoulders
From planting to the end of fruition	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements prevents deficits and improves general functioning of plants
		Magnesium sulfate monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu	Supply of microelements prevents deficits and improves general functioning of plants



pumpkin

cucumber



Mineral nutrition
program for cucumber
and pumpkin with
ARKOP fertilizer

Development phase



FoliarActiv Phosphorus + 10-52-10+micro
ActiCal
FoliarActiv Balance micro with boron
Activ ProAmin Vegetables
ActiBor 150 or Super ActiBor 21
AminoMag Activ
FoliarActiv Nitrogen + 33-10-10+micro
Activ ProVigor Vegetables
FlorActiv
Magnesium sulfate Monohydrate MgO 23%
Actipol Fe, Mn, Zn, Cu L-Actipol Fe, Mn, Zn, Cu, Mo



2-4 proper leaves



4-8 proper leaves



Fruit setting



Growth of fruit / fruition

1-2 applications – dose 1-3 kg/ha			
	Application – dose 1-2 l/ha	Application – dose 1-2 l/ha	1-3 applications – dose 1-2 l/ha
	Application – dose 2-3 kg/ha		2-3 applications – dose 2-4 kg /ha
	1-2 applications – dose 1-2 l/ha	Application – dose 1-2 l /ha	1-3 applications – dose 2-3 l /ha
		Application – dose 0,5-1 l/ha / 0,5-1 kg/ha	
		Application – dose 2-3 kg /ha	
			1-2 applications – dose 1-2 l/ha
From germination to harvest - application – dose 0,2-0,3 kg/ha			
From germination to the end of fruition - application – dose 2-4 kg/ha			
From germination to the end of fruition - application – dose 0,5-1 kg/ha (l/ha)			

purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
2-4 proper leaves	Stimulation of root system development	FoliarActiv Phosphorus + 10-52-10+micro	The phosphorus activates development of the root system. Potassium and microelements increase the plant's resistance to stress factors (droughts and cold weather)
4-8 proper leaves	Stimulation of development of the vegetative part	FoliarActiv Balance micro with boron	Supply of a balanced combination of macro- and micronutrients prevents deficits and stimulates the vegetative development of plants
		Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		ActiCal	Supply of calcium improves the flexibility of the cell wall and improves selectiveness of nutrient uptake
Fruit setting	Stimulation of fruit setting	Actibor 150 or Super Actibor 21	Supply of boron stimulates fruit setting especially in unfavorable weather conditions
		ActiCal	Supply of calcium prevents fall of buds and shoot tip wilting
		Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		AminoMag Activ	Amino acids have biostimulating action on the plants. High magnesium and sulfur content improves the efficiency of photosynthesis and increase utilization of nitrogen
Growth of fruit / fruition	Intensification of development of fruit	FoliarActiv Balance micro with boron	High nitrogen content improves supply of a balanced combination of macro- and micronutrients intensifies growth of fruit
		ActiCal	Supply of calcium prevents fall of buds and shoot tip wilting
		Activ ProVigor Vegetables	High magnesium and sulfur content activates photosynthesis and intensifies utilization of nitrogen. Sulfur strengthens plants and increases their resistance to diseases
		Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants, facilitating their basic life processes
From germination to the end of fruition	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements prevents deficits and improves general functioning of plants
		Magnesium Sulfate Monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu	Supply of microelements prevents deficits and improves general functioning of plants



Mineral nutrition program for head cabbage (white, red, savoy) with ARKOP fertilizers

Development phase



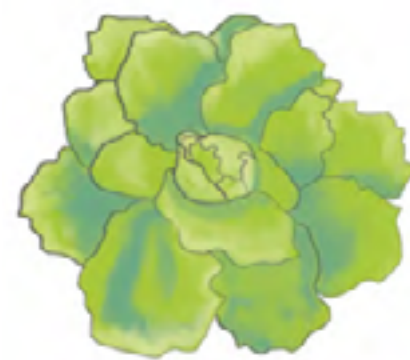
After planting the seedlings



4-8 leaves



8-12 leaves



Head setting



Growth of heads



FoliarActiv Phosphorus 10-52-10+micro



1-2 applications - dose 1-3 kg/ha

ActiCal



Application - dose 1-2 l/ha

1-2 applications - dose 1-2 l/ha

2-3 applications - dose 1-2 l/ha

Activ ProAmin Vegetables



Application - dose 1-2 l/ha

1-3 applications - dose 2-4 l/ha

ActiBor 150 or **Super ActiBor** 21

Application - dose 0,5-1 l/ha, 0,5-1 kg/ha

AminoMag Activ



Application - dose 2-3 kg /ha

FoliarActiv Nitrogen + 33-10-10+micro



1-2 applications - dose 2-3 kg/ha

Activ ProVigor Vegetables



Application - dose 2-3 l/ha

2-3 applications - dose 1-2 l/ha

FlorActiv



From planting to harvest - application - dose 0,2-0,3 kg/ha

Magnesium Sulfate Monohydrate MgO 23%

From planting to harvest - application - dose 2-4 kg/ha

Actipol Fe, Mn, Zn, Cu



L-Actipol Fe, Mn, Zn, Cu, Mo

From planting to harvest - application - dose 0,5-1 kg/ha (l/ha)

purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
After planting the seedlings	Stimulation of root system development	FoliarActiv Phosphorus + 10-52-10+micro	The phosphorus activates regeneration and development of the root system. Potassium and microelements increase the plant's resistance to stress factors
4-8 leaves	Stimulation of correct development	ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of the youngest leaves
		Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and prevents wilting of the youngest leaves
8-12 leaves	Stimulation of correct development	Activ ProVigor Vegetables	High magnesium and sulfur content and properly selected microelements activates photosynthesis and intensifies utilization of nitrogen
		Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
Head setting	Intensification of development	FoliarActiv Nitrogen + 33-10-10+micro	High nitrogen content improves plant productivity and the remaining macro- and micronutrients improve metabolism
		ActiCal	Supply of calcium prevents tip burn and physiological diseases of the interior of the head
		AminoMag Activ	Amino acids have biostimulating action on the plants. Supply of a big dose of magnesium and sulfur improves the efficiency of photosynthesis and increases utilization of nitrogen
Growth of heads	Stimulation of growth of heads and improvement of utility parameters	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		ActiCal	Supply of calcium prevents tip burn and physiological diseases of the interior of the head
		Activ ProVigor Vegetables	High magnesium and sulfur content activates photosynthesis and intensifies utilization of nitrogen. Sulfur strengthens plants and improves their resistance to diseases
From planting to harvest	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements revents deficits and improves general functioning of plants
		Magnesium Sulfate Monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu, L Actipol Mo	Supply of microelements prevents deficits and improves general functioning of plants



Mineral nutrition program for chinese cabbage with ARKOP fertilizers

Development phase



FoliarActiv Phosphorus + 10-52-10+micro



ActiCal



FoliarActiv Balance micro with boron



Activ ProAmin Vegetables



ActiBor 150 or | Super ActiBor 21

AminoMag Activ



FoliarActiv Nitrogen + 33-10-10+micro



Activ ProVigor Vegetables



FlorActiv



Magnesium Sulfate Monohydrate MgO 23%

Actipol Fe, Mn, Zn, Cu



L-Actipol Fe, Mn, Zn, Cu, Mo



After planting the seedlings



Development of leaves



Head setting



Growth of heads

1-2 applications - dose 1-3 kg /ha

application - dose 1-2 l/ha

1-2 applications - dose 1-2 l/ha

2-3 applications - dose 1-2 l/ha

Application - dose 1-2 l /ha

Application - dose 1-3 l /ha

1-2 applications - dose 2-4 l /ha

Application - dose 0,5-1 l/ha/ 0,5-1 kg/ha

Application - dose 2-3 kg /ha

1-2 applications - dose 2-3 kg/ha

Application - dose 2-3 l/ha

2-3 applications - dose 1-2 l/ha

From planting to harvest - application - dose 0,2-0,3 kg/ha

From planting to harvest - application - dose 2-4 kg/ha

From planting to harvest - application - dose 0,5-1 kg/ha (l/ha)

purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
After planting the seedlings	Stimulation of root system development	FoliarActiv Phosphorus 10-52-10 + micro	The phosphorus activates regeneration and development of the root system. Potassium and microelements increase the plant's resistance to stress factors
Development of leaves	Stimulation of correct development	ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of the youngest leaves
		Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and prevents wilting of the youngest leaves
		AminoMag Activ	Amino acids have biostimulating action on the plants. Supply of a big dose of magnesium and sulfur improves the efficiency of photosynthesis and increases utilization of nitrogen
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Head setting	Intensification of development	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		ActiCal	Supply of calcium prevents tip burn and physiological diseases of the interior of the head
		Activ ProVigor Vegetables	High magnesium and sulfur content and properly selected microelements activates photosynthesis and intensifies utilization of nitrogen
Growth of heads	Stimulation of growth of heads and improvement of utility parameters	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		ActiCal	Supply of calcium prevents tip burn and physiological diseases of the interior of the head
		Activ ProVigor Vegetables	High magnesium and sulfur content activates photosynthesis and intensifies utilization of nitrogen. Sulfur strengthens plants and improves their resistance to diseases
		FoliarActiv Nitrogen 33+10+10 + micro	High nitrogen content improves plant productivity and the remaining macro- and micronutrients improve metabolism
From planting to harvest	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements prevents deficits and improves general functioning of plants
		Magnesium Sulfate Monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu, L Actipol Mo	Supply of microelements prevents deficits and improves general functioning of plants

ARKOP
Mineral nutrition
program for brussels
sprouts with ARKOP
fertilizers

Development phase



FoliarActiv Phosphorus + 10-52-10+micro	
ActiCal	
FoliarActiv Balance micro with boron	
Activ ProAmin Vegetables	
ActiBor 150 or Super ActiBor 21	
AminoMag Activ	
FoliarActiv Nitrogen + 33-10-10+micro	
Activ ProVigor Vegetables	
FoliarActiv Potassium + 6-20-36+micro	
FlorActiv	
Magnesium Sulfate Monohydrate MgO 23%	
Actipol Fe, Mn, Zn, Cu	
L-Actipol Fe, Mn, Zn, Cu, Mo	



After planting the seedlings



Intensive vegetative growth

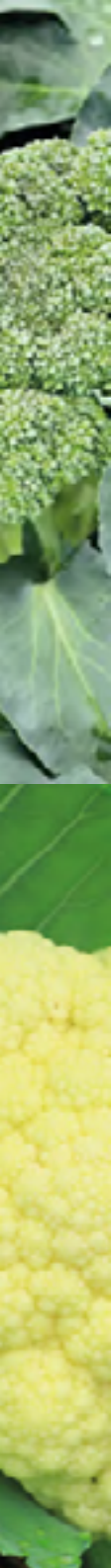


Head setting

1-2 applications - dose 1-3 kg /ha		
	Application - dose 1-2 l/ha	1-2 applications - dose 1-2 l/ha
	Application - dose 1-3 l /ha	1-2 applications - dose 2-4 l /ha
	Application - dose 0,5-1 l/ha/ 0,5-1 kg/ha	
	1-2 applications - dose 2-3 kg /ha	
		1-2 applications - dose 1-3 l/ha
		1-2 applications - dose 2-6 kg/ha
	From planting to harvest - application - dose 0,2-0,3 kg/ha	
	From planting to harvest - application - dose 2-4 kg/ha	
	From planting to harvest - application - dose 0,5-1 kg/ha (l/ha)	

purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
After planting the seedlings	Stimulation of root system development	FoliarActiv Phosphorus 10-52-10+micro	The phosphorus activates regeneration and development of the root system. Potassium and microelements increase the plant's resistance to stress factors
Intensive vegetative growth	Stimulation of correct development	ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of shoot apices
		Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and prevents russetting and wilting of apical buds and shoot apices
		AminoMag Activ	Amino acids have biostimulating action on the plants. Supply of a big dose of magnesium and sulfur improves the efficiency of photosynthesis and improves utilization of nitrogen
		Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
Head setting	Intensification of development	Activ ProVigor Vegetables	The application satisfies the high demand for sulfur and magnesium, intensifies photosynthesis and improves utilization of nitrogen
		ActiCal	Supply of calcium prevents tip burn and ensures appropriate quality of heads after harvest
		FoliarActiv Potassium + 6-20-36+micro	Supplemented potassium improves head firmness and utility parameters
		Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
From planting to harvest	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements prevents deficits and improves general functioning of plants
		Magnesium Sulfate Monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu, L Actipol Mo	Supply of microelements prevents deficits and improves general functioning of plants



broccoli

cauliflower



Mineral nutrition
program for
cauliflower and
broccoli with ARKOP
fertilizers

Development phase



FoliarActiv Phosphorus + 10-52-10+micro	
ActiCal	
L-Actipol Mo	
Activ ProAmin Vegetables	
ActiBor 150 or Super ActiBor 21	
AminoMag Activ	
FoliarActiv Nitrogen + 33-10-10+micro	
Activ ProVigor Vegetables	
FlorActiv	
Magnesium Sulfate Monohydrate MgO 23%	
Actipol Fe, Mn, Zn, Cu	
L-Actipol Fe, Mn, Zn, Cu, Mo	



After planting the seedlings



Development of leafage



Beginning of rose forming



1-2 applications - dose 1-3 kg /ha			
	Application - dose 1-2 l/ha	Application - dose 1-2 l/ha	1-2 applications - dose 1-2 l/ha
	Application - dose 0,5-1,0 l/ha		
		1-2 applications - dose 1-2 l/ha	
	Application - dose 0,5-1 l/ha, 0,5-1 kg/ha	Application - dose 0,5-1 l/ha, 0,5-1 kg/ha	Application - dose 0,5-1 l/ha, 0,5-1 kg/ha
	Application - dose 2-3 kg/ha		
			1-2 applications - dose 2-3 kg/ha
			1-2 applications - dose 1-2 l/ha
			From planting to harvest - application - dose 0,2-0,3 kg/ha
			From planting to harvest - application - dose 2-4 kg/ha
			From planting to harvest - application - dose 0,5-1 kg/ha (l/ha)

purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
After planting the seedlings	Stimulation of root system development	FoliarActiv Phosphorus 10-52-10+micro	The phosphorus activates regeneration and development of the root system. Potassium and microelements increase resistance to stress factors
Development of leafage	Stimulation of correct development	L Actipol Mo	Supplementing the high demand for molybdenum. The application prevents the common whiptail
		Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and prevents wilting of the youngest leaves
		ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of the youngest leaves
		AminoMag Activ	Amino acids have biostimulating action on the plants. Supply of a big dose of magnesium and sulfur improves the efficiency of photosynthesis and increases utilization of nitrogen
Beginning of rose forming	Intensification of development	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and ensures correct development of roses
		ActiCal	Supply of calcium ensures correct development of roses and improves selectiveness of uptake of other ions
Growth and development of roses	Stimulation of growth of roses and improvement of its utility parameters	FoliarActiv Potassium + 6-20-36+micro	High nitrogen content improves plant productivity and the remaining macro- and micronutrients improve metabolism
		Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and ensures correct development of roses
		Activ ProVigor Vegetables	High magnesium and sulfur content activates photosynthesis and intensifies utilization of nitrogen. Sulfur strengthens plants and improves their resistance to diseases
		ActiCal	Supply of calcium ensures correct development of roses
From planting to harvest	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements prevents deficits and improves general functioning of plants
		Magnesium Sulfate Monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu, L Actipol Mo	Supply of microelements prevents deficits and improves general functioning of plants

carrot

parsley



Mineral nutrition
program for carrot and
parsnip with ARKOP
fertilizers

Development phase



contains
chelates

FoliarActiv Phosphorus + 10-52-10+micro	1-2 applications - dose 1-3 kg /ha			
ActiCal		Application - dose 1-2 l/ha		1-2 applications - dose 1-2 l/ha
FoliarActiv Balance micro with boron		Application - dose 2-3 kg/ha		
Activ ProAmin Vegetables			Application - dose 1-2 l/ha	1-2 applications - dose 2 -4 l /ha
ActiBor 150 or Super ActiBor 21			Application - dose 0,5-1 l/ha, 0,5-1 kg/ha	
AminoMag Activ		Application - dose 2-3 kg /ha		
FoliarActiv Nitrogen + 33-10-10+micro			Application - dose 2-3 kg/ha	
Activ ProVigor Vegetables				Application - dose 1-1,5 l/ha
FoliarActiv Potas + 6-20-36+micro				Application - dose 2-3 kg/ha
FlorActiv	From germination to harvest - application - dose 0,2-0,3 kg/ha			
Magnesium Sulfate Monohydrate MgO 23%	From germination to harvest - application - dose 2-4 kg/ha			
Actipol Fe, Mn, Zn, Cu L-Actipol Fe, Mn, Zn, Cu, Mo	From germination to harvest - application - dose 0,5-1 kg/ha (l/ha)			



2-4 leaves



4-10 leaves



Beginning of root thickening



Intensive root thickening

purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
2-4 leaves	Stimulation of root system development	FoliarActiv Phosphorus 10-52-10+micro	The phosphorus activates development of the root system. Potassium and microelements increase the plant's resistance to stress factors
4-10 leaves	Stimulation of correct development	ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of the youngest leaves
		FoliarActiv Balance micro with boron	Supply of a balanced combination of macro- and micronutrients stimulates the vegetative development of plants
		AminoMag Activ	Amino acids have biostimulating action on the plants. Supply of a big dose of magnesium and sulfur improves the efficiency of photosynthesis and increases utilization of nitrogen
Beginning of root thickening	Stimulation of correct development	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		Actibor 150 or Super Actibor 21	The application ensures correct development of roots
		FoliarActiv Nitrogen + 33-10-10+micro	High nitrogen content improves plant productivity and the remaining macro- and micronutrients improve metabolism
Intensive root thickening	Stimulation of correct development	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		ActiCal	Supply of calcium improves the flexibility of the cell wall thus increasing the resistance of roots to cracking
		Activ ProVigor Vegetables	High magnesium and sulfur content activates photosynthesis and intensifies utilization of nitrogen. Sulfur strengthens plants and increases their resistance to diseases
		FoliarActiv Potassium + 6-20-36+micro	Supplemented potassium improves firmness and the key quality parameters of roots
From germination to harvest	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements prevents deficits and improves general functioning of plants
		Magnesium Sulfate Monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu, L Actipol Mo	Supply of microelements prevents deficits and improves general functioning of plants

ARKOP
Mineral nutrition
program for beetroots
with ARKOP fertilizers

Development phase



FoliarActiv Phosphorus + 10-52-10+micro	1-2 applications - dose 1-3 kg /ha			
ActiCal		Application - dose 1-2 l/ha		Application - dose 1-2 l/ha
FoliarActiv Balance micro with boron				
Activ ProAmin Vegetables			Application - dose 1-2 l /ha	
ActiBor 150 or Super ActiBor 21		Application - dose 0,5-1 l/ha, 0,5-1 kg/ha	Application - dose 0,5-1 l/ha, 0,5-1 kg/ha	1-2 applications - dose 0,5-1 l/ha, 0,5-1 kg/ha
AminoMag Activ		Application - dose 2-3 kg /ha		
Activ ProVigor Vegetables			Application - Dose 1-1,5 l/ha	Application - dose 2-4 l/ha
FoliarActiv Potassium + 6-20-36+micro				Application - dose 2-3 kg/ha
FlorActiv	From germination to harvest - application - dose 0,2-0,3 kg/ha			
Magnesium Sulfate Monohydrate MgO 23%	From germination to harvest - application - dose 2-4 kg/ha			
Actipol Fe, Mn, Zn, Cu L-Actipol Fe, Mn, Zn, Cu, Mo	From germination to harvest - application - dose 0,5-1 kg/ha (l/ha)			



2-4 leaves



Intensive development of the
leave rosette



Beginning of root thickening



Intensive root thickening

purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
2-4 leaves	Stimulation of root system development	FoliarActiv Phosphorus 10-52-10+micro	The phosphorus activates development of the root system. Potassium and microelements increase the plant's resistance to stress factors
Intensive development of the leave rosette	Stimulation of correct development	Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and prevents wilting of the youngest leaves
		ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of the youngest leaves
		AminoMag Activ	Amino acids have biostimulating action on the plants. Supply of a big dose of magnesium and sulfur improves the efficiency of photosynthesis and increases utilization of nitrogen
Beginning of root thickening	Stimulation of correct development	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and ensures correct development of roots
		Activ ProVigor Vegetables	High magnesium and sulfur content activates photosynthesis, reducing the risk of accumulation of nitrates. Sulfur strengthens plants and increases their resistance to diseases
Intensive root thickening	Stimulation of correct development	Activ ProVigor Vegetables	High magnesium and sulfur content activates photosynthesis, reducing the risk of accumulation of nitrates. Sulfur strengthens plants and increases their resistance to diseases
		ActiCal	Supply of calcium improves the flexibility of the cell wall thus increasing the resistance of roots to cracking
		Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and ensures correct development of roots
		FoliarActiv Potassium + 6-20-36+micro	Supplemented potassium improves firmness and the key quality parameters of roots
From germination to harvest	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements prevents deficits and improves general functioning of plants
		Magnesium Sulfate Monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu, L Actipol Mo	Supply of microelements prevents deficits and improves general functioning of plants

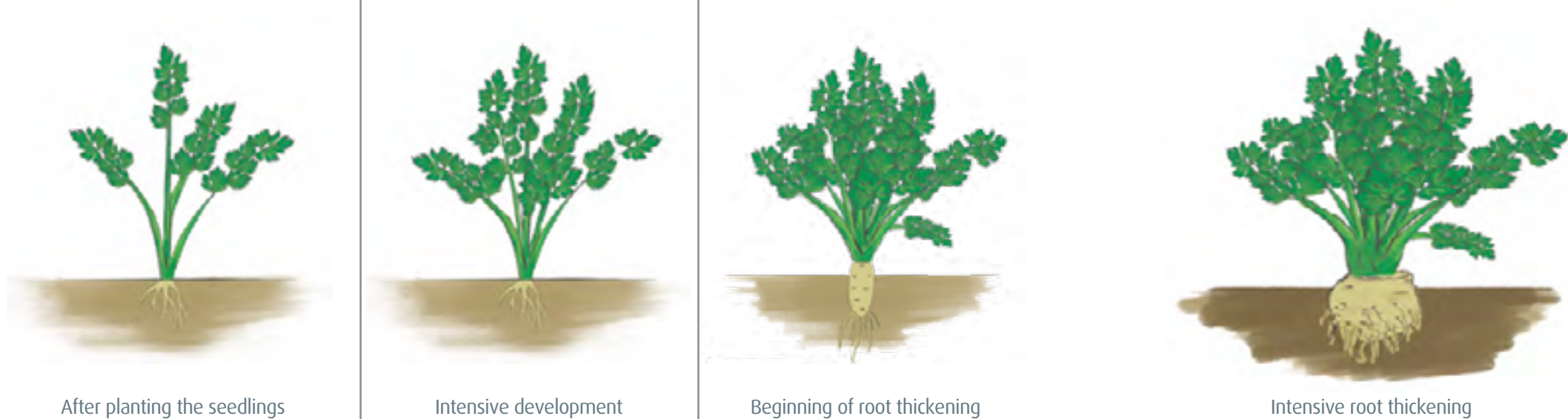


Mineral nutrition
program for celeriac
with ARKOP fertilizers

Development phase



FoliarActiv Phosphorus + 10-52-10+micro	1-2 applications - dose 1-3 kg /ha			
ActiCal		Application - dose 1-2 l/ha	Application - dose 1-2 l/ha	Application - dose 1-2 l/ha
FoliarActiv Balance micro with boron				
Activ ProAmin Vegetables			Application - dose 1-2 l/ha	Application - dose 1-3 l/ha
ActiBor 150 or Super ActiBor 21		Application - dose 0,5-1 l/ha, 0,5-1 kg/ha	Application - dose 0,5-1 l/ha, 0,5-1 kg/ha	1-2 applications - dose 0,5-1 l/ha, 0,5-1 kg/ha
AminoMag Activ		Application - dose 2-3 kg /ha		
FoliarActiv Azot + 33-10-10+micro				
FoliarActiv Potassium + 6-20-36+micro				Application - dose 2-3 kg/ha
FlorActiv				From planting to harvest - application - dose 0,2-0,3 kg/ha
Magnesium Sulfate Monohydrate MgO 23%				From planting to harvest - application - dose 2-4 kg/ha
Actipol Fe, Mn, Zn, Cu				From planting to harvest - application - dose 0,5-1 kg/ha (l/ha)
L-Actipol Fe, Mn, Zn, Cu, Mo				



purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
After planting the seedlings	Stimulation of root system development	FoliarActiv Phosphorus 10-52-10+micro	The phosphorus activates regeneration and development of the root system. Potassium and microelements increase the plant's resistance to stress factors
Intensive development of the leave rosette	Stimulation of correct development	Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and prevents wilting of the youngest leaves
		ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of the youngest leaves
		AminoMag Activ	Amino acids have biostimulating action on the plants. Supply of a big dose of magnesium and sulfur improves the efficiency of photosynthesis and increases utilization of nitrogen
Beginning of root thickening	Stimulation of correct development	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and ensures correct development of roots
		ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of the youngest leaves
Intensive root thickening	Stimulation of correct development	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		ActiCal	Supply of calcium improves the flexibility of the cell wall thus improving mechanical resistance of roots
		Actibor 150 or Super Actibor 21	The application satisfies the high demand for boron and ensures correct development of roots
		FoliarActiv Potassium + 6-20-36+micro	Supplemented potassium improves firmness and the key quality parameters of roots
From planting to harvest	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements prevents deficits and improves general functioning of plants
		Magnesium Sulfate Monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu, L Actipol Mo	Supply of microelements prevents deficits and improves general functioning of plants

ARKOP
Mineral nutrition
program for onion
with ARKOP fertilizers

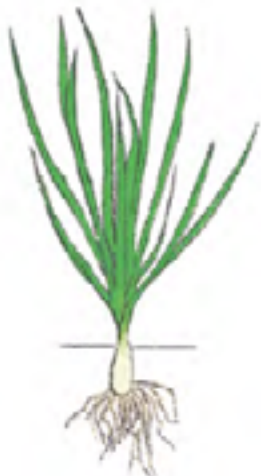
Development phase



FoliarActiv Phosphorus 10-52-10+micro	1-2 applications - dose 1-3 kg /ha			
ActiCal		Application - dose 1-2 l/ha		Application - dose 1-2 l/ha
Activ ProAmin Vegetables			Application - dose 1-3 l/ha	
FoliarActiv Nitrogen + 33-10-10+micro		Application - dose 2-3 kg/ha		
Activ ProVigor Vegetables		Application - dose 2-4 l/ha	Application - dose 1-2 l/ha	Application - dose 3-6 l/ha
FoliarActiv Potassium + 6-20-36+micro				Application - dose 2-4 kg/ha
FoliarActiv Phosphorus-Potassium + 9-40-26+micro			Application - dose 2-4 kg/ha	
FlorActiv	From germination to harvest - application - dose 0,2-0,3 kg/ha			
Magnesium Sulfate Monohydrate MgO 23%	From germination to harvest - application - dose 2-4 kg/ha			
Actipol Fe, Mn, Zn, Cu	From germination to harvest - application - dose 0,5-1 kg/ha (l/ha)			
L-Actipol Fe, Mn, Zn, Cu, Mo				



4-6 leaves



Intensive vegetative growth



Beginning of onion setting



Intensive onion setting

purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
4-6 leaves	Stimulation of root system development	FoliarActiv Phosphorus 10-52-10+micro	The phosphorus activates development of the root system. Potassium and microelements increase the plant's resistance to stress factors
Intensive vegetative growth	Stimulation of correct development	Activ ProVigor Vegetables	The application satisfies the high demand for sulfur and magnesium, activates photosynthesis and intensifies utilization of nitrogen. Sulfur strengthens plants and increases resistance to diseases
		FoliarActiv Nitrogen + 33-10-10+micro	High nitrogen content improves plant productivity and the remaining macro- and micronutrients improve metabolism
		ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of the youngest leaves
Beginning of onion setting	Stimulation of correct development	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		Activ ProVigor Vegetables	The application satisfies the high demand for sulfur and magnesium, activates photosynthesis and intensifies utilization of nitrogen. Sulfur strengthens plants and increases their resistance to diseases
		FoliarActiv Phosphorus-Potassium + 9-40-26+micro	Supplemented phosphorus and potassium improves onion setting. Also the plant's resistance to stress factors improves
Intensive onion setting	Stimulation of correct development	Activ ProVigor Vegetables	The application satisfies the high demand for sulfur and magnesium, activates photosynthesis and intensifies utilization of nitrogen. Sulfur strengthens plants and increases their resistance to diseases
		ActiCal	Supply of calcium improves the flexibility of the cell wall thus increasing the resistance of the onions to cracking and improves storability
		FoliarActiv Potassium + 6-20-36+micro	Supplemented potassium improves firmness and the key quality parameters of onions, including storability
From germination to harvest	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements prevents deficits and improves general functioning of plants
		Magnesium Sulfate Monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu, L Actipol Mo	Supply of microelements prevents deficits and improves general functioning of plants



Mineral nutrition program for beans and peans with ARKOP fertilizers

Development phase

contains
chelates

FoliarActiv Phosphorus + 10-52-10+micro



ActiCal



FoliarActiv Balance micro with boron



Activ ProAmin Vegetables



ActiBor 150 or | Super ActiBor 21

AminoMag Activ



FoliarActiv Nitrogen + 33-10-10+micro



Activ ProVigor Vegetables



FoliarActiv Phosphorus-Potassium + 9-40-26+micro



FlorActiv



Magnesium Sulfate Monohydrate MgO 23%

Actipol Fe, Mn, Zn, Cu



L-Actipol Fe, Mn, Zn, Cu, Mo



After germination

1-2 applications - dose 1-3 kg/ha



Intensive vegetative growth

Application - dose 1-2 l/ha

Application - dose 2-3 kg /ha



Flowering and pod setting

Application - dose 2-4 kg/ha

Application - dose 1-3 l/ha

Application - dose 0,5-1 kg/ha 0,5-1 l/ha

Application - dose 2-3 kg/ha



Pod maturing

Application - dose 1-2 l/ha

Application - dose 1-2 l/ha

Application - dose 2-4 kg/ha

From germination to harvest - application - dose 0,2-0,3 kg/ha

From germination to harvest - application - dose 2-4 kg/ha

From germination to harvest - application - dose 0,5-1 kg/ha (l/ha)

purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
After germination	Stimulation of root system development	FoliarActiv Phosphorus 10-52-10+micro	The phosphorus activates development of the root system. Potassium and microelements increase the plant's resistance to stress factors
Intensive vegetative growth	Stimulation of correct development	AminoMag Activ	Amino acids have biostimulating action on the plants. Supply of a big dose of magnesium and sulfur improves the efficiency of photosynthesis and improves biosynthesis of nitrogen
		FoliarActiv Balance micro with boron	Supply of a balanced combination of macro- and micronutrients prevents deficits and stimulates the vegetative development of plants
		ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of the youngest leaves
Flowering and pod setting	Stimulation of correct development	Actibor 150 or Super Actibor 21	Supply of boron stimulates flowering an improves seed setting especially in unfavorable weather conditions
		FoliarActiv Phosphorus + 10-52-10+micro	Supplemented phosphorus stimulates correct pod formation an seed setting
		Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
Pod maturing	Stimulation of correct development	Activ ProVigor Vegetables	High magnesium, sulfur and microelement content activates photosynthesis and intensifies biosynthesis of protein.
		ActiCal	The calcium supplied ensures correct development of pods and seeds
		FoliarActiv Phosphorus Potassium + 9-40-26+micro	Supplemented phosphorus an potassium guarantees correct pod filling and seed development
		Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
From germination to harvest	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements prevents deficits and improves general functioning of plants
		Magnesium Sulfate Monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu, L Actipol Mo	Supply of microelements prevents deficits and improves general functioning of plants



Mineral program for lettuce with ARKOP fertilizers

Development phase



FoliarActiv Phosphorus + 10-52-10+micro



ActiCal



Activ ProAmin Vegetables



AminoMag Activ



Activ ProVigor Vegetables



FlorActiv



Magnesium Sulfate Monohydrate MgO 23%

Actipol Fe, Mn, Zn, Cu



L-Actipol Fe, Mn, Zn, Cu, Mo



After planting the seedlings



Intensive development of the leave rosette



Beginning of head setting



Growth of heads

Application - dose 1-3 kg/ha

Application - dose 1-2 l/ha

Application - dose 1-2 l/ha

Application - dose 1-2 l/ha

Application - dose 1-2 l/ha

Application - dose 1-2 l/ha

Application - dose 2-3 kg/ha

Application - dose 1-1,5 l/ha

From planting to harvest - application - dose 0,2-0,3 kg/ha

From planting to harvest - application - dose 2-4 kg/ha

From planting to harvest - application - dose 0,5-1 kg/ha (l/ha)

purposes and effects of the proposed treatment

Development phase	Purpose of application	Proposed fertilizer	Effects
After planting the seedlings	Stimulation of root system development	FoliarActiv Phosphorus 10-52-10+micro	The phosphorus activates development of the root system. Potassium and microelements increase the plant's resistance to stress factors
Intensive development of the leave rosette	Stimulation of correct development	AminoMag Activ	Amino acids have biostimulating action on the plants. Supply of a big dose of magnesium and sulfur improves the efficiency of photosynthesis and increases utilization of nitrogen
		ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of the youngest leaves
Beginning of head setting	Stimulation of correct development	Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
		ActiCal	Supply of calcium improves the flexibility of the cell wall, improves selectiveness of nutrient uptake and prevents wilting of the youngest leaves
Growth of heads	Stimulation of correct development	Activ ProVigor Vegetables	High magnesium and sulfur content activates photosynthesis, reducing the risk of accumulation of nitrates. Sulfur strengthens plants and increases their resistance to diseases
		ActiCal	Supply of calcium prevents rusetting and tip burn
		Activ ProAmin Vegetables	The amino acid fertilizer has biostimulating action on the plants and facilitates their basic life processes
From planting to harvest	Prevention or replenishment of deficits	FlorActiv	Supply of all necessary trace elements prevents deficits and improves general functioning of plants
		Magnesium Sulfate Monohydrate	Supply of magnesium and sulfur prevents deficits and improves general functioning of plants
		Actipol EDTA Fe, Zn, Mn, Cu, L Actipol Mo	Supply of microelements prevents deficits and improves general functioning of plants

Comments to the extra-root vegetables nutrition program:

- Extra-root nutrition to be applied not more frequently than every 7-10 days
- Apply the recommended dose of the fertilizer in the form of a spray, evenly covering the entire surface of the plants, especially the bottom side of the leaves, with the working liquid
- The recommended quantity of the working liquid is 400-600 liters per ha
- Concentration of the working liquid should be adjusted to development phase and actual agrotechnical conditions, in such way, to be sure that the mixture dose not damage plant by the occurrence of phytotoxicity
- Apply at a temperature lower than 25°C and relative air humidity of 60-75%, avoiding full sun exposure
- Temperature of working liquid should not be lower than 12 °C
- When mixing the fertilizers with other agrochemicals, perform a mixing test and check whether the mixture does not have phytotoxic properties
- In the case of mixing of different agrochemicals do not exceed the concentrations that are physiologically safe for the given mixture and the plant’s development phase
- The number of applications and fertilizer doses in extra-root nutrition should be selected from the standpoint of current agrotechnical requirements, taking into account the richness of the soil and applied soil fertilization

***THIS MINERAL PROGRAM WAS PREPARED FOR VEGETABLES CULTIVATED IN CONTINENTAL CLIMATE**

***FERTILIZERS PRESENTED IN THIS PROGRAM ARE SUITABLE FOR ALL KIND OF VEGETABLES CULTIVATED IN VARIED CLIMATE AND SOLIS.**



We enhance nature



Recommended vegetables fertilizers



Magnesium Sulfate Monohydrate MgO 23%

Actipol Fe, Mn, Zn, Cu, Co

L-Actipol Fe, Mn, Zn, Cu, Mo

ActiCal

ActiBor 150 or | **Super ActiBor** 21

FoliarActiv Phosphorus + 10-52-10+micro

FoliarActiv Nitrogen + 33-10-10+micro

FoliarActiv Balance 20-20-20+micro

FoliarActiv Phosphorus-Potassium + 9-40-26+micro

FoliarActiv Potassium-Phosphorus + 6-20-36+micro

Activ ProVigor Vegetables

Activ ProAmin Vegetables

AminoMag Activ

FlorActiv

We are constantly improving both the quality of our products and the quality of cooperation with our customers. We satisfy the needs of all our customers, including the most demanding ones, and we adhere to the highest European standards of customer relations. We are a member of the Association of Polish Exporters.

We apply and constantly develop our integrated food quality and safety management system ISO 22000 (HACCP) and ISO 9001. As a confirmation of adherence to the most stringent requirements in this area, we have obtained the integrated management system certificate – Food Quality and Safety – HACCP - PN-EN ISO 9001:2009 and PN-EN ISO 22000-2006. We also have the European quality system certificate for feed additives and premixes FAMI-QS. Currently we work with growers from across the world.

We enhance nature

