

#### **ABOUT US**

**VIVA Fertilis** (formerly AGROCONSULT LT), started back in 2011

2021 Started production of liquid fertilizers, biostimulants, water correctors, etc.

# PRODUCTION CAPACITY

25 000 L/day 2500 000 L/yearly

+50 unique fertilizer & biostimulant formulas

AGROCONSULT LT could make fertilizers & biostimulants according to individual request.

#### The order in which fertilisers and pesticides are applied to the sprayer:

- 1. Water correctors (pH 6-7);
- 2. Dissolvable products (pesticides and/or bulk fertilisers);
- 3. Acidic products, in ascending order of pH up to 7;
- 4. Suspensions;
- 5. Organic products;
- 6. Pesticides (suspensions, emulsions, solutions);
- 7. Alkaline products (pH>7, boron, potassium, silicon);
- 8. Bacterial products;
- 9. Surfactants.

#### LIQUID FERTILIZERS BIOSTIMULANTS

- · VIVAGEL PK 42-8 +ME
- VIVAGEL NK 4.3-43 +AA
- VIVAGEL NPK 4-44-4 +ME
- VIVAGEL 5-70-5
- VIVAGEL NPK 13-13-13
- EFFECT NS 20-75
- VIVAGEL K 40 +AA

- PLANT STIM
  - ACTIV KELP
  - AMINO +300
  - AMINO +150
  - HUMIEXTRACT 500
  - VIVAEXTRACT 360
  - HUMIEFFECT 13-2

#### MICRO ELEMENTS

- EFFECT Mo
- EFFECT Zn
- EFFECT Ca/Mg
- EFFECT Cu
- EFFECT B/Mo +AA
- EFFECT B +AA
- EFFECT B +Mo
- EFFECT B
- DRON PATRON ALFA S

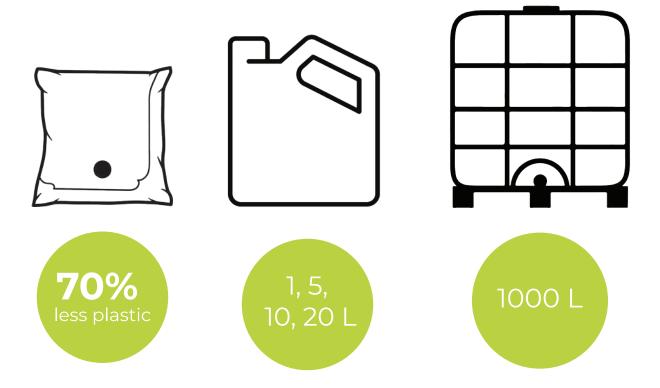
#### **BIOLOGICAL PRODUCTS**

- INO WHEAT
- · INO BRASSICA
- INO TUBER
- BACTOMIX DESTRUCTOR
- BACTOMIX BACTODOC
- BACTOMIX STAR SPECTRUM
- BACTOMIX BACTO POWER

#### **WATER CORRECTORS**

- PH FOCUS
- IZZI CLEANER
- ANTIFUMA

#### **PACKAGE**



### LIQUID FERTILIZERS

- VIVAGEL PK 42-8 +ME
- VIVAGEL KS 37-65
- VIVAGEL NK 4.3-43 +AA
- VIVAGEL NPK 4-44-4 +ME
- VIVAGEL 5-70-5
- VIVAGEL NK 13-13-13
- EFFECT KSi 9-10
- FFFFCT NS 20-75
- VIVAGEL K 40 +AA



# VIVAGEL PK 42-8 +ME

Due to the very high content of phosphorus in combination with potassium, this fertilizer effectively supports the development of the root system, increases the growth of plant biomass, and improves their winter hardiness. Especially recommended for use in the early periods of vegetative growth (during the development of the root system).

- · Balanced composition
- Improves root and shoot growth
- · Prevents the development and spread of fungal diseases
- · Improvement in quantity and quality of the yield

Composition	w/w % (g/l)
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	30,0 (420)
Potassium (K₂O) soluble	5,7 (80)
Zinc (Zn)	1,7 (25)
Manganese (Mn)	1,7 (25)
L-Proline	0,1 (1,5)





5 L, 10 L, 20 L, 1000 L





Irrigation system 2-4 l/ha





## VIVAGEL KS 37-65

Potassium (K) plays an important role in many physiological processes, is vital for plant growth, yield, quality, and stress resistance. Sulfur (S) is a key element for plant growth and development, and is an important component of enzymes and amino acids, involved in photosynthesis and protein formation.

- · Increases root growth and improves drought resistance
- · Activates many enzyme systems
- Reduces water loss and witing
- · Helps in photosynthesis and food formation
- · Reduces respiration, preventing energy losses
- Increases protein content of plants
- · Helps retard crop diseases
- Sulfur deficiencies corrector

Composition	w/w % (g/l)
Potassium (K₂O)	26,4 (370)
Sulfur (SO₃)	46,4 (650)



5 L, 10 L, 20 L, 1000 L











# **VIVAGEL NK 4,3-43 +AA**

Product designed to optimize potassium absorption in leaves for active plant growth, greater yield formation and higher yield quality—apparent stimulatory effect in increasing resistance to drought and environmental stress.

- · Rapid uptake through the leaf
- · The promoter of more uniform growth
- · Generates fewer imbalances
- Increases quantity and quality of proteins, helping to convert them into carbohydrates, proteins, and oils
- It improves the chlorophyll content and participates in the synthesis and function of various enzymes and vitamins

Composition	w/w % (g/l)
Total nitrogen (N)	2,9 (43)
Potassium (K₂O) soluble	28,9 (430)
L-Proline	0,13 (2g) Prl





5 L, 10 L, 20 L, 1000 L











### VIVAGEL NPK 4-44-4 +ME

Due to the very high content of phosphorus in combination with potassium, this fertilizer effectively supports the development of the root system, increases the growth of plant biomass, and improves their resistance to cold season. It is especially recommended to use in the early periods of vegetative growth (during the development of the root system).

- · Strengthens the roots and stimulates vital processes
- · Stimulates photosynthesis and metabolic processes
- · Helps the plant to absorb micro elements

Composition	w/w % (g/l)
Total nitrogen (N)	2,86 (40)
Amide nitrogen (NH <sub>2</sub> -N)	2,86 (40)
Potassium (K <sub>2</sub> O) soluble in water	2,86 (40)
Phosphorus (P <sub>2</sub> O <sub>5</sub> ) soluble in water	31,7 (440)
Zinc (Zn)	1,8 (25)
Manganese (Mn)	1,8 (25)
L-Proline amino acid	0,11 (1,5)







Irrigation system 2-4 I/ha





### **VIVAGEL NPK 5-70-5**

Thanks to its very high phosphorus (P2O5) content, together with potassium (K<sub>2</sub>O<sub>5</sub>) and nitrogen (N), this fertilizer effectively supports the development of the root system, increases the biomass growth of the plants, and improves their winter hardiness. It is particularly recommended for the use in the early stages of vegetative growth (during the development of the root system).

- Strengthens the roots and stimulates vital processes
- Stimulates metabolic processes
- Increases biomass growth of the plants
- Improves winter hardiness

Composition	w/w % (g/l)
Total nitrogen (N)	3,1 (50)
Amine nitrogen (N-NH <sub>2</sub> )	3,1 (50)
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	43,8 (700)
Potassium (K <sub>2</sub> O)	3,1 (50)









Irrigation system 2-4 I/ha



### VIVAGEL NPK 13-13-13

Fertilizer, specially formulated to provide a balanced contribution of essential macronutrients during all stages of the vegetable cycle of the plant, spraying through the leaves or on the soil, irrigation systems. Nitrogen, phosphorus and potassium are in equal parts, so this fertilizer is easy to apply in all situations. L-Proline amino acid improves permeability of nutrients, increases resistance to adverse environmental effects (drought, cold).

- · Stimulates the growth
- · Promotes the flowering of the plant and growth of the plant roots
- Encourages the formation of a higher yield and higher quality yield

Composition	w/w % (g/l)
Total nitrogen (N)	10 (130)
Potassium (K <sub>2</sub> O) soluble in water	10 (130)
Phosphorus (P <sub>2</sub> O <sub>5</sub> ) soluble in water	10 (130)
L-Proline amino acid	0,16 (2g) Prl







Irrigation system 3-5 I/ha





#### EFFECT KSi 9-10

A silicon and potassium product supplemented with vegetable amino acids that improve the absorption and distribution of these two nutrients in plants. It increases plant yield and production quality, reduces the impact of UV rays on the plant, strengthens plant tissues, making plants more resistant to lodging, increases the area of plant leaves, and therefore improves photosynthesis.

- Stimulates root system development, plant growth and development.
- Gives plants mechanical strength, strengthens the walls of epidermal cells and prevents lodging.
- Increases plant resistance to physiological diseases and relieves stress, strengthens the protective functions of plants.
- Participates in the process of supporting the internal reserve of water, increasing the resistance of plants to drought and extremely high temperatures.
- Promotes a more complete assimilation of nutrients from the soil and fertilizers.

Composition	w/w % (g/)
Potassium (K₂0) soluble	6,8 (92)
Silicon (SiO <sub>2</sub> )	7,4 (100)
Free amino acids	3,0 (40)



5 L, 10 L, 20 L, 1000 L







Irrigation system 0,5-2 I/ha



# **EFFECT NS 20-75**

Sulfur is a key element for plant growth and development being an important constituent of enzymes and amino acids involved in photosynthesis and protein formation. Crops will respond immediately to the applications and they will be rapidly absorbed by the plant.

- · Sulfur deficiencies corrector
- · Increased content of amino acids and proteins
- Fungicide action
- · Improves availability of iron and manganese

Composition	w/w % (g/l)
Nitrogen (N)	15,2 (200)
Amine nitrogen (N-NH <sub>2</sub> )	4,6 (61)
Ammonium nitrogen (NH4-N)	10,6 (139)
Sulfur (SO <sub>3</sub> )	56,8 (750)



5 L, 10 L, 20 L, 1000 L











#### VIVAGEL K 40 +AA

Good potassium nutrition is vital to consistently improve crop productivity. Product designed to optimize potassium absorption for active plant growth, greater yield formation and increasing resistance to drought and environmental stress. Special combination of high level of potassium and free amino acids increases the biological activity of plant, stimulates photosynthesis and prevents crops from lodging.

- Prevents crops from lodging by strengthening the walls of epidermal cells
- Stimulates photosynthesis process, increasing quantity and quality of proteins helping to convert them into carbohydrates, proteins and oils
- Increases resistance to abiotic stress
- Suitable for all types of plants

Composition	w/w % (g/l)
Potassium (K₂O) soluble in water	27,0 (400 g/l)
Free amino acids	2.7 (40 g/l)



5 L, 10 L, 20 L, 1000 L







Irrigation system
2-3 I/ha



# MICRO ELEMENTS

- ALFA S
- FFFFCT Mo
- EFFECT Zn
- EFFECT Mr
- EFFECT Ca/Mg
- FFFFCT Cu
- EFFECT B/Mo +AA
- FFFFCT B +AA
- FFFFCT B +Mo
- EFFECT B
- · DRON PATRON ALFA S



#### **ALFA S**



Product is a made from manganese, zinc, and copper which are complexed with amino acids. The unique formulation of naturally chelated microelements and amino acids helps to prevent micronutrient deficiencies stimulating simultaneously the metabolism of the plant. Contains essential nutrients for the formation of chlorophyll, enzymes, and proteins.

- Improves plant growth, increases flowering and fruiting
- Stimulates plant growth
- Helps to restore the plant in stressful situations
- Increases plant productivity and increases yields
- Efficient nutrient uptake
- A long-lasting effect
- Resistance to disease and pest

Composition	w/w % (g/l)
Manganese (Mn)	6,2 (87)
Zinc (Zn)	4,0 (56)
Copper (Cu)	1,9 (27)
Free amino acids	2,7 (38)
L-Proline	0,14 (2)
Sulfur (SO₃)	17,7 (242)





5 L, 10 L, 20 L, 1000 L







Irrigation system 0,7-1,5 I/ha



## EFFECT Mo

Molybdenum is an essential element involved in the nitrate reductase process but also in the synthesis of amino acids. It also improves the activity of nitrogenfixing bacteria and plants use molybdenum to transform inorganic phosphorus into organic phosphorus.

- · Very fast absorbed
- · Stimulates activity of microorganisms in the soil
- Increases quantity of proteins in plants
- Enforces synthesis and increases starchiness

Composition	w/w % (g/l)
Molybdenum (Mo)	14,9 (200)
L-Proline	0,07 (1)







Irrigation system
1-3 I/ha





## EFFECT Zn

Liquid micronutrient fertilizer with an easily absorbable concentration of zinc in a complex with amino acids. A product for the prevention and elimination of zink deficiency.

- Promotes protein synthesis
- Improves heat and frost resistance
- · Increases yield quantity and quality
- Increases resistance to disease
- · Stimulates plant growth and development

Composition	w/w % (g/l)
Free amino acids	4,0 (50)
Sulphur (SO <sub>3</sub> )	9,9 (125)
Zinc (Zn)	7,9 (100)











# EFFECT Mn

Liquid micronutrient fertilizer with an easily absorbable concentration of manganese in a complex with amino acids. A product for the prevention and elimination of manganese deficiency.

- · Responsible for nitrogen assimilation
- · Participates in respiration and photosynthesis
- · Activates the accumulation of sugars, proteins and vitamins

Composition	w/w % (g/l)
Free amino acids	3,9 (50)
Sulphur (SO <sub>3</sub> )	13,0 (165)
Manganese (Mn)	7,9 (100)







Irrigation system 1-2 I/ha





# EFFECT Ca/Mg

Liquid micronutrient fertilizer with an easily absorbable concentration of calcium and magnesium in a complex with amino acids. A product for the prevention and elimination of calcium and magnesium deficiency.

- Increases plant productivity
- · Increases resistance to diseases and adverse weather conditions
- · Contributes to the recovery of plants after stress
- Increases the quality characteristics of the crop
- Promotes increased yields
- · Strengthens the structure of the cell wall, improves transportability
- Increases plant resistance to rot (physiological origin)
- Activates photosynthesis, accelerates nitrate reduction and protein synthesis
- Promotes root system development and the formation of new shoots
- · Increases pollen viability
- Stimulates carbohydrate metabolism in the plant, i.e., participates in their transfer

Composition	w/w % (g/l)
Total Nitrogen (N)	9,0 (130)
Magnesium oxide (MgO)	3,0 (40)
Calcium oxide (CaO)	12,0 (175)
L-Proline	0,135 (2,0)







∬ 5 L, 10 L, 20 L, 1000 L





Irrigation system 1-2 I/ha





# EFFECT Cu

Liquid micronutrient fertilizer with an easily absorbable concentration of copper in a complex with amino acids. A product for the prevention and elimination of copper deficiency.

- · Stimulates flowering and fruit formation
- · Adjusts cells respiration processes
- · Activates plant immune system
- · Increases productivity

Composition	w/w % (g/l)
Free amino acids	12,1 (150)
Total nitrogen (N)	5,2 (64)
Copper (Cu)	6,5 (80)













# EFFECT B/Mo +AA

Liquid micronutrient fertilizer with an easily absorbable concentration of boron and molybdenum in a complex with amino acids. A product for the prevention and elimination of boron and molybdenum deficiency.

- · High content of B and Mo
- Promotes enzymes activity
- Promotes yield quality
- · Improves protein and carbohydrate metabolism

Composition	w/w % (g/l)
Free amino acids	3,1 (40)
Total nitrogen (N)	4,0 (51)
Boron (B)	9,4 (120)
Molybdenum (Mo)	0,4 (5,0)













## EFFECT B +AA

Boron is composed of a complex of ethanolamine and amino acids. It comes as a highly concentrated liquid solution. It is a boron deficiency corrector.

- · Stimulates flowering and fruit set formation
- · Improves proteins and carbohydrates metabolism
- Helps synthesize sucrose and starch
- · Involved in the metabolism of auxins

Composition	w/w % (g/l)
Free amino acids	3,1 (40)
Total nitrogen (N)	4,0 (51)
Boron (B)	9,4 (120)













# **EFFECT** B +Mo

Liquid concentrated and easily absorbable by plants boron fertilizers with molybdenum. Product is designed to compensate for boron and molybdenum deficiency in critical growth stages and under adverse environmental conditions. Intended for plants particularly sensitive to boron deficiency: rapeseed, sugar and fodder beets, potatoes, corn, legumes, garden and garden plants.

- Participates in root development and shoot growth
- Assists in the transport of carbohydrates from leaves to roots and reproductive organs
- Increases pollen viability, increases flowering
- Protects crops from core root
- Aids in the process of symbiotic nitrogen fixation by Rhizobia bacteria in the roots of leguminous plants

Composition	w/w % (g/l)
Total nitrogen (N)	4,7 (64)
Ammonium nitrogen (NH <sub>4</sub> -N)	4,7 (64)
Boron (B)	11,0 (150)
Molybdenum (Mo)	0,6 (7,5)







system





## EFFECT B

Liquid fertilizer with a high amount of boron easily absorbed by plants. Recommended for plants particularly sensitive to boron deficiency: rapeseed, sugar and fodder beets, potatoes, corn, legumes, garden and garden plants.

- · Promotes plant growth and development
- · Has strong effect in plant nutrition and growth process
- · Stimulates cell division and elongation
- Participates in root development and shoot growth

Composition	w/w % (g/l)
Boron (B)	11,0 (150)
Total nitrogen (N)	4,7 (64)
Amine nitrogen (N-NH <sub>2</sub> )	4,7 (64)













### **DRON PATRON ALFA S**

#### The product is intended for drone crop processing

Product is made from manganese, zinc and copper which are complexed with amino acids. The unique formulation of naturally chelated microelements and amino acids helps to prevent micronutrient deficiencies stimulating simultaneously the metabolism of the plant. Contains essential nutrients for the formation of chlorophyll, enzymes and proteins.

**ELIT LF** - product that reduces the surfce tension of the solution and particularly improves the dispersion of water droplets, reduces the amount of fine particles genrated during spraying, which significantly reduces spray drift.

- Improves plant growth, increases flowering and fruiting
- Stimulates plant growth
- Helps to restore the plant in stressful situations
- Increases plant productivity and increases yields
- Efficient nutrient uptake
- A long-lasting effect

**ALFA S** Density 1,40-1,43, pH 2,0-2,1

Composition	w/v %	w/w %	g/l
Manganese (Mn)	8,7	6,2	87
Zinc (Zn)	5,6	4,0	56
Copper (Cu)	2,7	1,9	27
Free amino acids	3,8	2,7	38
L-Proline	0,2	0,14	2
Sulphur (SO₃)	24,2	17,7	245

**ELIT LF** Density ~1,05, pH 6,70-6,80

Composition	w/v %
Polyether modified trisiloxane	20



5 L + 250ml









### BIOSTIMULANTS

- PLANT STIM
- ACTIV KELP
- ACTIV START
- AMINO +300
- AMINO +150
- HUMIEXTRACT 500
- VIVAEXTRACT 360
- HUMIEFFECT 13-2



#### **PLANT STIM**

Accumulates the effectiveness of the best biostimulants in a single product. This exclusive and innovative formula can regulate the hormonal balance in all the phenological stages of the crops, providing non-essential amino acids with an osmoregulatory and anti-stress effect.

- Stimulates the development of the root system
- Restores the root system after stress and mechanical damage
- Increases plant productivity and increases yields
- · Stimulates cell division and chlorophyll synthesis
- Strengthens the resistance of plants to stress
- Increases and improves crop quality

Composition	w/w % (g/l)
100% Ascophyllum nodosum extract	11,5 (130)
Alginic acid	2,1 (24)
Free amino acids	8,9 (100)
Fulvic acid	5,1 (58)
Total organic carbon	3,36 (38)
N-Acetyl-L-Cysteine	0,9 (10)
Vitamins B	0,009 (0,1)
Mannitol	0,09 (1)









#### **ACTIV KELP**

Is a product that combines in a balanced way the action of the Free amino acids, Ascophyllum Nodosum, and Fulvic acids, obtaining a complete biostimulant. Intensifies cell multiplication and increases the concentration of proline, a natural amino acid produced by plants to defend themselves against stressful situations.

- Promotes the synthesis of protein and natural growth substances
- Stimulation of the root growth
- Enhanced uptake of nutrients into both roots and leaves
- Resistance to disease and pest
- Precursor of auxins, which stimulate plant vegetative

Composition	w/w % (g/l)
100% Ascophyllum nodosum extract	11,5 (130)
Alginic acid	2,1 (24)
Free amino acids	8,9 (100)
Fulvic acid	5,1 (58)
Total organic carbon	3,36 (38)
Mannitol	0,09 (1)







#### **ACTIV START**

This is a liquid biostimulant designed for treating seeds. By using ACTIV START, the product will spread evenly across the entire surface of the seed. When the roots start to grow, the plant will quickly absorb the nutrients and energy from the product, leading to improved root development.

- Enhances seed germination energy and promotes more uniform germination
- · Develops a robust root system
- Supplies essential nutrients and energy to the seeds
- Enhances the overwintering of winter crops and encourages their growth in spring

Composition	w/w % (g/l)
Amino acids	8,3 (100)
Humic acids	5,3 (64)
Fulvic acids	8,2 (100)
Seaweed	4,9 (60)
Nitrogen (N)	4,1 (50)
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	4,1 (50)
Potassium (K₂O)	1,5 (18)
Total organic carbon	6,0 (72)
Brassinosteroid	0,16 (2)
Cytokinin	0,025 (0,3)







#### **AMINO +300**

Plants require more amino acids during times of stress to prevent nutritional deficiencies and promote growth. AMINO+300 is a high-quality amino acid supplement that contains increased levels of lysine, proline, and glutamine, which can enhance plant growth and resistance to unfavourable conditions.

- Improves vegetative development
- Increases resilience and ability to recover from stress
- Neutralizes the negative effects of herbicides on the crop
- Increases the effectiveness of fungicide treatments
- Increases the quantity and quality of the crop

Composition	w/w % (g/l)
Total nitrogen (N)	2,4 (28)
Organic nitrogen	2,4 (28)
Free amino acids	25,2 (300)
Fulvic acids	11,6 (162)
Total organic carbon	7,6 (107)







system





#### **AMINO +150**

In the case of any stress, the consumption of amino acids in plants increases. In these conditions, the plant requires the supplementary addition of amino acids to overcome its nutrition deficiency and resume its growth. Its biostimulant action leads to energy savings and facilitates the development of the plant in the stages of greatest vegetative and generative activity.

- · Improves plant growth, increases flowering and fruiting
- · Stimulates plant growth
- · Helps to restore the plant in stressful situations
- · Increases plant productivity and increases yields
- Efficient nutrient uptake
- · A long-lasting effect

Composition	w/w % (g/l)
Total nitrogen (N)	0,7 (10)
Organic nitrogen	0,7 (10)
Free amino acids	12,6 (150)
Fulvic acids	11,6 (162)
Total organic carbon	7,6 (107)



5 L, 10 L, 20 L, 1000 L







Irrigation system 1-2 **I/**ha



### HUMIEXTRACT 500

With its rich composition, it nourishes plants regularly and continuously. It stimulates plant enzymes and acts as a catalyst. Provides rapid and regular growth in plants. Promotes growth of the plant roots and makes it easier for plants to uptake the nutrients from soil. Viability of the microorganism in the soil increases.

- · Improves the soil structure
- · Help for the development and activity of microbial flora
- · Stimulate the rooting and development of the plants

Composition	w/w % (g/l)
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	1,5 (20)
Total humic extract	41,7 (500)
Humic acid	3,3 (40)
Fulvic acid	38,3 (460)
Total organic carbon	25 (295)







5 L, 10 L, 20 L, 1000 L







Irrigation system 4-8 **I**/ha



\* Dosage may vary on different plant seeds so please contact your supplier for further information.

# VIVAEXTRACT 360

It stimulates plant enzymes and acts as a catalyst. Provides rapid and regular growth in plants. Promotes growth of the plant roots and makes easier for plants to uptake the nutrients from soil.

- · Improves germination
- · Increases root development
- Higher yield
- · Increases the uptake of fertilizers

Composition	w/w % (g/l)
Potassium (K₂O) soluble	1,76 (22)
Total humic extract	28,8 (360)
Humic acid	3,2 (40)
Fulvic acid	25,6 (320)
Total organic carbon	16,88 (211)



5 L, 10 L, 20 L, 1000 L







Irrigation system 4-8 **I**/ha



\* Dosage may vary on different plant seeds so please contact your supplier for further information.

## HUMIEFFECT 13-2

Humic substances favor the root assimilation of nutrients and stimulate the growth of plants in all phases of their development. It improves the physical, chemical, and biological properties of any soil while favoring root assimilation of macro and micronutrients.

- · Soil conditioner and growth stimulant
- · Stimulates the development of the root system, improves plant nutrition
- Improves the transport and absorption of nutrients and trace elements
- · Restores and activates the beneficial microflora of the soil

Composition	w/w % (g/l)
Potassium (K₂O) soluble	2,5 (26)
Humic acid	12,1 (130)
Fulvic acid	2,3 (24)











## BIOLOGICAL PRODUCTS

- INO WHEAT
- · INO BRASSICA
- INO TUBER
- · BACTOMIX DESTRUCTOR
- BACTOMIX BACTODOC
- · BACTOMIX STAR SPECTRUM
- · BACTOMIX BACTO POWER



### INO WHEAT

This inoculant is designed to treat cereal seeds with mycorrhizal fungi, bacteria, and biostimulation substances.

- · Promotes seed germination
- · Helps plant root development
- · Protects plant roots from diseases caused by pathogens
- Converts poorly soluble phosphorus and potassium compounds into forms available to plants
- · The hyphal network of mycorrhizal fungi helps retain more water in the soil

COMPOSITION (1 LITRE):	
Microorganisms: Bacillus megaterium Bacillus velezensis Bacillus pumilus Bacillus polymyxa Bacillus licheniformis Bacillus mucilaginosus	1x10° CFU/g
Mycorrhiza: Glomus intraradices Glomus proliferum Glomus etunicatum Phoma radicis Razizella ericae Byssoascus Phialicephala fortini	3 000 000 spore/l

CHEMICAL COMPOSITION (5 Litre):	w/v	w/w	g/l
Amino acids	10	8.3	100
Humic acids	6.4	5.3	64
Fulvic acids	10	8.2	100
Seaweed	6	4.9	60
Nitrogen (N)	5	4.1	50
Phosphorus ( $P_2O_5$ )	5	4.1	50
Potassium (K₂O)	1.9	1.5	18
Total organic carbon	7.2	6.0	72
Brassinosteroid	0.2	0.16	2
Cytokinin	0.03	0.025	0.3





5+1 L





## **INO BRASSICA**

Provides a complex effect on plant development and productivity. An important element of INO-BRASSICA's effect on plant productivity is its growth-stimulating effect. Thus, microorganisms from the composition of the inoculation produce a considerable amount of phytohormones - auxin and cytokinin, protect plants from diseases affecting the root system and seedlings caused by pathogens, convert poorly soluble phosphorus and potassium compounds into plant-available forms, and fix nitrogen.

- Provides a complex effect on plant development and productivity. An important element of INO-BRASSICA's effect on plant productivity is its growth-stimulating effect. Thus, microorganisms from the composition of the inoculation produce a considerable amount of phytohormones auxin and cytokinin, protect plants from diseases affecting the root system and seedlings caused by pathogens, convert poorly soluble phosphorus and potassium compounds into plant-available forms, and fix nitrogen.
- · Increase of seed germination energy even under stressful conditions
- · Rapid formation of a strong root system
- · Rhizosphere formation from beneficial microbiota
- · Suppression of soil pathogens of bacterial and fungal diseases throughout the growing season
- Increasing crop yields by 3-10%

COMPOSITION:	
Microorganisms: Bacillus spp, B.licheniformis, B. polymyxa, B. mucilaginosus, B. methylotrophilcus, B. amyloliquefaciens. Enzymes, natural plant hormones, vitamins.	1x10 <sup>10</sup> CFU/g



50 G



Rapeseed 50 g for Mustard 75 g for Sugar beets Red beets 15 g for Sugar beets

50 g for 1,5 million seeds 75 g for 10 kg of seeds

15 g for 50 000 seeds



### **INO TUBER**

It is a complex of symbiotically acting bacteria, Trichoderma harzianum and mycorrhiza, which transforms poorly soluble phosphorus and potassium compounds into forms available to plants, stimulates the production of phytohormones (auxin, cytokinin) in the plant and mycorrhizal fungi effectively supply plants with water and nutrients.

The bacterial spores coat the seed tuber and remain dormant until the seeds begin t germinate. As they germinate, bacteria and mycorrhizae colonize the root system and establish a symbiotic relationship with the plant.

- The complex of living microorganisms increases the germination of seeds
- Promotes the development of lateral roots and faster growth of the plant, the number of tubers and a higher yield
- · Activates the plant's natural resistance to abiotic and biotic stresses

COMPOSITION (1 LITRE):	
Bacteria: Bacillus firmus, Penicillium bilaiae, Paecilomyces lilacinus, Bacillus subtilis, Bacillus amyloliquefaciens, Bacillus polymyxa, Bacillus megaterium	>1x10 <sup>9</sup> KFV/ml
Trichoderma harzianum fungus	>1x10 <sup>7</sup> KFV/ml
Mycorrhiza: Glomus intraradices, Phoma radicis, Razizella ericae, Byssoascus ssp., Phialicephala fortini, Penicillium spp.	3 000 000 spore/l
Organic matter	10 %
Free amino acids	1 %







# BACTOMIX DESTRUCTOR

BACTOMIX Destructor – a complex microorganismenzyme preparation designed to accelerate the process of humification and mineralization of crop residues and to reduce the viability of pathogens. By breaking down organic residues and restoring humus, the preparation enriches the soil with nutrients and transforms them into forms that are easily absorbed by plants.

- · Acceleration of decomposition and mineralization of plant residues
- · Helps optimize soil microbial populations
- · Improving the soil and reducing the number of pathogenic microflora
- · The return of nutrients localized in plant residues to the soil
- · Ensuring optimal density, moisture retention, and soil structure
- Increasing the yield of the next crop

COMPOSITION:	
Microorganism cultures: Bacillus subtilis, B. licheniformis , B. pumilus, Trichoderma viride, Trichoderma harzianum, Lactobacillus plantarum	1x10° CFU/g
Enzymes, humic, fulvic, amino acids, proteins, peptides	10 %



4 KG





## **BACTOMIX BACTODOC**



BACTODOC is a water-soluble bio inoculant, bio fertilizer and soil conditioner in dry formulation composed of arbuscular mycorrhizal fungi and 4 bacterial strains selected for direct application to the soil. Promotes the natural protection of plants against biotic and abiotic stress, effectively helping the plant to cope with stress on the root system. In addition, it is especially effective in poor soils.

- Increases microbial diversity and activity, improving soil fertility
- Activates the soil, increases the assimilation of phosphorus, potassium, silicon and calcium
- Enhances tolerance to stress situations such as drought, salinity, high and low temperatures
- The bacteria protect the roots by competing with possible pathogenic microorganisms in the soil

COMPOSITION:	
Rhizospheric microbial complex: Bacillus subtilis, Bacillus velezensis, Bacillus amyloliquefaciens, Bacillus methylotrophicus	5x10° CFU/g
Mycorrhizae content: Septoglomus deserticola	1 %
Organic matter (humic/fulvic acid)	10 %



1 KG, 4 KG





system



# BACTOMIX STAR SPECTRUM

BACTOMIX STAR SPECTRUM activates different biological processes in the soil, unlocks essential micro and macronutrients and produces a greater development of the root system and plant growth. In addition, it is especially effective in impoverished soils or in crops that are highly sensitive to diseases caused by soil pathogens, since it restores fertility, while stimulating and protecting plant root.

- Increases microbial diversity and activity, improving soil fertility
- Enhances tolerance to stress situations such as drought, salinity, high and low temperatures
- · Activates the soil, increases the assimilation of nitrogen, phosphorus, potassium, silicon and calcium
- The bacteria protect the roots by competing with possible pathogenic microorganisms in the soil

COMPOSITION:	
Rhizospheric microbial complex: Bacillus subtilis, Bacillus amyloliquefaciens, Bacillus licheniformis, Bacillus altitudinis (pumilus)	1x10° CFU/g
Mycorrhizae content: Septoglomus deserticola	1%
Organic matter (humic/fulvic acid)	10 %



1 KG, 4 KG







Irrigation

system

# BACTO POWER

BACTO POWER activates different biological processes in the soil, unlocks essential micro and macronutrients and produces a greater development of the root system and plant growth. Promotes the natural protection of plants against biotic and abiotic stress, effectively helps the plant to cope with stress of the root system. In addition, it is especially effective in poor soils.

- · Increases microbial diversity and activity, improving soil fertility
- · Activates the soil, increases the assimilation of nitrogen, phosphorus, potassium, silicon and calcium
- Enhances tolerance to stress situations such as drought, salinity, high and low temperatures
- Stimulates root growth

COMPOSITION:	
Rhizospheric microbial complex: Bacillus licheniformis, Bacillus subtilis, Bacillus methylotropicus, Bacillus megaterium, Bacillus altinunides (pumilus)	1x10° CFU/g
Mycorrhizae content: Septoglomus deserticola	1%
Organic matter (humic/fulvic acid)	10 %







Irrigation

system



## WATER CORRECTORS

- ELIT LF
- PH FOCUS
- IZZY CLEANER
- ANTIFUMA



## ELIT LF

ELIT LF is a super spreading agent for foliar-applied agrochemicals, including herbicides, insecticides, fungicides, plant growth regulators, fertilizers and micronutrients. As a nonionic surfactant based on polyether modified trisiloxane, ELIT LF performs much better than conventional spray adjuvants in lowering aqueous surface tension and reducing contact angle of spray solutions on leave surfaces.

- Low surface tension leads to enlarging droplet coverage
- Efficacy and rain fastness
- · To save the use of water and agrochemicals
- Improves the penetration of other substances, and by 30% increases the effectiveness of pesticides

COMPOSITION:	w/v %
POLYETHER MODIFIED TRISILOXANE	100

#### DOSAGE

50-100 ml 200 l water 100-200 ml 200 l water

#### **SPRAYING**

Plant growth regulators, fungicides Herbicides, insecticides, fertilizers and trace elements

 $0.025\%\mbox{-}0.1\%$  of the spraying solution, based on the agrochemicals used with,

generally 50-100 ml ELIT per 200 liters spray solution is suggested.



VIVA ELIT LF

### PH FOCUS

Water hardness conditioner and pH regulator that softens hard water by chelating calcium, magnesium, and iron ions, so the active substances remain stable, preventing the formation of sediments. Product lowers the pH of water, which prevents alkaline hydrolysis.

- · Lowers the pH to 6.0-6.5, which will benefit most pesticides
- · Reduces the risk of pesticide ineffectiveness and additional costs
- Relatively low dosage rate
- · Easy to use, liquid form

COMPOSITION:	w/v %
(HEDP)	>50
H3PO4	<2

#### **DOSAGE**

MEDIUM HARD WATER VERY HARD WATER 10-20 ml 100 l water 20-30 ml 100 l water





### IZZI CLEANER

IZZI CLEANER is specifically formulated for use in cleaning spray tanks, pumps, hoses, booms, nozzles and all other spray gear. It is suitable for cleaning after the use of a wide range of plat protection products including herbicides, insecticides, fungicides, plant growth regulators.

- · Easy to use liquid formulation
- Product of good water solubility
- Easily removes fertilizer residues and oily deposits from the equipment
- · Can also be used in high-pressure washers to remove debris, dirt, etc. on the outside of the sprayer

#### **COMPOSITION:**

Benzenesulfonic acid, mono-C10-16-alkyl derivs., compds. with ethanolamine, Ethanolamine, D-Glucopyranose, oligomeric, decyl octyl glycosides, Dipropylene glycol methyl ether.

	Dose of IZZI CLEANER	Water amount
1000 L container 2 2000 L container 5	0,25 L 2,5 L 5 L 10 L	50 L 500 L 1000 L 2000 L





5 L

### **ANTIFUMA**

Water hardness conditioner and pH regulator that softens hard water by chelating calcium, magnesium, and iron ions, so the active substances remain stable, preventing the formation of sediments. Product lowers the pH of water, which prevents alkaline hydrolysis.

- · May be mixed with all pesticides and fertilizers
- · Allows the sprayer to be completely filled with the solution
- Prevents spontaneous foam outbreaks saves time and solutions, and protects the environment

COMPOSITION:	w/v %
POLYDIMETHYLSIOXANE	20,0

DOSAGE 2-4 ml / 100 L water





#### List of additional products:

	nai products.		
		g/I	%
	MgO	50	3,6
ALFA	Zn	15	1,1
	Mn	70	5
BRASSICA	Мо	5	0,4
	SO3	0	5
pH HELP	Citric acid monohydrate	474	40
	N	134	9,2
EFFECT Ca	CaO	230	15,9
EFFECT Cu+AA	N	64	5,2
	Cu	80	6,5
	AA	150	12,1
VIVAGEL NP 10-24+AA	N	100	8,1
	P2O5	240	19,4
	AA	40	3,2
	N	240	20
VIVAGEL NP	P2O5	100	8,3
23-10+AA	AA	40	3,3
		40	
HUMIRIZ	Total humic extract		16,6
	Humic acids		11,8
	Fulvic acids		4,8
	Seaweed extract		25
	Amino acids		18
	Potassium (K <sub>2</sub> O) water soluble		2,3
	Bacteria: Bacillus licheniformis, Bacillus pumilus, Bacillus megaterium, Bacillus amyloliquefaciens, Bacillus subtilis		1,7 (2 x 10 <sup>10</sup> IP)
	Endomycorrhizal fungi: Glomus intraradices, Glomus proliferum, Glomus etunicatum		28,0 (50 000 IP)
HUMISAP GEL	Total humic extract		16,8
	Humic acids		12,8
	Fulvic acids		4,0
	Amino acids		6,4
	Potassium (K₂O) water soluble		2,9
	Hydrogel (potassium polyacrylate)		60
	Bacteria: Bacillus licheniformis, Bacillus megaterium, Bacillus subtilis		1,1 (2 x 10 <sup>10</sup> IP)
	Endomycorrhizal fungi: Glomus intraradices, Glomus proliferum, Glomus etunicatum		8,0 (24000 IP)
ARMADURA	Acrylic emulsion with sandstone filler		100
BACTOMIX Sprint	Bacteria: Azotobacter chroococcum, Bacillus megaterium, Bacillus mucilaginosus, Bacillus subtilis, Bacillus velezensis, Bacillus polymyxa, Bacillus licheniformis, Streptomyces microflavus.	> 1x10 <sup>10</sup> CFU/ml	
	Trichoderma viride	>1x107 CFU/ml	
МУСО	Mycorrhiza: Glomus intraradices, Glomus proliferum, Glomus etunicatum, Septoglomus desertícola etc.	500 000 – 900 000 spores/kg	
	Organic matter	10%	
TRIHO	Trichoderma viride, Trichoderma harzianum	1x10 <sup>8</sup> CFU/g	
	Total nitrogen (N)	1,6 %	
	Organic nitrogen (N)	1,5 %	
	Potassium (K2O)	17 %	
	Humic acids	40 %	
	Fulvic acids	17 %	
	Proteins	9,8 %	
	Free amino acids	0,6 %	
	Dry matter	91,7 %	
	Organic carbon (Corg)	38,2 %	
	Organic carbon (corg)	30,2 70	

