



Fito Horm[®]

...PLANT NATURALLY DESERVES IT

20
23

PACKAGE DEALS

GRAIN PACKAGE:

FitoHorm Grain 20 L + FitoHorm Turbo Sulfur 20 L (7 ha / package)



RAPE PACKAGE:

Polyboron 140 20 L + FitoHorm Turbo Sulfur 20 L (7 ha / package)



CORN PACKAGE:

FitoHorm Turbo Nitrogen 100 L + FitoHorm Turbo Zinc 20 L (10 ha / package)



SUNFLOWER PACKAGE:

Polyboron Plusz 20 L + FitoHorm Turbo Potassium 20 L (10 ha / package)





DEAR READER!

Every year is different, there are no two same years!

The year 2022 was difficult in many ways! On the one hand, from the economic point of view, the prices of input materials have jumped high, and on the other hand, nature has not been kind to us either.

On the economic side, high energy prices, unprecedented high inflation resulted in high raw material prices, which of course, they also appeared in the prices of the products.

And nature has put us to a great test. Even the old people did not remember such a drought as was in the year 2022! At the beginning of the year, the winter was dry, the spring was windy, and the summer was warm and rainless. The number of hot days has also increased. At the end of the year, autumn was the only season that brought the expected performance, if we may say so. Then, if one of us looks back at the statistics in a few decades, he will not notice a drastic difference in terms of annual rainfall.

There are not so many problems with the quantity, but unfortunately there are even bigger problems with the distribution.

WHAT CAN WE DO IN THESE CASES?

We think that in such cases it is sometimes better to have a little break; to step back and look around, to look forward. Are we sure we are doing everything right? Are we really growing the best plant in our area? Are you sure you need this many operations? Are we really supplying plant crops with nutrients in the best possible way?

Now, at the beginning of 2023, we have time to think about and answer these and similar questions. According to meteorologists, we have to count on these extreme periods more and more often. Of course, foliar fertilization does not provide either a 100% solution to the lack of water, but it helps our plants get through the days. Where there is no water, unfortunately, there is no life! Targeted, appropriate meso- and micronutrients released at the right time can help nutrient absorption, strengthen tissues, and allow the plant to breathe.

With this publication, we at FitoHorm are trying to provide help in the field of nutrient supply through foliage. We are good at this, our regional consultants are experienced professionals and are ready to help you, look for them with confidence.

We trust that everyone will find the answer to their questions in the field of foliar fertilization in our catalog and after the winter break, we will start the year 2023 together with renewed strength.

We would like to wish everyone good health, good luck and, of course, good economic results provided by FitoHorm products.

Yours Sincerely,



SZABÓ ATTILA
Executive Director



FORRAI DUSÁN
Company Manager

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SMALL BOOK



ABOUT FOLIAR FERTILIZERS

CHELATIZED MICRO-ELEMENT FERTILIZER AND THE FITOHORM!

FITOHORM KFT is committed to chelated, true solution foliar fertilizers, based on licensing experiments 38 years ago and in the light of practical experience to date.

Chelates are metal complexes of special structure, with ligands surrounding the metal ion in a "chelate" (Greek "chelate") and thus forming stable metal ring complexes. Because of their water solubility and stability, metal chelates can be used as both spray and soil fertilizers. The use of chelated micronutrient foliar fertilizers allows for a more even distribution of nutrients, which in itself provide good adhesion and therefore better utilization as these formulations penetrate the waxy cuticle of the leaves more easily and quickly..

DISPERSE SYSTEMS:

The **pure salts**, due to their unformulated nature, have inadequate foliar efficacy.

An **emulsion** is a colloid in which particles of a liquid are dispersed in another insoluble liquid. As these products are referred to as a kind of physical solution, it is difficult and slow to take up the active ingredient.

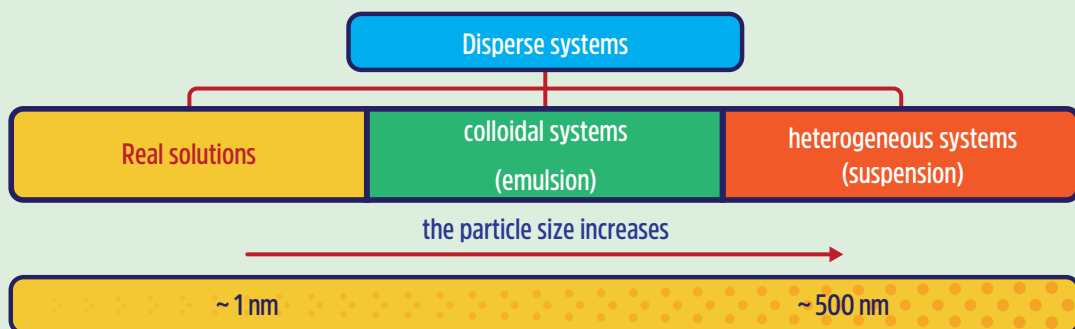
The **suspension** is a mixture in which there is no dissolution of the components. Most commonly, a mixture of solid particles suspended in a liquid is referred to as a suspension. After some time, the heavier components settle on the bottom of the vessel (gravity separation; settling). Usually a group of particles larger than 500 nanometers distributed in a liquid. Often unstable, their mixability and application time are significantly more critical. Floating solids particles are much more difficult to penetrate into plants due to their size, so they have a much lower efficiency than true solution foliar fertilizers.

Az **solution** is a multi-component system (mixture) in which one component is usually present in greater amounts (solvent) than the other components (solute).

The **Real solutions** can be classified as homogeneous dispersion systems. Among the components, the solvent (continuous medium) was highlighted, the rest being the dissolved (dispersed) material. In real solutions, the particles have a particle size of 0.1-1 nm.

The nutrient requirement of a rapidly developing stock often exceeds the nutrient uptake capacity of the roots. In case of unfavorable soil conditions (compaction, sludge, drought, etc.) or extreme weather conditions (drought, too cold weather, leaching losses, etc.), nutrient uptake becomes inhibited. In these cases, well-applied foliar fertilization is an effective aid to the stock, as the necessary nutrients can be quickly and purposefully introduced into the plants. The most effective means of this is chelating agents. Chelated leaf fertilizers are widely used to improve the nutritional status of micronutrient deficient populations.

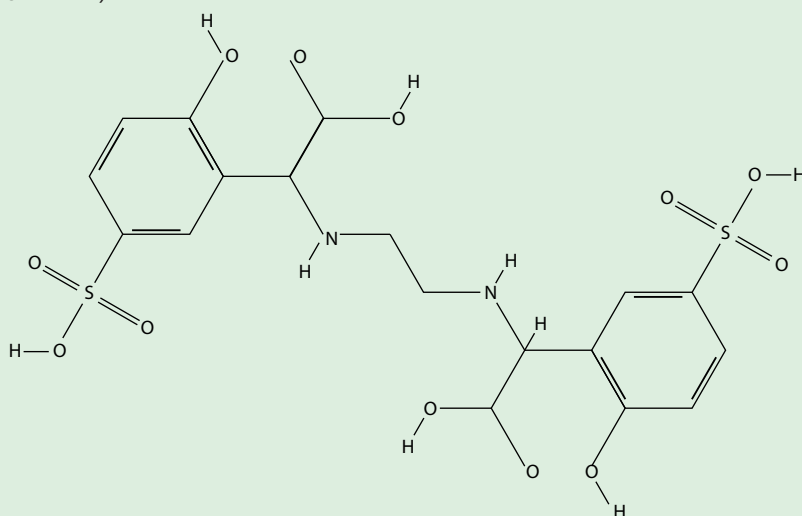
Advice based on soil and leaf studies, which FitoHorm KFT has been using successfully since 1980, facilitates the correct selection of trace elements. We also encourage our new partners to carry out these tests prior to a reasonable nutrient supply.



the particles	real solutions	colloidal systems	heterogeneous systems (suspension)
size	0,1-1 nm	1-500 nm	500 nm
visibility	invisible	with ultra and electron microscope	with light microscope
deposition	don't settle	don't settle	willingly takes place
filterability on a paper filter	no filterable	no filterable	filterable
example	sugar solution	sugar solution	plant protection solution with elemental sulfur

Chelated formulations can be stored in solution for a much longer period of time without the risk of precipitation, and are more problematic when co-applied with pesticides. The use of chelated micronutrient foliar fertilizers allows for a more even application of nutrients, which in themselves provide good adhesion and therefore better utilization as these formulations penetrate the waxy cuticle of the leaves more easily and quickly. Chelates can also be ranked based on different parameters. The best known of these is EDTA (**ethylenediamine tetraacetate**), the most modern and the most environmentally friendly is EDDHSA **ethylene diamine-N, N'-bis [(2-hydroxy-5-sulfo) ferric acetate]**. Fitoform KFT foliar fertilizers are chelated with EDDHSA chelator, which has Reach registration.

(EDDHSA: Unique Micronutrient Enhancement Formula is an organic chelating molecule. With its amino acid formula, it brings microelements into the form most easily absorbed by the plant. Numerous plant experiments have proven its effectiveness. It does not have the disadvantage of EDTA.)



	PH stability (>7)	efficiency of absorption	duration of effect
EDTA	•	•	•
STPA	• •	• •	• •
EDDHMA	• • •	• • •	• •
EDDMA	• • •	• • •	• • •
EDDHSA	• • • •	• • • •	• • • •

FITOHORM SMALL BOOK

WHAT, WHEN, WHAT TO USE IT FOR?

> Seed treatment (dressing)

Why use FitoHorm dressing material?

- » Because it provides the necessary nutrients for the germinating seeds - until the root and foliage of the seedling is formed,
- » Because it improves the germination power and percentage of seeds with lower germination capacity (older items),
- » Because it accelerates the growth of plants and thus ensures uniform emergence,
- » Because it allows the plant to excel in rooting: faster access to deeper, nutrient-rich layers of soil - and more efficient nutrient uptake from these layers,
- » Because it increases the resistance of the plant to adverse environmental conditions at germination (drought, inland water, cold).

> ROOTING

Occasionally, the rate of growth is even unsatisfactory, even with a higher root mass, because the root system is unable to absorb sufficient nutrients due to its rapid development. It is more common that nutrient uptake is inhibited for some environmental reason (eg drought). It is important for the nutrient uptake to have the root as early and as large as possible, since only plants with a strong root can withstand environmental stress and can subsequently produce high yields. Root cultivation requires a lot of energy and its production and transport must be accelerated. For this, it is important to create the largest possible root mass.

OUR PRODUCT RECOMMENDED FOR SEED DRESSING:

- » MicroMax (2-3 liter/seed ton)
- » FitoHorm MagMAX (4-5 liters/ton of seed)



OUR RECOMMENDED PRODUCTS FOR ROOTING:

Primary effect:

- » FitoHorm Turbo Magnesium
- » FitoHorm 30 P
- » FitoHorm Turbo Start

Secondary effect:

- » FitoActive
- » FitoHorm Turbo Macro

➤ Growth-incentive (green weight increasing)

It is extremely important to know the agrotechnical optimum of each plant, and in particular the specific nutrient requirements of the varieties / hybrids, which ensure the optimum yield and maximum yield under specific ecological conditions. Without the right amount of green mass, plants cannot be expected to produce high yields.

OUR RECOMMENDED PRODUCTS FOR QUALITY IMPROVEMENT AND MATURITY ACCELERATION:

Our primary effect products:

- » FitoHorm Turbo Nitrogen
- » FitoHorm 14 N
- » FitoHorm Complex Plus

Our secondary effect products:

- » FitoHorm Turbo Sulfur



➤ Stimulation of crop fixation

The basis of our yields is the sum of the bound fruits. Unfortunately, the ideal circumstance is very rare during the harvesting season, so stimulating it is of utmost importance in Hungary. There are two ways we can promote FitoHorm products at the same time:

1. Stimulate pollen production to increase pollen production. This will increase the likelihood of the stigma getting into pollen.
2. Another method is to increase the stamina's capacity to stay wet for longer, to adhere to the pollen, and to provide enough power to shoot the pollen tube.

OUR RECOMMENDED PRODUCTS:

- » Polyboron 140
- » Polyboron Plus
- » FitoHorm 10 B



➤ Maturation acceleration, quality improvement

There are several reasons for accelerating the maturation process: unfavorable environmental conditions, market, work organization or extremes (gluten, color, sugar level, etc.). Each is a strong argument for using a maturation accelerator!

OUR RECOMMENDED PRODUCTS FOR QUALITY IMPROVEMENT AND MATURITY ACCELERATION:

- » FitoHorm Turbo Potassium
- » FitoHorm Complex Plus Agro
- » FitoHorm 39 K



➤ Our products that can be mixed with liquid UAN solutions:

The use of UAN solutions (Nitrosol, Nikrol, etc.) as head fertilizers is a very widespread method in our country in early spring. Its utilization through the foliage and its scorch-free application, in all cases, depends on the chemical form and weather conditions. Thanks to the combined effect, our micronutrient foliar fertilizers, which can be applied in one pass with various UAN solutions, are utilized and activated even faster in the plant. In our products, the active ingredients and the chelating molecule are mixed both physically and chemically without any damage. Thanks to their mixability, they allow targeted micronutrient replacement at no additional cost.

OUR RECOMMENDED PRODUCTS FOR MIXING (1-2% ACTIVITY):

- » FitoHorm Bio Grain
- » MicroMax
- » FitoHorm Turbo Sulfur
- » FitoHorm Turbo Magnesium
- » FitoHorm Turbo Copper
- » FitoHorm Turbo Zinc
- » FitoHorm Turbo Potassium
- » Polyboron 140
- » Polyboron Plus
- » FitoHorm Turbo Start
- » FitoActive

DEFICIENCY SYMPTOMS

> Nitrogen deficiency (N)

Dwarf growth: Due to the lack of N, the growth of the plant is inhibited and therefore unable to reach the ideal size. The inhibitory effect is exerted by longitud

N-deficiency is characterized by „**stiffness**“, which is manifested on the stem and leaves.

Nitrogen deficiency always first shows signs of **yellowing and necrosis on older leaves and plant parts** while the younger parts of the plant retain their green color for a long time. Symptoms of N-deficiency differ from other deficiency **diseases in that the reddish tones on the leaves always accompany the lighter green or yellow color of the whole plant.**

In case of N-deficiency use **FitoHorm 14 N nitrogen** solution or **FitoHorm Turbo Nitrogen** foliar fertilizer.



> Phosphorus deficiency (P)

Symptoms of P deficiency are less characteristic than other deficiencies. In many cases, the affected plant may give the appearance of N-malnutrition or optimal nutrient supply. Anthocyanin formation associated with P deficiency may result in reddish, purple, or dark purple discoloration. In cereals, this can occur mainly on the leaf pod and stalk, in the corn itself on the leaf, while on other plants it can occur on the back or possibly on both sides of the older leaves.

Symptoms often **first appear only on older leaves**. The plant produces only tiny, mostly deformed flowers. P-deficiency reduces the quality of cereals in the bakery industry and prevents the starch fro

In case of P deficiency use **FitoHorm 30 P** solution, **FitoHorm Turbo Macro** or **FitoHorm Turbo Start** fertilizer.



HIÁNYTÜNETEK



> Potassium deficiency (K)

Insufficient K supply can be recognized even before the appearance of obvious symptoms of deficiency. **K-deficient plants**, due to disturbances in the turgor regulation and stomach mechanism, **lose sleep faster** in dry, warm, sunny days than well-potassium-rich plants.

K-deficiency begins with yellowing on the older, lower leaves, beginning at the apex of the leaves, and later the **tissue between the leaves becomes dry**. In monocotyledons, K-deficiency symptoms always start at the apex of the leaves and spread most rapidly along the edges towards the leaf base.

The K-deficiency **results in reduced plant resistance to disease, drought and cold tolerance and deterioration in fruit coloring**. In case of K-deficiency use **FitoHorm 39 K** potassium solution or **FitoHorm Turbo Potassium** fertilizer.



> Magnesium deficiency (Mg)

Characteristic symptoms of **Mg deficiency**, first of all on the older leaves, stem from the destruction of chlorophyll. Deficiency symptoms can also begin on the younger leaves if the plant grows very fast and the magnesium is not transported sufficiently from the older leaves..

In grasses and cereals, due to local chlorophyll accumulation, older leaves, along the veins, exhibit a **bead-like marble appearance** while the rest of the leaf retains its green color. Keeping the letter light, this phenomenon is particularly visible. Later, pale green or yellowish green chloroses occur. The yellowing extends from the apex and the margin of the leaf to the base of the leaf.

In case of Mg deficiency use **FitoHorm 24 Mg** magnesium solution, **FitoActive** or **FitoHorm Turbo Magnesium** foliar fertilizer.

DEFICIENCY SYMPTOMS

> Sulfur deficiency (S)

Sulfur deficiency, like **nitrogen deficiency**, appears as a **yellowish-green or markedly yellow color**, which makes it difficult in many cases to distinguish the deficiency symptoms of the two elements..

The obvious difference between sulfur and nitrogen deficiency is that **the former usually first appears on the youngest leaves**. In this case, older leaves do not die as with nitrogen deficiency. Sulfur-deficient **plants are lower than normal**, and when deficient, they grow stubbornly, as do nitrogen-deficient plants. The **leaves are smaller**, often **narrower**. In the case of a deficiency of sulfur, protein production deteriorates, along with the baking industry parameter, and the oil content of the oil plants decreases.

In case of S-deficiency use **FitoHorm Turbo Sulfur**, **FitoHorm TurboPotassium** or **FitoActive**.



> Boron deficiency (B)

Boron deficiency always occurs on the youngest leaves and on the tops of the shoots and roots. **Boron deficiency manifests itself in a variety of visually detectable morphological changes, such as**

- » Chlorotic discoloration of the youngest rosette leaves;
- » Shorter flavors;
- » Terminal bud and shoot death;
- » Leaf stalk, stem paralysis and run-up;
- » Less flower and seed training combined with kicking of seed boxes;
- » Inhibited root growth with abnormal root formation abnormally;
- » Brown blotch, vitrification, dry rot, loose tissue, often with cavities in the fruit, carrot, torso, especially near the bundles and conveying tissues.



In case of B-deficiency use **FitoHorm 10 B** boron solution, **Polyboron 140** or **Polyboron Plus** foliar fertilizer.

DEFICIENCY SYMPTOMS



➤ Calcium deficiency (Ca)

Ca-deficiency is strongly correlated with the functions of calcium in the plant. Symptoms first appear on the youngest and most diffusing organs, so the growth of the plants is inhibited and their bushiness is bushy. **The youngest leaves, which are primarily affected, are usually smaller, deformed, and their tips and edges curl in a spoon.** The edge of the leaf is irregular. Starting from the edges and especially from the apex, spreading to the intervertebral fields, there is chlorotic scab and **coherent chloroses**, which produce brown, necrotic, over time patches. Occasionally, the leaf disc may also develop necrosis. It is characteristic of Ca-deficiency that the color of the vessels, even on fully necrotized leaves, is always **darker than that of the intercostal fields.**

In the case of poor Ca supply, the otherwise normally developing plant may have a sudden onset of so-called. **"Softening of the stalk"** or **"fracture of the stalk"**.

LACK OF CALCIUM CAN CAUSE MANY OTHER SYMPTOMS AS EXAMPLES:

- » Cereals often have only frivolous eyes
- » In spring intensive growth of rape , rape stems and cracks not caused mainly by the cold,
- » Common beans, locusts, mustard and alfalfa often kick their flowers,
- » With peppers "Sunburn", a dry dead crop of fruit,
- » Melons and tomatoes show" peak "and" flower peak rot ", especially at high temperatures,
- » On the lettuce there is a tan.

For Ca deficiency use **FitoHorm 40 Ca calcium** solution or **FitoHorm Turbo Calcium** foliar fertilizer.

DEFICIENCY SYMPTOMS

➤ Copper deficiency (Cu)

The occurrence of copper deficiency can fluctuate significantly from year to year, depending on the weather conditions at the same site. In drier years, copper deficiency is more common in the early stages of juvenile development. **Copper deficiency is very difficult to detect with the eyes.** Symptoms usually **first appear on the leaf, still on very active metabolic leaves and organs.** Copper deficient plants often produce higher vegetative masses, but severe disturbances occur during the generative developmental phase. Mostly fruit trees are characterized by an increased grafting of side buds. In the case of copper deficiency, the herbaceous species may exhibit sustained wilting, the formation of "**flaccid**" tactile leaves, **leaf blemishes**, or **leaf deflection**.

In case of Cu deficiency use **FitoHorm 63 Cu** Copper Solution or **FitoHorm Turbo** Copper Fertilizer.



➤ Iron deficiency (Fe)

Iron deficiency is still the most difficult remedy for deficiency disease, which can cause significant damage and loss of yield to certain crops and certain soils. At a slight deficiency, **the youngest leaves of the plant lighten to yellowish-green.** As the deficiency increases, the interstitial fields become yellow to orange or orange. The discoloration is manifested on the youngest leaves, in the form of a chlorotic stripe covering the entire leaf. The younger the leaf, the more intense the symptoms of specific chlorosis appear. **In the case of a very severe deficiency, the youngest leaf emerging is yellowish-white or almost white,** or only green at the base of the leaf, contrasting sharply with the other leaves.

In case of Fe deficiency use iron solution **FitoHorm 55 Fe** or **FITO-FERR T-3.**



DEFICIENCY SYMPTOMS



> Manganese deficiency (Mn)

Chlorophyll is degraded in manganese deficient cells. As a result, the cells lose their green color and small, yellowish-green, tiny, punctate necrosis first develops in the smaller blood vessels, initially confined to areas farther from the blood vessels and exhibiting light spots in the incident light. The spots will turn yellowish white.



In the case of persistent deficiency, the flesh of the leaves also becomes chlorotic, leaving only a narrow green border around the vein at the base of the leaf. Symptoms of manganese deficiency are most often found on leaves of younger or middle age, and are most pronounced on leaves closer to the base. At high levels of growth inhibition due to manganese deficiency, **reduced flower and fruit production, weak leaf and root growth** can also be observed.

For Mn deficiency use **FitoHorm 54 Mn Manganese** Solution or **FitoHorm Turbo Manganese** Fertilizer.



> Zinc deficiency (Zn)

Zinc deficiency develops in plants in different ways, which can be:

- » Small leaf
- » Rosette
- » Chlorotic congestion due to patchy chlorosis in the intervertebral fields, which gives the leaves a mosaic appearance.



Since zinc plays an important role in auxin metabolism, the deficiency symptoms are also due to auxin deficiency. Thus, the leafy foliage, coupled with smaller or larger leaf deformation, and the growth inhibition coupled with rosette formation due to shorter flavors, are considered to be typical symptoms of zinc deficiency. In maize, in the case of a deficiency of zinc, the development of fertilization disorders is very noticeable, which is often accompanied by the formation of small deformed grains.

For Zn deficiency, use **FitoHorm 65 Zn Zinc** Solution or **FitoHorm Turbo Zinc** Fertilizer.

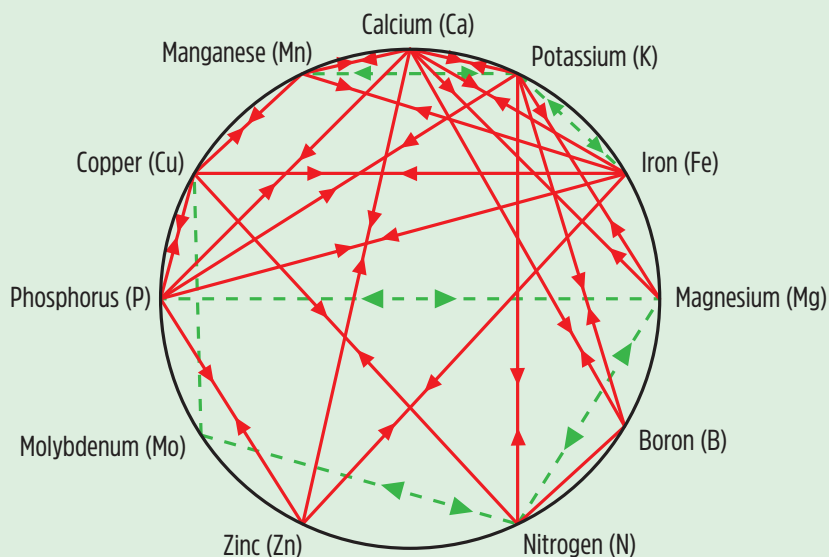
NUTRIENT INTERACTION

Antagonist

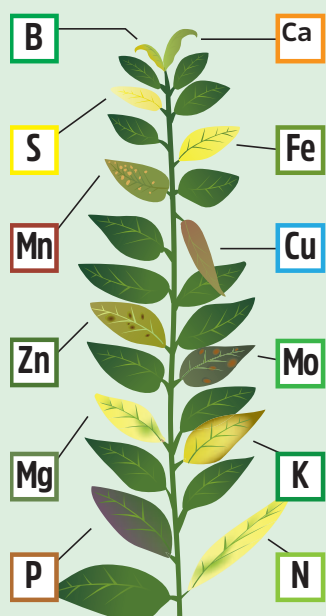
The predominance of one element suppresses the inclusion of another low concentration element.

Synergist

Positive interaction when one element helps to incorporate another element.



RECOGNITION OF DEFICIENCY SYMPTOMS



Visual deficiency symptom

On old leaf

Fading leaves, yellowing **N - def**

Purple, magenta **P - def**

Blade necrosis **K - def**

Yellowing between leaf veins **Mb - def**

On young leaf

Yellowing **S - def**

Leaf bend, distortion **B - and Ca - def**

Yellowing between leaf vein **Fe - def**

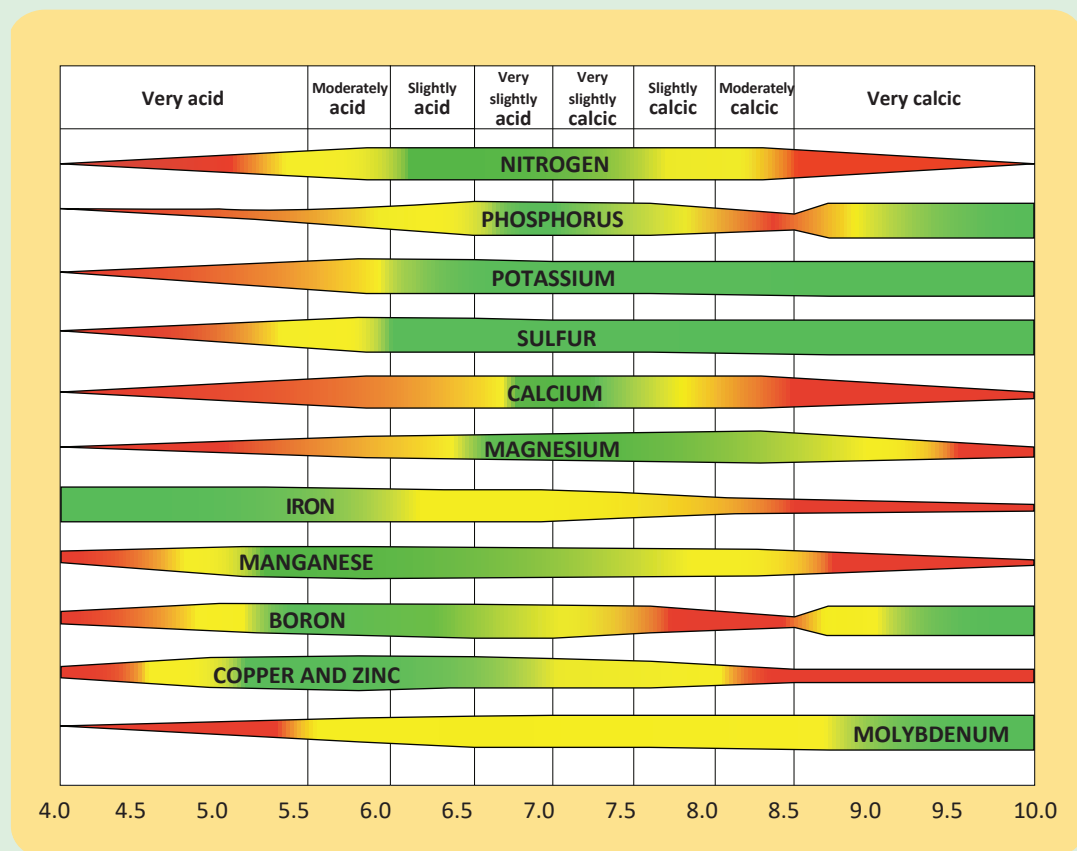
Leaf blotching, perforation **Mn - def**

Small, stiff leaf **Zn - def**

Curled brown leaf **Cu - def**

NUTRITIONAL CAPACITY ON THE SOIL PH FUNCTION

The diagram shows that as the pH increases, the uptake of many trace elements in the soil is greatly reduced. This is especially true for iron and manganese. From the diagram you can see which nutrients are blocked by the host, so effective replenishment of these nutrients by foliar fertilization is essential.



HOW EFFECTS SOIL PH ON NUTRIENT CONSUMPTION (PH FACTOR)

The pH of the growing medium is very important and is also the most misunderstood factor. The plant carries the elements in the water, so their water solubility is essential for immediate utilization. This is a function of pH.

The best pH for any medium is in the range of 5.4 to 6.0. Nutrient utilization is a function of pH. The width of the strips indicates the degree of utilization

INHIBITORS

An added compound to nitrogen-based fertilizers whose role is to reduce fertilizer losses in plants. By prolonging the active time, the nitrogen component of the fertilizer remains in the soil (either urea-N or ammonium-N), so the inhibitor improves the efficiency of nitrogen utilization (NUE) and reduces environmental emissions.

There are two main types of nitrogen inhibitors:

1. **Urease inhibitors (UI)** that inhibit the urease enzyme on urea hydrolytic effect.
2. **Nitrification inhibitors (NIs)** that inhibit ammonium biological oxidation to nitrate.

> Urease inhibitors (UI)

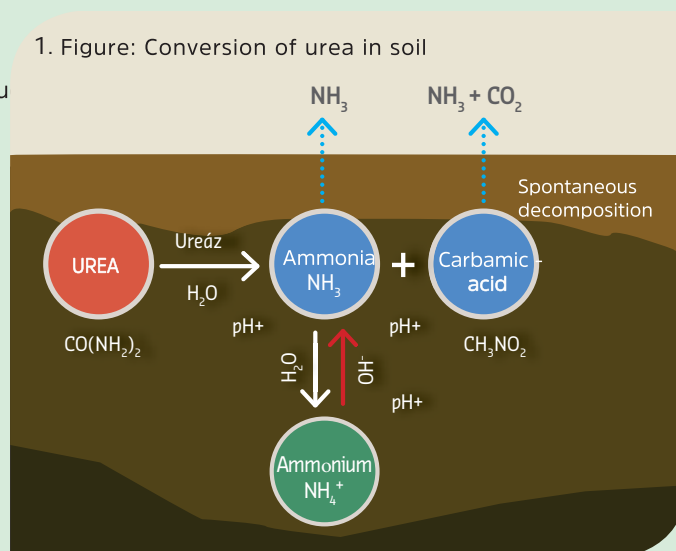
Urea fertilizer is difficult for plants to absorb. In order to be used as a nitrogen source, it must first be converted to ammonium (NH_4^+) and nitrate (NO_3^-).

In the soil, urease enzymes are responsible for the first step of the transformation. Urea is unstable in the presence of water, so the conversion process usually starts immediately, but not directly to ammonium. Urea is first converted to ammonia and carbamic acid, which decompose spontaneously to ammonia and carbon dioxide (Fig. 1).

The conversion rate of ammonium and the loss of ammonia depend on a number of factors:

- » the most important is soil, temperature and humidity
- » the amount of plant soil residue on the soil surface
- » the cation exchange capacity of the soil and the pH of the soil.

High ammonia losses tend to occur in light soils and tillage zones. Although up to 80% ammonia loss has been recorded in laboratory studies, an average of 24% (20% ammonia-N) ammonia loss by evaporation is assumed (EEA, 2013).

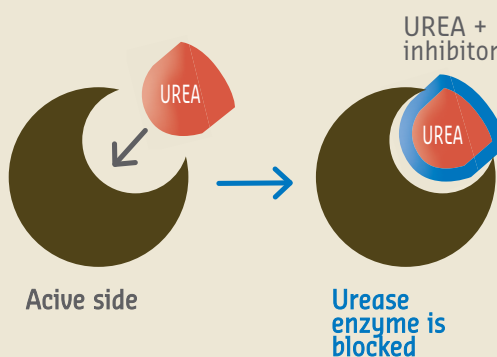


Reduction of ammonia loss

One way to reduce ammonia loss is to treat urea-based fertilizers with urease inhibitors. This effectively delays their conversion to ammonia and carbamic acid by blocking the action of the urease enzyme for approximately two weeks (Figure 2).

Using the technology, ammonia losses can be reduced by an average of 70%.

2. Figure: OPERATION OF UREA INHIBITORS

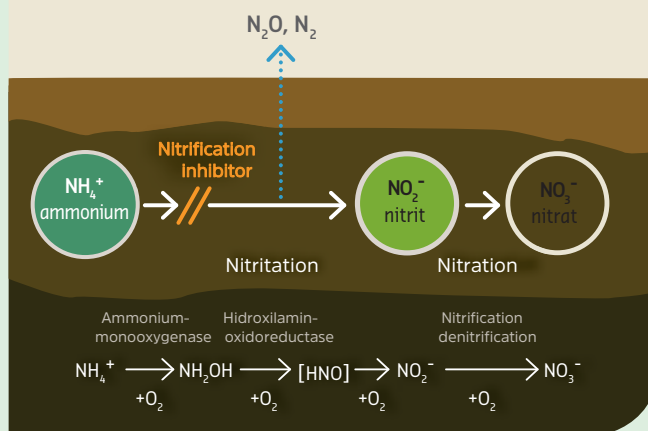


> Nitrification inhibitors (NI)

Depending on the temperature, ammonium and ammonium nitrate fertilizers in urea are rapidly converted to nitrate by nitrification. The use of fertilizers that inhibit nitrification significantly reduces the risk of nitrate leaching.

The nitrification inhibitor delays the conversion of ammonium nitrogen in the soil to nitrate by temporarily suppressing the effect of *Nitrosomonas* spp. the enzyme ammonium monooxygenase of soil bacteria, which is responsible for the first step of the nitrification process (conversion of ammonium to nitrite) (Figure 3).

3. Figure: NITRIFICATION OF SOIL AND FUNCTIONING OF NITRIFICATION OF INHIBITORS



The length of the nitrification time depends mainly on the ambient temperature. At low soil temperatures the period is quite long, while at higher temperatures it is relatively short.

In addition to nitrate, ammonium can also be a direct source of nitrogen for plants. However, unlike nitrate, it is poorly translocated into the rhizosphere, which prevents its rapid uptake. Nitrification inhibitors support the partial ammonium feeding of the plant.

FITOHORM MAGMAX

MICRO - ELEMENT COMPOSITION FOR COATING

A good start is important in all areas of life, and this is exponentially true for the early stages of our cultivated cultures. If you think about it, all the negative effects that lurk on a young plant can be greatly reduced if germination, rising and the subsequent juvenile life stage take place quickly, explosively, in proper condition. Homogeneous, vitally emerging vegetation fights weed competition more effectively, grows out of the "mouth" of pests sooner, and, thanks to its strong roots, provides a basis for further development that can be the key to survival in a later stressful period.



FitoHorm's product range has so far not included a microelement formulation specifically intended for dressing, however, our seed treatment experiments with microelements in recent years have drawn attention to the benefits and necessity of this type of formulation.

The following microelements in the product help the initial / germination of the plant:

> Zinc (Zn)

- » both specific and non-specific activators of enzymes
- » **multiplies the elongation of the primary root hairs**
- » an activator of the synthesis of auxin as a growth hormone in association with manganese.

> Manganese (Mn)

- » enzyme (Peptidase, Prolidase Glutamyl transferase, Enolase,) affects cellular respiration, i.e. ensuring the smooth flow of carbohydrates,
- » **linked to zinc affects the formation of auxin, it helps the elongation of both root formulas and shoot initiation formulas to be faster.**

> Boron (B)

- » "switching element" of carbohydrate metabolism processes
- » carbohydrate "mobilizer" element
- » **it regulates the water uptake of the germinating seed, i.e. it affects the swelling processes of the seed in the first days.**

> Molybdenum (Mo)

- » Catalytic nutrient in almost all enzymatic processes bound to metal components,
- » helps to absorb and incorporate boron,
- » **regulates initial nitrogen uptake.**

Another outstanding advantage of MagMAX is that it can be mixed well with other dressings, increasing their adhesion, efficiency and coloring effect.

FITOSERVICE

THE LEAF ANALYSIS!

In the '80s, the spread of FitoHorm mono foliar fertilizers was helped by nutrition consultancy. One of the pillars of this system was leaf analysis. Following the change of regime, the structure of farmers was completely transformed, so the nutrient supply through the foliage was also neglected. It took many years for farmers to re-learn how to target macronutrients and micronutrients. And over the past decade, the optimal application of different types of fertilizers has been learned. The correct use of basic, starter and head fertilizers has been replaced.

OPINIONS ABOUT THE FOLIAGE MICROELEMENT REPLACEMENT

- » They do not believe in the efficiency of foliar fertilizers.
- » Generalize all kinds of liquid preparations for use in leaves.

Solution:

- ✓ The different formulations and their effectiveness (bacterial fertilizers, biostimulants, plant conditioners, foliar fertilizers, etc.) must be handled and known.
- ✓ The correct application of foliar fertilizers must be learned.

FITOSERVICE – THE RENEWABLE LEAF ANALYSIS!

A system that includes leaf analysis, consulting and a complete offer. A suite of services based on leaf analysis, where, after personalized research, our consultants use a program to provide a nutrient supply offer through the leaf.

BENEFITS

- ✓ Comprehensive service in the field, plantations and horticulture
- ✓ More than 50 types of cultivated plants nutrient testing is provided
- ✓ National coverage.
- ✓ Our consultants are professionals.
- ✓ Complete, controlled content complex foliar fertilizer supply.
- ✓ Study accepted in AKG program.



Test data from consecutive years provide an important basis for comparison and significantly increase the reliability of leaf analysis.

Hundreds of plant studies carried out in recent years have in many cases yielded surprising results. Although leaf analysis can be considered as a snapshot of the complex development process of plants, evaluating the results of samples together with soil test results and nutrient supply and agrotechnical interventions already made, very valuable relationships have been found, which are the correct conclusions. After deduction, they have contributed significantly to improving either the qualitative or the quantitative parameters of a given culture. Leaf analysis can thus be useful not only in plants showing symptoms of deficiency, but in fact wherever we want to grow healthier, more resistant plants, or produce higher yields and better quality crops.

FITOSERVICE offers accredited examination of the most important macro and micro elements of leaf samples: N, P, K, Ca, Mg, Cu, Zn, Mn, Fe, S and B

The value of leaf analysis data is highly dependent on correct sampling, method and time of sampling. Consult our consultants for the most accurate information.




FIELD



FOR ARABLE LAND CULTURES

COMPOSITION OF PRODUCTS

Multi-active solution fertilizers (w / v%)		N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	Field dose
		%	%	%	%	%	%	%	%	%	%	%	%	l/ha
1	FitoHorm Grain	18	-	-	-	-	-	-	0,25	1,5	0,25	-	0,002	4-5
2	FitoHorm Bio Grain	-	-	-	-	-	-	0,5	1	1,8	0,3	0,3	0,03	4-5
3	FitoHorm Corn Plus	19	-	-	-	6	-	0,15	0,06	0,006	1,9	0,013	0,003	4-5
4	FitoHorm Oil plant	18	-	-	-	6	-	-	-	-	-	4	0,04	4-5
5	FitoHorm Grapes-Fruit	-	-	-	-	-	-	3,2	0,32	0,15	0,15	0,31	0,03	4-5
6	FitoHorm Vegetable	18	-	-	5	13,5	-	-	0,2	-	-	0,2	0,004	4-5
7	MACROSOL	8	4	5	-	-	-	-	-	-	-	-	-	4-5
8	MicroMax	-	-	-	-	-	-	3	1,32	0,15	0,23	0,26	0,07	2-3
9	FitoHorm Soy	-	-	-	-	-	-	0,4	0,5	0,5	1,5	0,5	0,3	2-3

Solution fertilizers with high active ingredient content (w / v%)		N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	Field dose
		%	%	%	%	%	%	%	%	%	%	%	%	l/ha
1	Polyboron140	-	-	-	-	-	-	-	-	-	-	14	-	2-3
2	Polyboron Plus	-	-	-	-	-	-	-	-	0,15	0,15	12,5	0,03	2-3
3	FitoHorm Turbo Nitrogen	30	-	-	3	6,5	-	-	-	0,01	-	-	-	10-15
4	FitoHorm Turbo Sulfur	20	-	-	-	60	-	-	-	-	-	-	-	2-3
5	FitoHorm Turbo Potassium	4	-	36	-	57	-	-	-	-	-	-	-	2-3
6	FitoHorm Turbo Calcium	13,5	-	9	3	-	15	-	-	-	-	-	-	3-5
7	FitoHorm Turbo Copper	20	-	-	-	11,5	-	-	-	8	-	-	-	2-3
8	FitoHorm Turbo Zinc	-	-	-	-	-	-	-	-	-	10	-	-	2-3
9	FitoHorm Turbo Manganese	-	-	-	-	-	-	-	8	-	-	-	0,5	2-3
9	FitoActive 	-	-	-	6,6	10,6	-	-	-	-	-	-	-	4-5

Starter solution fertilizers (w / v%)		N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	Field dose
		%	%	%	%	%	%	%	%	%	%	%	%	l/ha
1	FitoHorm Turbo Start	11	23	-	-	-	-	0,025	-	0,003	0,3	0,017	0,0014	3-5
3	FitoHorm Turbo Magnesium	4	35	-	10	-	-	-	-	-	-	-	-	2-3
4	FitoHorm Turbo Macro	18	18	18	-	-	-	-	-	-	-	-	-	3-4

COMPOSITION OF PRODUCTS

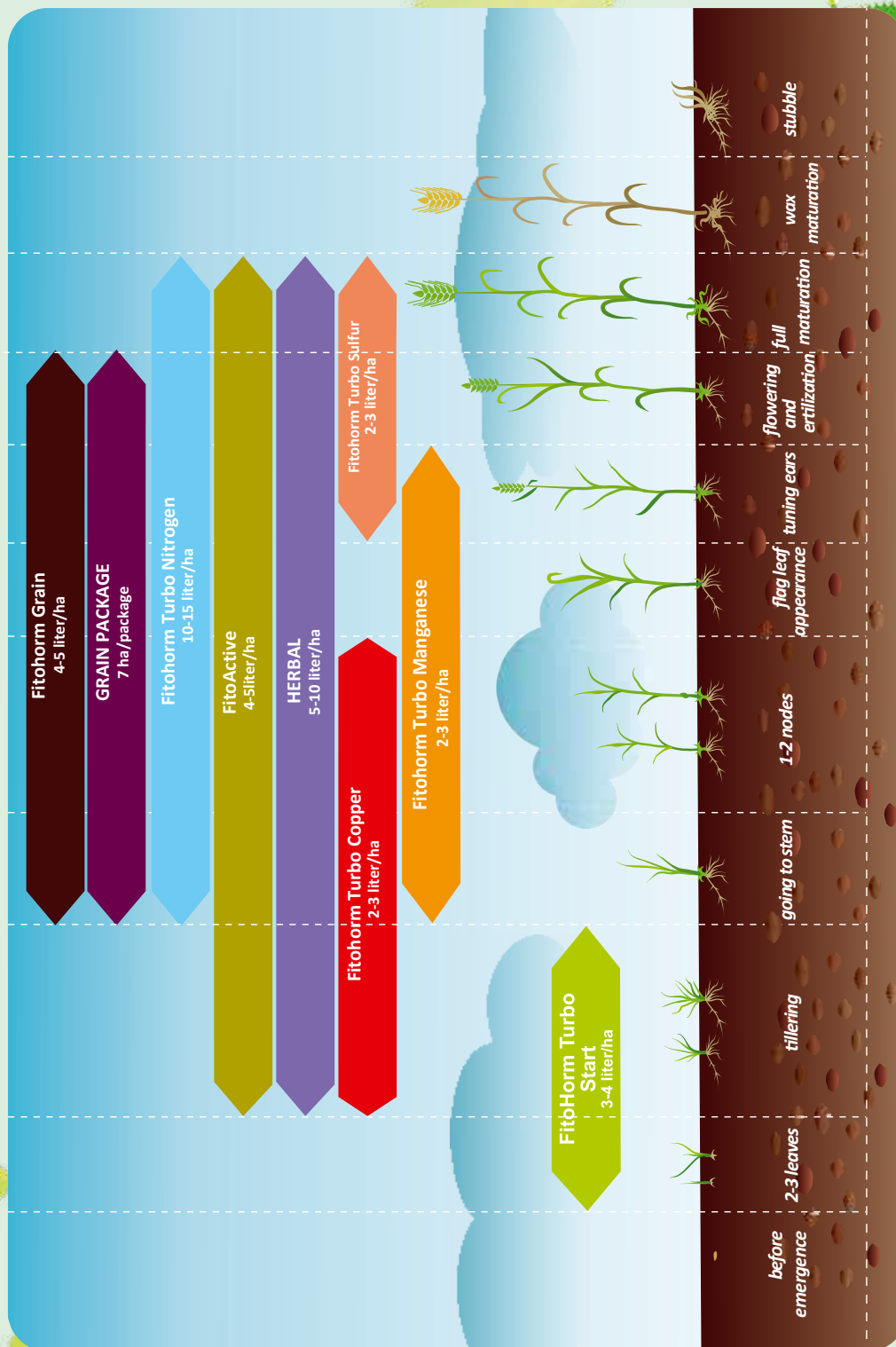
Mono-element solution fertilizers (w / v%)		Composition(%)				Field dose
						l/ha
1	FitoHorm 10 B	Boron solution	B	2,5		3-4
2	FitoHorm 14 N	Nitrogen solution	N	35		5-10
3	FitoHorm 24 Mg	Magnesium solution	MgO	6,6	+ SO ₃ 10,6%	5-10
4	FitoHorm 30 P	Phosphorus solution	P ₂ O ₅	18	+ N 7%	5-10
5	FitoHorm 39 K	Potassium solution	K ₂ O	9	+ P ₂ O ₅ 6% + N 3%	5-8
6	FitoHorm 40 Ca	Calcium solution	CaO	21	+ N 12%	5-7
7	FitoHorm 40 Ca (nitrogen free)	Calcium solution	CaO	17		5-7
8	FitoHorm 54 Mn	Manganese solution	Mn	4		3-5
9	FitoHorm 55 Fe	Iron solution	Fe	4		3-5
10	FitoHorm 63 Cu	Copper solution	Cu	4		4
11	FitoHorm 65 Zn	Zinc solution	Zn	4		3-6
12	FitoFerr T-3 for soil management	Iron solution	Fe	3		50-100 ml/vine

Plant conditioners		Composition				Field dose
						l/ha
1	HERBÁL	Multi-phase, biologically high organic matter.				5-10

Seed fertilizer (m/v %)		N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	Seed dose
		%	%	%	%	%	%	%	%	%	%	%	%	l/t
1	FitoHorm MagMAX	-	-	-	-	-	-	-	1,3	-	2,5	0,2	0,1	4-5

Inhibitors		Composition	Field dose For 100 l Nitosol
1	Nitrifin	Soil improver containing nitrification inhibitor Active substance: DMPP	1 l
2	Ureafin	Soil improver containing a urease inhibitor Active substance: NBPT	1 dl

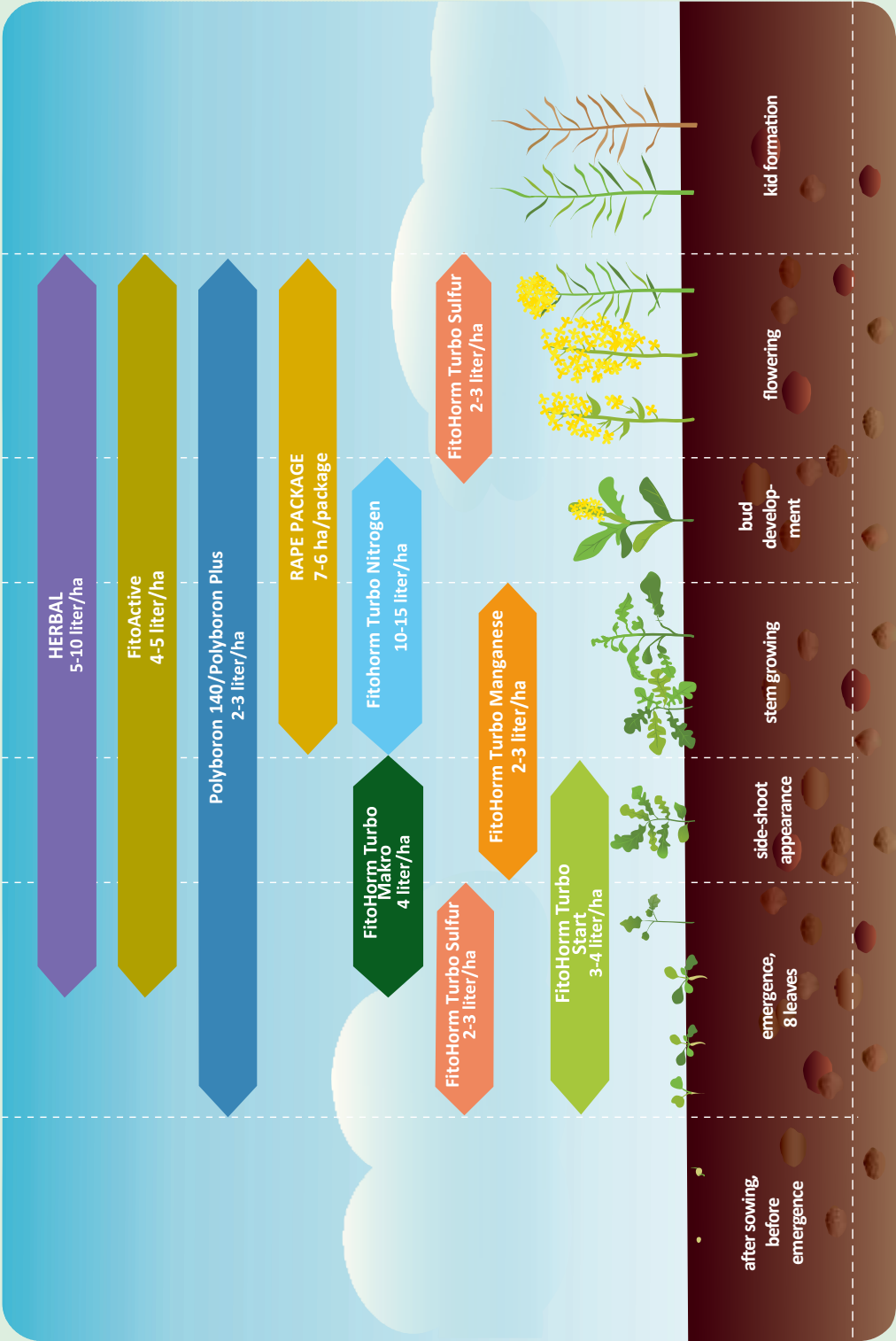
CEREALS



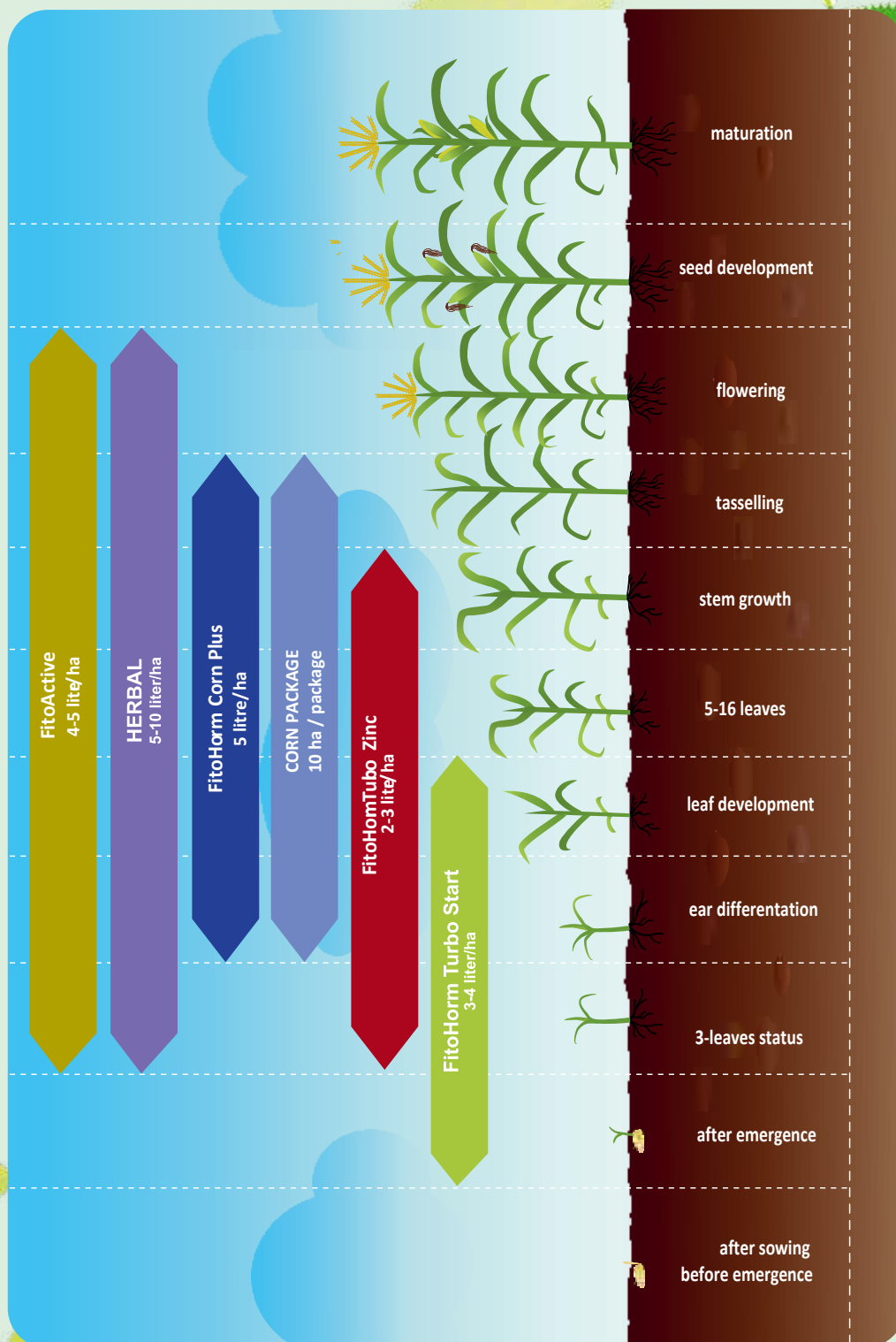
Regarding the combined use of the different products recommended for each phenological state, always make a mixing test or contact our competent consultants!

AUTUMN COLESEED

Regarding the combined use of the different products recommended for each phenological state, always make a mixing test or contact our competent consultants!



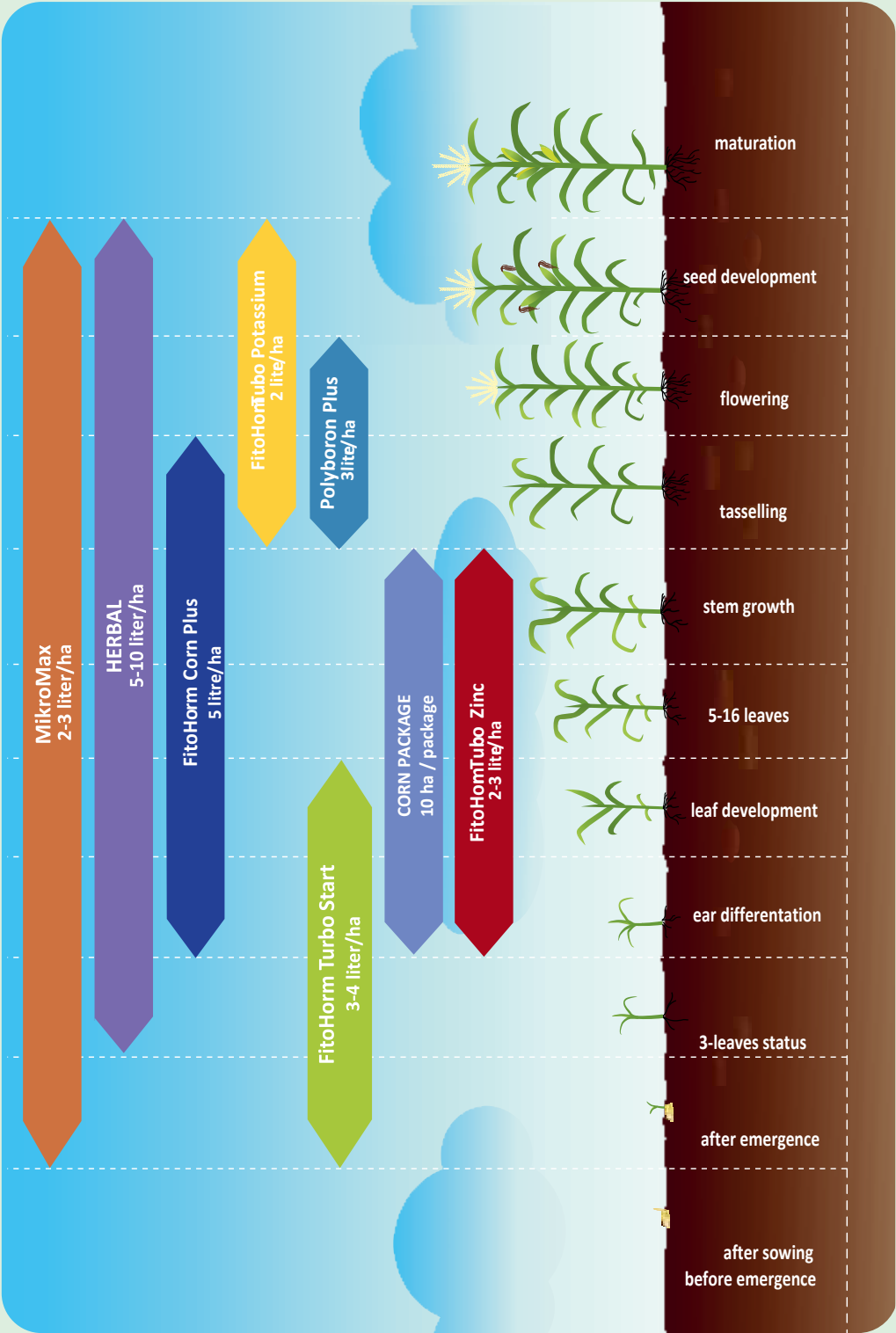
CORN



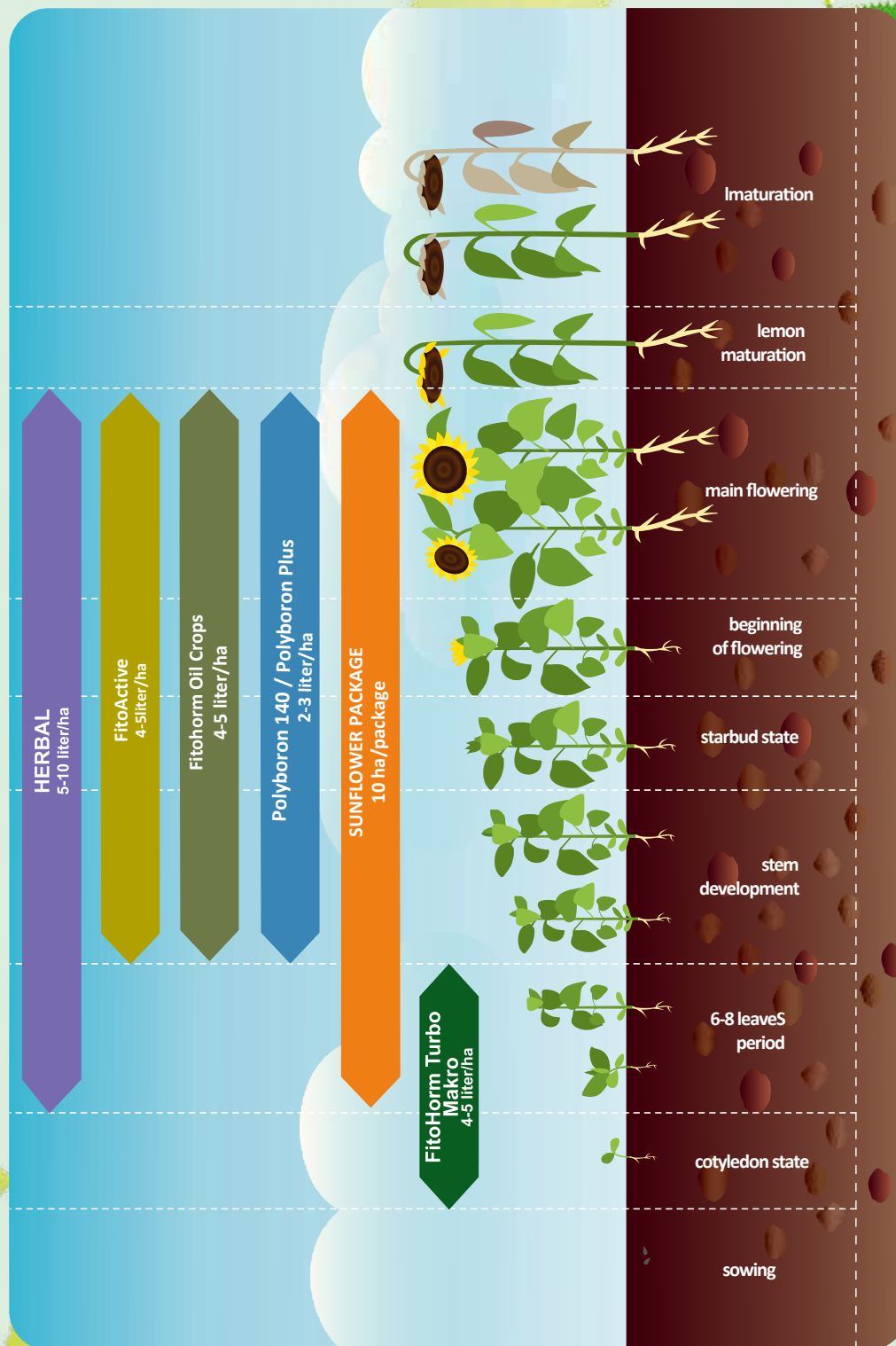
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SWEETCORN

Regarding the combined use of the different products recommended for each phenological state, always make a mixing test or contact our competent consultants!



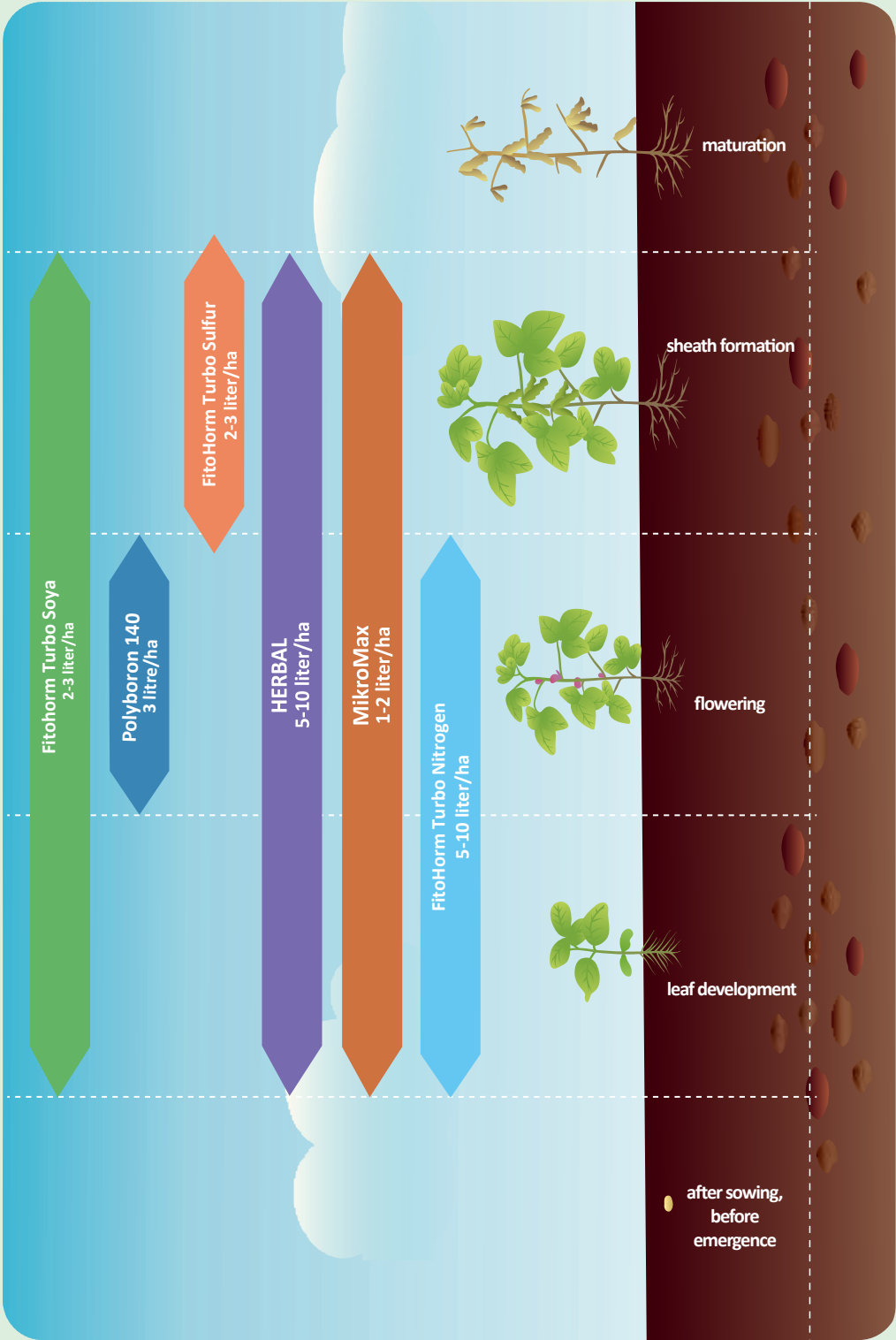
SUNFLOWER



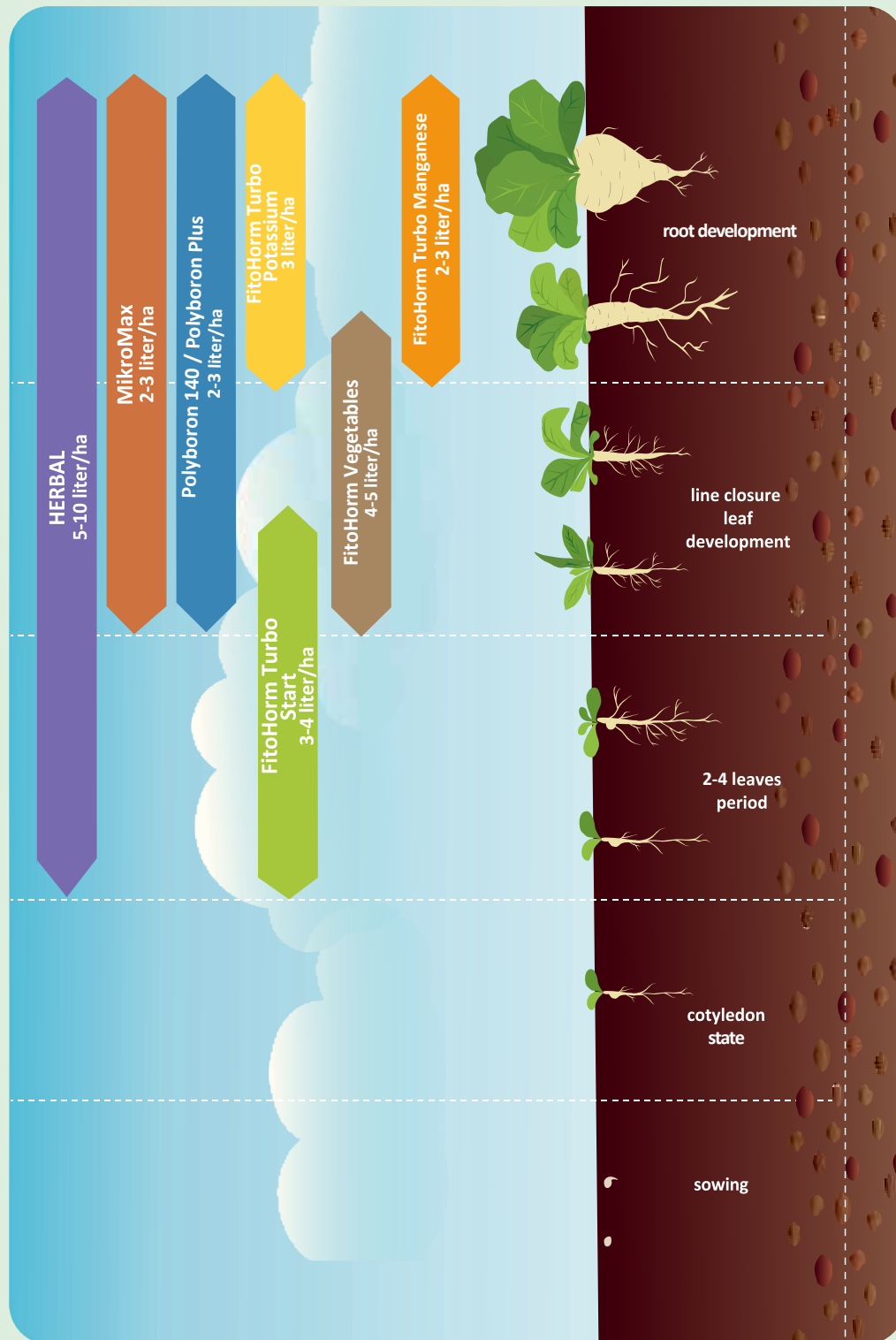
Regarding the combined use of the different products recommended for each phenological state, always make a mixing test or contact our competent consultants!

SOYA, BEANS, PEAS

Regarding the combined use of the different products recommended for each phenological state, always make a mixing test or contact our competent consultants!



SUGAR BEET



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HORTI- CULTURE



FOR HORTICULTURAL CULTURES

COMPOSITION OF PRODUCTS

High Fertilizer Solution Fertilizers (w/v %)		N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	plantation dose	Horticultural dose
		%	%	%	%	%	%	%	%	%	%	%	%	%	l/ha
1	Polyboron 140	-	-	-	-	-	-	-	-	-	-	14	-	0,5-1,5	3-5
2	Polyboron Plus	-	-	-	-	-	-	-	-	0,15	0,15	12,5	0,03	0,5-1,5	3-5
3	FitoHorm Turbo Nitrogen	30	-	-	3	6,5	-	-	-	0,01	-	-	-	0,5-1,5	12-18
4	FitoHorm Turbo Magnesium	4	35	-	10	-	-	-	-	-	-	-	-	0,5-1,5	3-5
5	FitoHorm Turbo Sulfur	20	-	-	-	60	-	-	-	-	-	-	-	0,5-1,5	3-5
6	FitoHorm Turbo Potassium	4	-	36	-	57	-	-	-	-	-	-	-	0,5-1,5	3-5
7	FitoHorm Turbo Calcium	13,5	-	9	3	-	15	-	-	-	-	-	-	0,5-1,5	4-6
8	FitoHorm Turbo Copper	20	-	-	-	11,5	-	-	-	8	-	-	-	0,5-1,5	3-5
9	FitoHorm Turbo Zinc	-	-	-	-	-	-	-	-	-	10	-	-	0,5-1,5	3-5
10	FitoHorm Turbo Makro	10	10	10	-	-	-	-	-	-	-	-	-	0,5-1,5	5-7
11	FitoActive 	-	-	-	6,6	10,6	-	-	-	-	-	-	-	0,5-1,5	5-7
Multi-fertilizer solution fertilizers (w/v %)		N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	Plantation dose	Horticultural dose
		%	%	%	%	%	%	%	%	%	%	%	%	%	l/ha
1	MikroMax	-	-	-	-	-	-	3	1,32	0,15	0,23	0,26	0,07	0,5-1,5	3-5
2	MAKROSOL	8	4	5	-	-	-	-	-	-	-	-	-	0,5-1,5	5-7
3	FitoHorm Evergreen	20	-	-	3	11	-	0,5	-	-	-	-	-	-	5-7
4	FitoHorm Grapes-Fruits	-	-	-	-	-	-	3,2	0,32	0,15	0,15	0,31	0,03	0,5-1,5	5-7
5	FitoHorm Vegetable	18	-	-	5	13,5	-	-	0,2	-	-	0,2	0,004	0,5-1,5	5-7

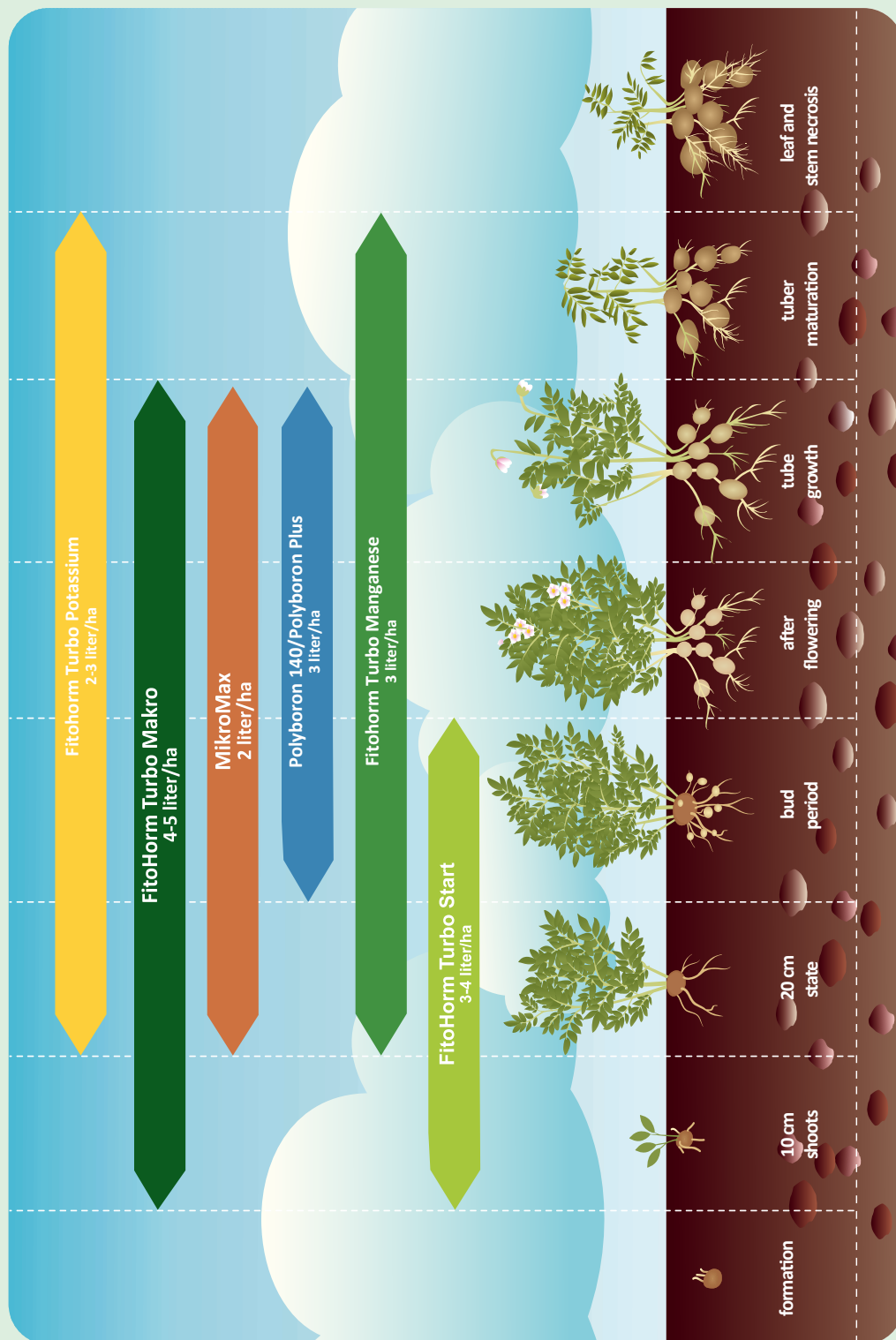
COMPOSITION OF PRODUCTS

Mono Elemental Fertilizers (w/v %)		Composition(%)				Plantation dose	Horticultural dose
						%	l/ha
1	FitoHorm 10 B	Bóroldat	B	2,5		0,5-1,5	4-6
2	FitoHorm 14 N	Nitrogénoldat	N	32		0,5-1,5	10-15
3	FitoHorm 24 Mg	Magnéziumoldat	MgO	6,6	+ SO ₃ 10,6%	0,5-1,5	10-15
4	FitoHorm 30 P	Foszfóróldat	P ₂ O ₅	18	+ N 7%	0,5-1,5	10-15
5	FitoHorm 39 K	Káliumoldat	K ₂ O	9	+ P ₂ O ₅ 6% + N 3%	0,5-1,5	8-10
6	FitoHorm 40 Ca	Kalciumoldat	CaO	21	+ N 12%	0,5-1,5	7-9
7	FitoHorm 40 Ca (nitrogen free)	Kalciumoldat	CaO	17		0,5-1,5	7-9
8	FitoHorm 54 Mn	Mangánoldat	Mn	4		0,5-1,5	5-7
9	FitoHorm 55 Fe	Vasoldat	Fe	4		0,5-1,5	5-7
10	FitoHorm 63 Cu	Rézoldat	Cu	4		0,5-1,5	6
11	FitoHorm 65 Zn	Cinkoldat	Zn	4		0,5-1,5	6-8

Solid, irrigating fertilizers (m/m %)		N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	Horticultural dose
		%	%	%	%	%	%	%	%	%	%	%	%	tápoldatnak 100l vízbe
1	FitoHorm Complex Plus	14	7	21	-	22	-	0,165	0,032	0,017	0,02	0,01	0,002	0,5%
2	FitoHorm Evergreen lawn NEW!	12	5	5	2	38	-	3,5	-	-	-	-	-	1-2%

Iron chelates (w/v %)		Iron content	Plantation dose	Horticultural dose
1	FitoFerr T-3 for soil treatment	3	50-100 ml/vine	50-100 ml/vine

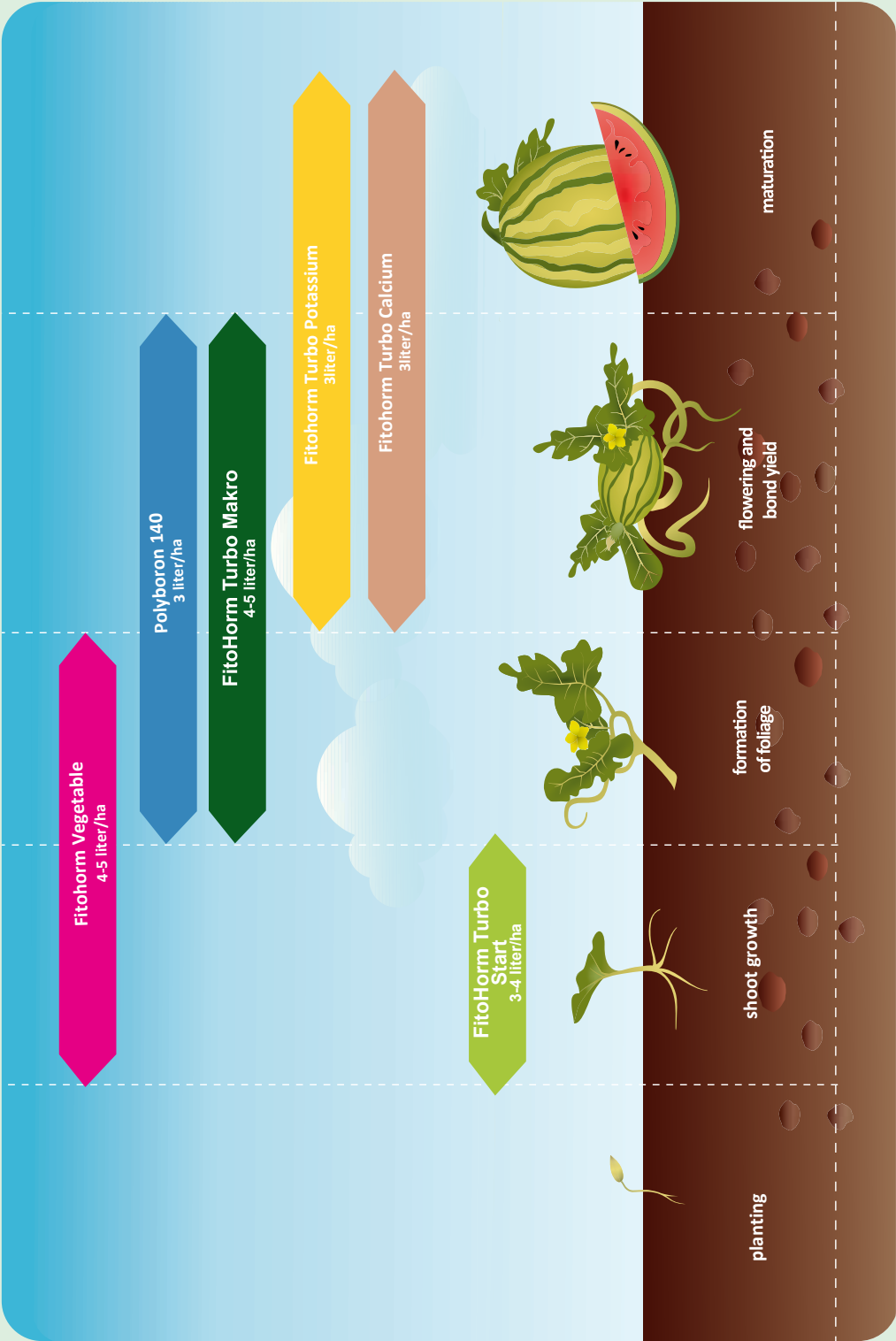
POTATO



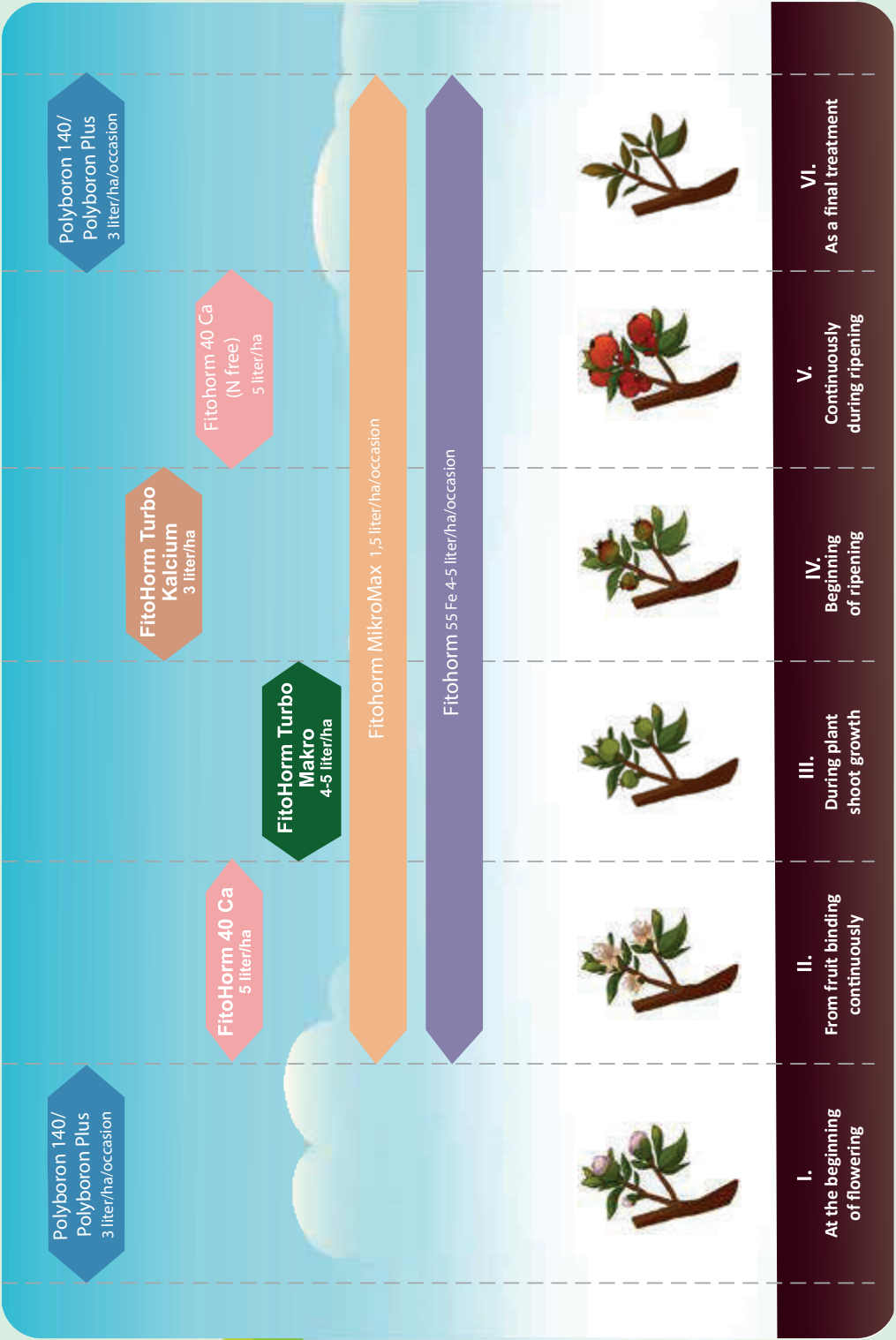
Regarding the combined use of the different products recommended for each phenological state, always make a mixing test or contact our competent consultants!

CUCURBITS

Regarding the combined use of the different products recommended for each phenological state, always make a mixing test or contact our competent consultants!








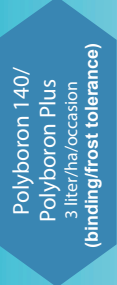



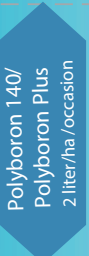



APPLE









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PEACH, APRICOT AND PLUM

Regarding the combined use of the different products recommended for each phenological state, always make a mixing test or contact our competent consultants!

 I. At the beginning of flowering	 II. At the appearance of foliage	 III. During plant shoot growth	 IV. Beginning of ripening	 V. As a final treatment
 Polyboron 140/ Polyboron Plus 3 liter/ha/occasion (binding/frost tolerance)	 FitoHorm Turbo Start 3-4 liter/ha	 FitoHorm Turbo Calcium 4 liter/ha	 FitoHorm Complex Plus 3 kg/ha	 Polyboron 140/ Polyboron Plus 2 liter/ha /occasion
 Mikromax 2 liter/ha/occasion				
 FitoActive 4-5 liter/ha				
 FitoHorm 55 Fe 4-5 liter/ha				






CHERRY AND SOUR CHERRY

 <p>Polyboron 140/ Polyboron Plus liter/ha /occasion</p>	 <p>Fitohorm Turbo Zinc 2-3 liter/ha</p>	 <p>Fitohorm Turbo Calcium 4 liter/ha</p>	 <p>Fitohorm Turbo Nitrogen 10 - 15 liter/ha</p>	 <p>Polyboron 140/ Polyboron Plus liter/ha /occasion</p>	 <p>Fitohorm Turbo Zinc 2-3 liter/ha</p>
<p>Fitohorm Turbo Start 3-4 liter/ha</p>					

Regarding the combined use of the different products recommended for each phenological state, always make a mixing test or contact our competent consultants!

GRAPE

Regarding the combined use of the different products recommended for each phenological state, always make a mixing test or contact our competent consultants!

				
I. Before and during flowering	II. During intensive plant shoot growth	III. During berry growth	IV. During ripening	V. During ripening
Polyboron 140/ Polyboron Plus 2-3 liter/ha/occasion	FitoHorm Turbo Start 3-4 liter/ha	Mikromax 2 liter/ha/occasion	FitoHorm Turbo Calcium-5 4 liter/ha	Polyboron 140/ Polyboron Plus 2-3 liter/ha/occasion
	FitoA ctive 4-5 liter/ha	FitoHorm 55 Fe 5 liter/ha	FitoHorm Grapes and Fruit 4-5 liter/ha	FitoHorm Turbo Potas si um 2-3 liter-/ha

The AGRICULTURAL ECOLOGY PROGRAM will start in 2023



**AÖP
+ 1p**

Use our HERBAL product for AÖP support,
and get extra points!

*For more information, visit our website:
www.fitohorm.hu/aop*

HOBBY



FOR HOUSE PLANT, LEAF AND FLOWER ORNAMENTAL PLANT CULTURES

Multi-fertilizer solution fertilizers (w/v%)		N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	Dose (ml/10 l water)	
		%	%	%	%	%	%	%	%	%	%	%	%	foliage treatment	watering
1	MicroMax	-	-	-	-	-	-	3	1,32	0,15	0,23	0,26	0,07	60-80	20
2	MACROSOL	8	4	5	-	-	-	-	-	-	-	-	-	100-200	20
3	FitoHorm Evergreen	20	-	-	3	11	-	0,5	-	-	-	-	-	100-160	100
4	FitoHorm Grapes-Fruits	-	-	-	-	-	-	3,2	0,32	0,15	0,15	0,31	0,03	100-160	20
5	Polyboron Plus	-	-	-	-	-	-	-	-	0,15	0,15	12,5	0,03	100-160	20
Multi-active formulations for house and ornamental plants (w/v %)		N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	Dose (ml/10 l water)	
		%	%	%	%	%	%	%	%	%	%	%	%	foliage treatment	watering
1	FitoHorm Geranium	6	5	6	-	-	-	-	-	-	-	-	-	100	20
2	FitoHorm Leaf Ornamental plant	8	4	5	-	-	-	-	-	-	-	-	-	100	20
3	FitoHorm Flower Favourite Universal	6	6	6	-	-	-	-	-	-	-	-	-	100	20
4	FitoHorm Oleander	8	4	5	-	-	-	-	-	-	-	-	-	100	20
Solid, irrigating fertilizers (w/m %)		N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	Horticultural dose	
		%	%	%	%	%	%	%	%	%	%	%	%	solution 100 l of water	
1	FitoHorm Complex Plus	14	7	21	-	22	-	0,165	0,032	0,017	0,02	0,01	0,002	0,1-0,2 kg	
2	FitoHorm Evergreen lawn	12	5	5	2	38	-	3,5	-	-	-	-	-	0,3-0,4 kg	
Iron chelates (w/v %)		Iron content												Horticultural dose	
1	FitoHorm T-3 soil treatment (Iron solution)	3												50-100 ml/tôke	

ORGANIC FARMING



ORGANIC FARMING AND FITOHORM

Organic farming or ecological farming, as the farmers call it, is a carefully planned cultivation system where the use of synthetically produced chemicals and fertilizers is prohibited, while the use of natural active ingredients and minerals is necessary and recommended, as well as physical clearance, and the careful individual plant care. The basic principle of ecological farming is to continue the production of economic plants and animals in such a way as to make the best possible use of the ecological properties of the place of production, while at the same time making the least possible intervention in the local ecosystem and in no way harming or polluting it. **FitoHorm chelates are completely natural.** The characteristics of the growing area, the soil properties, the climate, the available water sources, the natural plant cover (remains) must first be accurately known in order to be able to use and protect our plants. Animals in the area can help a lot in plant protection and maintaining soil strength.

During cultivation, synthetic materials must not be used for any purpose and not even under "force". Efforts must be made to reduce energy consumption, use different organic wastes and renewable sources, giving priority to locally available sources. Pay attention to the effect these have on our plants, e.g. pentosan effect, zinc deficiency, since these can be prevented, there is no need to be afraid of them, because we can counter them with FitoHorm products. The cultivated plants must be selected taking into account the characteristics of the area, sometimes it is difficult to ensure the balanced development of the plants. In this situation, FitoHorm products can be used with great efficiency and it is possible to avoid that plant protection in degraded stands becomes intractable.

FitoHorm's organic products help plant protection and ensure quality goods at the same time.



FOR ORGANIC FIELD AND HORTICULTURAL CULTURES

COMPOSITIONS OF PRODUCTS

Multi-fertilizer solution fertilizers (w/v %)		N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	Arable dose	Horticultural dose (ml/10 l water)	
		%	%	%	%	%	%	%	%	%	%	%	%	%	l/ha	foliage treatment
1	FitoHorm Bio Grain	-	-	-	-	-	-	0,5	1	1,8	0,3	0,3	0,03	4-5	-	-
2	FitoHorm Soy	-	-	-	-	-	-	0,4	0,5	0,5	1,5	0,5	0,3	2-3	-	-
3	FitoHorm Grape-Fruit	-	-	-	-	-	-	3,2	0,32	0,15	0,15	0,31	0,03	4-5	100-160	20
4	MicroMax	-	-	-	-	-	-	3	1,32	0,15	0,23	0,26	0,07	2-3	60-80	10
Solution fertilizers with a high active ingredient content (m/v %)		N	P ₂ O ₅	K2O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo	Arable dose	Horticultural dose (ml/10 l water)	
		%	%	%	%	%	%	%	%	%	%	%	%	%	l/ha	foliage treatment
1	Polyboron 140	-	-	-	-	-	-	-	-	-	-	14	-	2-3	40-60	10
2	Polyboron Plus	-	-	-	-	-	-	-	-	0,15	0,15	12,5	0,03	2-3	40-60	10
3	FitoHorm Turbo Zinc	-	-	-	-	-	-	-	-	-	10	-	-	2-3	80-160	20
Monoelement solution fertilizers (w/v %)		Composition												Arable dose	Horticultural dose (ml/10 l water)	
														l/ha	foliage treatment	irrigation
1	FitoHorm 10 B	Boron solution					B	2,5					3-5	100-200	10-50	
2	FitoHorm 40 Ca (nitrogen free)	Calcium solution					CaO	17					5-7	100-200	10-50	
3	FitoHorm 54 Mn	Manganese solution					Mn	4					3-5	100-200	10-50	
4	FitoHorm 55 Fe	Iron solution					Fe	4					3-5	100-200	10-20	
5	FitoHorm 63 Cu	Copper solution					Cu	4					4	100-200	10-50	
6	FitoHorm 65 Zn	Zinc Solution					Zn	4					3-6	100-200	10-20	
Iron chelates (w/v %)		Iron content												Arable dose l/ha)	Horticultural dose (ml/10 l water)	
1	FitoFerr T-3 for soil treatment	3												50-100 ml/vine	50-100 ml/vine	
Plant conditioners		Composition												Arable dose (l/ha) 5-10		
1	HERBAL	Multi-phase, biologically outstanding organic materials.														

Fito Horm[®]

...AMI TERMÉSZETESEN JÁR A NÖVÉNYNEK.

SOLUTION FROM THE EXPERT OF THE FOLIAGE FERTILIZER **FITOHORM TURBO MANGANESE**



FITOHORM TURBO MANGANESE

dose: 2-3 liter/ha

THREE REASONS TO USE:

It enhances the photosynthesis of the plant

It improves flower and fruit formation

Quality content



PRODUCTS

> GRAIN

It is one of the most popular products of Hungarian foliar fertilization, which maintains its leading role in the nutrition of ear plants to this day. It is a multi-active, complex preparation that can ensure the nutritional supply of grains when used in any phenological phase. When compiling the content of meso- and microelements, we focused on those nutrients (S, Cu, Mn, N, Zn), which are needed in larger quantities by the ear plants during their development.

In addition to the meso- and microelements, the FitoHorm Grain solution fertilizer contains a modern chelating agent, this formulation ensures the fast and efficient absorption of the microelements through the leaves. The big advantage of the targeted nutrient supply realized by foliar fertilization is that we feed the specific culture in the given year, and that we can moderate the adverse weather effects.

Composition												
	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	15	-	-	-	4	-	-	0,2	1,25	0,2	-	0,0016
m/v%	18	-	-	-	5	-	-	0,25	1,5	0,25	-	0,002
g/l	180	-	-	-	50	-	-	2,5	15	2,5	-	0,02
Chelating agent: EDDHSA												

Advantages of use:

- » Plant-specific, appropriate microelement composition in an ideal ratio,
- » provides a harmonious supply of nutrients,
- » liquid, immediately absorbable form (nutrients in real solution)

Directions for use	
Area of use	Dose
Arable land	4-5 liters/ha when bushing and/or flowering.



Applied independently or in one pass with plant protection works.



Suitable for drone use



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.

To be used only in justified cases. Do not exceed the recommended dosage.

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> BIO GRAIN

FitoHorm Bio Grain contains essential microelements for grain in the right proportion in a complex, exceptionally high concentration and in large quantities.

The product contains only microelements. In addition to the microelements, the solution fertilizer contains a modern chelating agent, which ensures the quick and perfect absorption of the microelements through the leaves.

It can be recommended to all farmers who do not want to spend much on foliar fertilizers, but want to solve the replacement of microelements safely. Foliar fertilization provides targeted nutrient supply. The effects of unfavorable weather conditions can be effectively mitigated, the tendency to bushiness is strengthened by adequate microelement supplementation in the early phenological phase.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	0,46	0,83	1,5	0,25	0,25	0,025
m/v%	-	-	-	-	-	-	0,5	1	1,8	0,3	0,3	0,03
g/l	-	-	-	-	-	-	5	10	18	3	3	0,3
Chelating agent: EDDHSA												

Advantages of application:

- » Applied in autumn/early spring, the number of fertile ears increases
- » the water balance improves and the root system's ability to extract nutrients increases,
- » even organic farmers can get the most out of their grain
- » It can also be perfectly mixed and applied with UAN solutions.

Directions for use

Area of use	Dose
Arable land	4-5 liters/ha when bushing and/or flowering.

1

Applied independently or in one pass with plant protection works.

Suitable for drone use

It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.

In the case of foliar fertilization, the basic rules of spraying must also be observed.

To be used only in justified cases.
Do not exceed the recommended dosage.



FitoHorm

> FITOACTIVE

FitoActive foliar fertilizer is a modern bitter salt solution, which is an excellent product on the sulfur and magnesium replacement market in terms of its usability, efficiency and price-value ratio. The EDDHSA chelating agent used in its production improves the absorption of magnesium by orders of magnitude, as well as the physical and chemical properties of the solution.

Its regular use increases the photosynthesis activity of the leaves, increases nitrogen uptake and incorporation, and improves the condition and content values of the treated cultures. Effectively treats the symptoms of sulfur and magnesium deficiency. It can be mixed perfectly with both plant protection products and other foliar fertilizers.

It can be used in all cultures from the appearance of the green plant parts to the beginning of autumn leaf yellowing at a dose of 5-10L/ha.

Composition												
	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	5,28	9	-	-	-	-	-	-	-
m/v%	-	-	-	6,6	10,6	-	-	-	-	-	-	-
g/l	-	-	-	66	106	-	-	-	-	-	-	-
Chelating agent: EDDHSA												

Advantages of application:

- » The greening power increases the activity of photosynthesis,
- » strengthens rooting and the formation of flower organs, as well as the healthy development of the germ within the seed,
- » increases the dry matter content of plants and moderates drought damage,
- » It can also be mixed with UAN solutions.

Directions for use	
Area of use	Dose
Arable land	for foliar fertilization: 5-10 l/ha/occasion
Horticulture Home garden	1-2% concentration (1-2 dl/10 l water)



Applied independently or in one pass with plant protection works.



Treatments can be repeated 2-6 times during the growing season, depending on the degree of nutrient deficiency.



Suitable for drone use

It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.



In the case of foliar fertilization, the basic rules of spraying must also be observed.



> MAGMAX

During germination, plants use nutrients and energy reserves stored in the seed. However, due to the rapid growth of the plant, there is a need for an external source of nutrients and energy. Fitohorm MagMAX contains micro- and macronutrients in the right ratio for germinating seeds. This is also supported by laboratory tests. The nutrients applied to the surface of the seeds during germination are used by the plant during germination, which helps in the initial development.

When creating the composition of the soil, we used microelements such as Zinc (Zn), which helps primary rooting, Boron (B) and Manganese (Mn), which play a key role in carbohydrate metabolism, and Molybdenum (Mo), which helps the uptake and integration of Nitrogen and Boron. . The dose used accelerates the seedling's clay metabolism, promotes the incorporation of nutrients that can be absorbed from the seed and the soil. Thanks to this, the root mass and stress tolerance increase.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	-	1	-	2	0,2	0,08
m/v%	-	-	-	-	-	-	-	1,3	-	2,5	0,24	0,1
g/l	-	-	-	-	-	-	-	13	-	25	2,4	1
Chelating agent: EDDHSA												

Advantages of application:

- » It can be perfectly mixed with other seed dressing, increases their adhesion and efficiency,
- » extremely high coloring effect of the product,
- » provides a continuous supply of nutrients a in initial development, even on compacted, airless, alkaline soils, thereby increasing the homogeneity of the sprouted plant stock.

Directions for use

Area of use	Dose
Seeding	4-5 liters per ton of seed, evenly applied to the surface of the seed with the required amount of water.

1

It can be applied to the surface of the seed alone or with weeding agents in one pass.



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.

To be used only in justified cases. Do not exceed the recommended dosage.



> HERBAL

By strengthening the root system, it promotes the utilization of nutrients, mineral salts and trace elements in the soil. **It accelerates the uptake of nutrients**, stimulates growth, thereby making the plant stronger and increasing its nutrient supply. By improving its water management, the plant makes good use of the uneven amount of rainfall, **HERBAL helps the vegetation through the temporary drier period.**

It strengthens the immune system and makes the plant resistant to different weather conditions. As a result, the strengthened plant tolerates strong sunlight and extreme conditions more easily.

Composition

	organic matter content	N	P ₂ O ₅	K ₂ O	Ca
m/v%	3,0	0,02	0,05	0,6	0,1
herbal extract, organic earthworm humus extract					

Advantages of application:

- » Stimulates plant growth, chlorophyll formation and respiration activity (more intensive photosynthesis)
- » strengthening the resistance of plants,
- » increases the plant strengthening function,
- » increases the biological activity of the soil, thereby ensuring the strong growth of the root system.
- activation of special, so-called secondary defense functions (phytoalexins),

Directions of use

Area of use	Dose
Arable land	In the amount of 5-10 l/ha, in a maximum concentration of 4%, applied 2 times during the growing season.

It can be used in the Agricultural Ecology Program, After using it, you get 1 point!

Way of use	Arable
Optional good jó practice	Application of soil conditioners, plant conditioners or N-fixing products on at least 50% of the arable land
Contribution to the environmental objective	The practice promotes the recovery of the soil's organic matter stock and the improvement of soil potential and soil biodiversity, thereby contributing to the reduction of nutrient loss and the improvement of the soil's water retention capacity. And healthier soil contributes to reducing the use of fertilizers and pesticides.



> CORN PLUS

A special foliar fertilizer specially made for corn, containing a complete line of microelements! The plant protection technology of corn and the dynamics of its development allow for little application. This small number of treatments usually "allows" an application period of 1-3 weeks, so it is important to be able to release as much content as possible for the plants in that 1 treatment.

FitoHorm Corn Plus also contains the nitrogen that necessary for dynamic development, the sulfur that necessary for the utilization of nitrogen, the zinc and copper that are necessary for the differentiation of the tubes. Iron and manganese provide the foundations for dynamic development with the help of stable, well-functioning photosynthesis. Boron helps the developmental processes that are essential for the development of flower organs with normal morphology. FitoHorm Corn Plus can ensure that purchased hybrids with high yield potential can show their inherent potential.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	15	-	-	-	5	-	0,125	0,05	0,005	1,5	0,01	0,0025
m/v%	19	-	-	-	6	-	0,15	0,06	0,006	1,9	0,013	0,003
g/l	190	-	-	-	60	-	1,5	0,6	0,06	19	0,13	0,03

Chelating agent: EDDHSA

Advantages of application:

- » It contains all the essentials elements that corn needs
- » improves water balance, pollen production and keeping the pistils moist,
- » helps perfect tube differentiation,
- » ensures good fruit set.

Directions for use

Area of use	Dose
In corn and sweet corn	4-5 litres/ha at the stage of 4-8 leaves and/or at the beginning of crown rot.



Applied independently or in one pass with plant protection works.



Suitable for drone use.

It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.



To be used only in justified cases. Do not exceed the recommended dosage.

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> MAKROSOL

MAKROSOL is a foliar fertilizer containing macroelements, with a favorable composition, specially prepared for plant conditioning. By using the product, it is possible to provide harmonious nutrient supply and improve the condition of plant cultures, ensuring quality while keeping economy in mind.

In those cases when through the foliage the replacement of macroelements is important, in which case MAKROSOL can help.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	6,6	3,3	4,16	-	-	-	-	-	-	-	-	-
m/v%	8	4	5	-	-	-	-	-	-	-	-	-
g/l	80	40	50	-	-	-	-	-	-	-	-	-
Chelating agent: EDDHSA												

Advantages of application:

- » The phosphorus found in the product is an essential constituent of plant cells,
- » strengthens rooting and the formation of flower organs,
- » As an activator of many enzymes, potassium enhances crop safety, frost tolerance, and disease resistance.

Directions of use

Area of use	Dose
Arable land	for leaf treatment: 5 liters / ha / occasion
Home garden	for leaf treatment: in a concentration of 1-2% (0.05 liters/100 m ²), 2-5 times together with the current sprayings, for soil treatment: before sowing or planting seedlings, apply 0.1 liter/100 m ² into the soil.



Applied independently or in one pass with plant protection works.



Suitable for drone use.



It can usually be used together with plant protection products, but we recommend checking the compatibility beforehand.

To be used only in justified cases. Do not exceed the recommended dosage.

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> MIKROMAX

MIKROMAX is the "Béres Drop" of plants, a real one "microelement bomb" that strengthens the immune system.

In the range of our newly developed products, by omitting the macronutrients (N, P, K), we aimed exclusively at the harmonic micronutrient supply (B, Cu, Fe, Mn, Mo, Zn).

As the name shows, it contains them in the largest possible amount, in the right proportion for the plants.

It can be applied through leaves in fields, in grape and fruit crops.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	2,4	1,0	0,12	0,18	0,2	0,05
m/v%	-	-	-	-	-	-	3	1,32	0,15	0,23	0,26	0,07
g/l	-	-	-	-	-	-	30	13,2	1,5	2,3	2,6	0,7

KChelating agent: EDDHSA

Advantages of use:

- » For horticultural crops and ornamental plants, it can be used for soil treatment, nutrient solution and foliage fertilization,
- » can also be used before or after seeding and planting,
- » also allowed in organic cultivation,
- » can be used in field crops throughout the growing season,
- » suitable for drone use: the recommended doses can be applied in 10 liters/ha of water.

Directions for use

Plant culture	Dose	Way of using
Grapes, olives, citrus fruits	2 - 3 l/ha	3 - 4 treatments from berry setting to harvest + 1 treatment after harvest
Fruit, berries, kiwi	2 - 3 l/ha	3 - 4 treatments from fruit setting to harvest + 1 treatment after harvest
Autumn, spring ears, rice	2 - 3 l/ha	1 treatment in the phenological stage between the end of bushing and earing
Vegetables, ornamental plants, ornamental trees, ornamental shrubs		soil treatment only: 3 - 5 ml / m ² (3 ml / 1 l of water)



Applied independently or in one pass with plant protection works.



Suitable for drone use.



It can usually be used together with plant protection products, but we recommend checking the compatibility beforehand.

To be used only in justified cases. Do not exceed the recommended dosage.

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> OIL PLANT

It is the key to the vitality and good condition of our oil plants, which, thanks to its complex composition, can be used in all phases of plant development. Its use significantly improves the effect and efficiency of applied plant protection products. Among the members of the FITOHORM product family, FitoHorm Oil Plant is specially designed to meet the nutritional needs of oil plants (rapeseed, sunflower)..

Its high boron and sulfur content ensures proper bonding, enhances oil synthesis and oil extractability. Boron has the most significant effect on flower and fruit formation, and sulfur has the most significant effect on the quantity and quality of the fruit. Applied independently or in one pass with plant protection works.

Composition												
	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	15	-	-	-	5	-	-	-	-	-	3	0,03
m/v%	18	-	-	-	6	-	-	-	-	-	4	0,04
g/l	180	-	-	-	60	-	-	-	-	-	40	0,4
Chelating agent: EDDHSA												

Advantages of use:

- » Plant-specific composition,
- » the nutrients in the product increase oil synthesis and oil extractability,
- » its high magnesium content plays an important role in the regulation of carbohydrate metabolism,
- » can be applied in one pass with plant protection works.

Direction for use	
Area of use	Dose
Sunflower	5 l/ha in the stage of 4-6 leaves and/or in the stage of star buds 3 liters at flowering
Rape	5 l/ha 5 l/ha from shoot formation to flowering virágzásig
Other oil plants	5 liters/ha at the beginning of flowering



Applied independently or in one pass with plant protection works.



Suitable for drone use.

It can usually be used together with plant protection products, but we recommend checking the compatibility beforehand.



To be used only in justified cases. Do not exceed the recommended dosage.



> SOY

The product contains the microelements necessary for the development of soy, peas, and beans in the right proportion. In the case of soy and peas, special attention must be paid to the supply of P, K, Mg, S and microelements. An excessive level of nitrogen supply can reduce the formation of root nodules of symbiotic bacteria. It is important to replace Nitrogen in the initial period until the symbiotic relationship is working.

The lack of molybdenum, the insufficient N-fixation of root tuber bacteria and the resulting N-deficiency symptoms in many cases mask all other symptoms resulting from Mo-deficiency.

Uncharacteristic symptoms include weaker growth, early flowering, reduced seed yield and death of whole plant parts.

In leguminous, the insufficient N-fixation of root tuber bacteria and the resulting N-deficiency symptoms can be caused by molybdenum deficiency. Molybdenum deficiency can be responsible for weaker growth, early flowering and the resulting reduced seed yield. The leaves show a pale green color typical of nitrogen deficiency.

In cabbages, molybdenum deficiency results in leaf and flower distortions.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	0,3	0,4	0,4	1,25	0,4	0,25
m/v%	-	-	-	-	-	-	0,4	0,5	0,5	1,5	0,5	0,3
g/l	-	-	-	-	-	-	4	5	5	15	5	3
Chelating agent: EDDHSA												

Advantages of use:

- » It contains essential elements for the establishment of symbiosis between leguminous plants and root tuber bacteria,
- » provides for the development of a strong shoot system enough nutrients,
- » Applied together with UAN solutions has particularly good efficiency.

Direction for use

Area of use	Dose
Soy	3 liters/ha 2-3 times during the growing season.

1

Applied independently or in one pass with plant protection works..



Suitable for drone use.

It can usually be used together with plant protection products, but we recommend checking the compatibility beforehand.



In the case of foliar fertilization, the basic rules of spraying must also be observed.

Do not exceed the recommended dosage.



FitoHorm

> GRAPES-FRUITS

It contains microelements in ideal proportions and quantities for grapes and fruit.

The most common microelement deficiency diseases can be prevented and remedied in all cultures with the continuous use of the product.

FitoHorm Grape Fruit supports the development and intensive shoot growth of young plantings

Thanks to its high boron content, it improves the fertilization and binding of flowers and reduces the frequency of flower drop. The iron in the preparation is present in an ideal form for the plants, since iron can be absorbed by the plant in the fastest and largest amount in the chelated form.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	2,6	0,26	0,125	0,125	0,25	0,025
m/v%	-	-	-	-	-	-	3,2	0,32	0,15	0,15	0,31	0,03
g/l	-	-	-	-	-	-	32	3,2	1,5	1,5	3,1	0,3

Chelating agent: EDDHSA

Advantages of use:

- » It has all the important microelements necessary for healthy fruit, which are needed in the plantation,
- » has an effective iron content, which can be picked up the fastest way,
- » thanks to its high boron content, it improves the fertilization and binding of flowers, as well as reduces the frequency of flower drop,
- » It can also be perfectly mixed with UAN solutions and their utilization can be increased,
- » It can also be used in organic farming.

Directions for use

Area of use	Dose
Grapes and other fruits	For leaf treatment: 3-5 l/ha/occasion. During the period of intensive shoot growth, spray on the foliage at a concentration of 1-2% and repeat every 2-3 weeks in conjunction with plant protection works.
Apple	For leaf treatment: 3-5 l/ha/occasion. After flowering until green maturity, sprayed on the foliage at a concentration of 1-2%, repeated every 2-3 weeks in conjunction with plant protection works.



Applied independently or in one pass with plant protection works..



Suitable for drone use..

It can be used together with plant protection products, but we recommend checking the compatibility beforehand



In the case of foliar fertilization, the basic rules of spraying must also be observed.

To be used only in justified cases. Do not exceed the recommended dosage.



> VEGETABLES

The special composition of the preparation brings vegetable plants into shape. Its microelement content stimulates strong hair root growth and, in the plants typical for this, the formation of tubers. When used with plant protection products with an absorbable effect, it helps them get into the plant and transport them within the plant.

It primarily strengthens the vigor of vegetables. By using FitoHorm Vegetables, we can ensure leaf conditioning, balanced development and high quality for vegetables.

After application, it strengthens the plant's photosynthesis and the transport of assimilates, which also strengthens the root system. The macro elements in it help the vegetables absorb the nutrients nitrogen, phosphorus and potassium in the soil. The microelements in the product contribute to the incorporation of large amounts of nutrients absorbed from the soil. As a result, the treated plants grow healthier and faster.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	14,4	-	-	4	10,8	-	-	0,16	-	-	0,16	0,003
m/v%	18	-	-	5	13,5	-	-	0,2	-	-	0,2	0,004
g/l	180	-	-	50	135	-	-	2	-	-	2	0,04
Chelating agent: EDDHSA												

Advantages of use:

- » After application, it strengthens the plant's photosynthesis and the transport of assimilates, as a result of which the root system is also strengthened,
- » the microelements found in the product contribute to the incorporation of large amounts of nutrients taken from the soil,
- » thus the treated plants grow healthier and faster.

Directions for use

Area of use	Dose
Arable land	for leaf treatment: 3 - 5 l/ha/occasion
Home garden	for leaf treatment: in a concentration of 1-2% (0.05 liters/100 m ²), 2-5 times together with the current sprays. for soil treatment: apply 0.1 liter/100 m ² to the soil before sowing or planting



Applied independently or in one pass with plant protection works.



Suitable for drone use.



It can be mixed with plant protection agents, but it is recommended to make a mixing test beforehand!

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> POLYBORON 140

It is one of the symbols of leaf fertilization in Hungary, which has maintained its defining role for many years thanks to its reliable and safe operation. The polyborate complex found in Polyboron 140 stimulates the generative processes, the growth and development of the pollen tube, increases the stability of the cell wall, and is therefore absolutely necessary for the life of plants.

Being an essential microelement, its presence is vital for all crops, especially oil crops, grape and fruit crops, and some vegetables.

BORON DEMANDING CULTURES: rape, sunflower, sugar beet, apple, cherry, sour cherry, peaches, cabbages.

Composition

	B
m/m%	10,8
m/v%	14
g/l	140

Advantages of use:

- » Its intake is most intensive at the beginning of vegetation
- » greatly improves winter resistance,
- » in its absence, fertilization is reduced and binding is hindered

Directions for use

Plant culture	Dose	Directions for use
Autumn coleseed	2 – 3 l/ha	In autumn and from stem initiation to the beginning of flowering
Sunflower	2 – 3 l/ha	From the stage of 4-6 leaves, in the stage of star buds until the beginning of flowering
Sugar beet	2 – 3 l/ha	4-6 leveles állapottól, gyökérnövekedéskor is koronaerősödéskor
Leguminous	2 – 3 l/ha	From the 3-leaf stage to the beginning of flowering
Poppy	2 – 3 l/ha	From the "hook stick" state to the beginning of flowering
Grape	1 – 2 l/ha	1 week before flowering and at maturity
Fruit	1 – 2 l/ha	Repeated 2-3 times every 2-3 weeks
Melon, Cucumber	1 – 2 l/ha	Repeated 3 times every 2-3 weeks
Paprika, Tomato	1 – 2 l/ha	For the treatment of plant stock
Tobacco	2 – 3 l/ha	For the treatment of plant stock



Applied independently or in one pass with plant protection works.



Suitable for drone use.



In the case of foliar fertilization, the basic rules of spraying must also be observed. The foliar fertilizer Polyboron 140 can be mixed perfectly with plant protection agents, it is a highly soluble solution fertilizer, it is recommended to make a mixing test before application.



> POLYBORON PLUS

In a special complex, the foliar fertilizer contains high amounts of boron and all microelements (molybdenum, manganese and copper) that are necessary for rapid integration.

It is important to know that boron is mostly used by plants in an organic bond through the leaves. Its intake is most intensive at the beginning of vegetation.

The effect of Polyboron Plus on flowering is enhanced and complex. When applied during the period of development of the flower organs, it stimulates their differentiation and forms well-developed flower formulas.

When applied before flowering, they have a very positive effect on the formation of pollen and improve fertility.

It helps the pollen adhere and provides energy to drive the pollen hose, thus ensuring perfect binding. Copper and zinc significantly influence the formation and development of generative organs through enzymatic processes. With the manganese in the product, we can prevent or inhibit the degradation of chlorophyll, thereby providing the energy needed for fertilization.

BORON DEMANDING CULTURES: rape, sunflower, sugar beet, apple, cherry, sour cherry, peaches, cabbages.

Composition

	Cu	Zn	B	Mo
m/m%	0,1	0,1	9,6	0,02
m/v%	0,15	0,15	12,5	0,03
g/l	1,5	1,5	125	0,3

Advantages for use:

- » When applied before flowering, it has a very positive effect on the formation of pollen, improves pollen fertility,
- » the molybdenum in it keeps the seed wet for a long time even in unfavorable conditions,
- » the copper and manganese in it significantly influence the formation and development of the generative organs through enzymatic processes.

Directions for use

Plant culture	Dose	Directions for use
Autumn coleseed	2 - 3 l/ha	In autumn and from stem initiation to the beginning of flowering
Sunflower	2 - 3 l/ha	from the stage of 4-6 leaves, in the stage of star buds until the beginning of flowering
Sugar beet	2 - 3 l/ha	from the 4-6 leaf stage, also during root growth and crown strengthenin
Leguminous	2 - 3 l/ha	from the stage of 3 leaves until the beginning of flowering
Grape	1 - 2 l/ha	from the "Hookstick" stage until the beginning of flowering
Fruit	1 - 2 l/ha	1 week before flowering and at maturity
Paprika, Tomato	1 - 2 l/ha	Repeated 2-3 times every 2-3 weeks



Applied independently or in one pass with plant protection works..



Suitable for drone use.



In the case of foliar fertilization, the basic rules of spraying must also be observed. The foliar fertilizer PolyboronPlus can be mixed perfectly with plant protection agents, it is a highly soluble solution fertilizer, it is recommended to make a mixing test before application.



> TURBO ZINC

FitoHorm Turbo Zinc ensures the normal growth of plants with its active ingredient. If the phosphorus content of the soil is high, it reduces the uptake of zinc.

By using the appropriate formulation, we can provide microelement replacement through the leaf. The zinc requirement of plants is usually minimal, but in certain cultures its use is very important.

It helps the tuber differentiation and rooting of corn.

In orchards and vineyards, it contributes to the normal development of shoots and leaves, improves woody growth, reduces sensitivity to frost and "winter branch death".

In soyand beans, the shedding of flowers and older leaves due to zinc deficiency can be reduced or eliminated.

ZINC DEMANDING CULTURES: corn, soy, grape, apricot, pear, cabbages

Compositio

	Zn
m/m%	8
m/v%	10
g/l	100

Advantages of use:

- » It helps the tuber differentiation and rooting of corn,
- » in orchards and vineyards, it contributes to the normal development of ,shoots and leaves
- » improves tree growth, reduces sensitivity to frost and "winter branch death",
- » zinc regulates nitrogen metabolism,
- » the high active ingredient content in FitoHorm Turbo Zinc is the maximum, which can be given to plants for Zn supplementation.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 2-3 l/ha/occasion
Horticultural, home garden	for foliar fertilization: in a concentration of 1-2 % (1 - 2 dl/10 l water) for nutrient solution: in a concentration of 0.05-0.2 % (0.5 - 2 l /1000 l water)



Applied independently or in one pass with plant protection works.



Treatments can be repeated 2-6 times during the growing season, depending on the degree of nutrient deficiency.



Suitable for drone use.



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.

To be used only in justified cases. Do not exceed the recommended dosage.

A lombtrágyázás esetén is be kell tartani a permetezés alapvető szabályait.



> TURBO CALCIUM

FitoHorm Turbo Calcium is a calcium fertilizer with a new philosophy developed in the spirit of cooperation. It contains calcium, magnesium and potassium in the most favorable ratio for plants. The nitrate content and formulation of the product stimulate the faster incorporation of cations into the plant.

Its components stabilize the water balance, enhance photosynthesis, enable the rapid and efficient absorption of nutrients, and basically improve the quality of the crop. In the case of vegetables/fruits, it is the basic nutrient for keeping it on the counter. The product provides a special solution when applied to rape, cabbages and apples at the right time.
CALCIUM DEMANDING CULTURES: apple, grapes, tomato, cucumber, melon, cabbages, autumn coleseed.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	9	-	6	2	-	10	-	-	-	-	-	-
m/v%	13,5	-	9	3	-	15	-	-	-	-	-	-
g/l	135	-	90	30	-	150	-	-	-	-	-	-
Chelating agent: EDDHSA												

Advantages of use:

- » The product in the intensive stem growth of rape longitudinal cracking of the stem can be reverted and reduced,
- » with early spring use the degree of spring frost, damage in rape can be reduced
- » the structure of the cell wall is strengthened, thanks to this plants become more resistant,
- » the formation of root hairs and nutrient absorption improves.

Directions for use

Plant culture	Dose		Directions for use
	ml/10l	l/ha	
Vegetables	300-500	3-5	before flowering, after flowering every 9 - 10 days during the entire growing season
Grapes, Fruits	300-500	3-5	from the end of flowering to coloring every 11 days



Applied independently or in one pass with plant protection works.



Suitable for drone use.



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.
 To be used only in justified cases. Do not exceed the recommended dosage.

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> TURBO POTASSIUM

Our preparation with the highest active ingredient content (total: 97%), is the "oasis" of plants, which contains 4% nitrogen, 36% potassium and 57% sulfur.

This special nutrient ratio results extraordinary efficiency. The FitoHorm Turbo Potassium liquid solution fertilizer is used quickly and efficiently through the foliage. Potassium is the guarantee of the quantity and quality of the crop.

Potassium regulates protein synthesis, the functioning of carbohydrates and enzymes, and also plays an important role in breathing and regulating water balance. It enhances the quality, coloring and sugar content of the fruits, and improves the plants' resistance to disease, cold and drought. It is an easily mobilized element, its absence appears on the lower

POTASSIUM DEMANDING CULTURES: corny plants, corn, potatoes, sugar beets, sunflowers, grapes, melons, berries, legumes, celery, beets.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	3	-	26	-	41	-	-	-	-	-	-	-
m/v%	4	-	36	-	57	-	-	-	-	-	-	-
g/l	40	-	360	-	570	-	-	-	-	-	-	-
Chelating agent: EDDHSA												

Advantages of use:

- » Increases metabolic processes,
- » helps seed filling, the accumulation of carbohydrates in the seeds
- » it improves the thousand grain weight, and the yield increases with it
- » increases the quality, coloring and sugar content of the crops
- » strongly improves the resistance to cold and drought.

Direction

Area of use:	Dose
Arable land	for foliar fertilization: 3-5 l/ha/occasion,
	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water)
Horticultural, Home garden	for nutrient solution: in a concentration of 0.5-1.0% (5-10 l/1000 l of water).



Treatments can be repeated 2-6 times during the growing season, depending on the degree of nutrient deficiency.



Suitable for drone use.



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand. In the case of foliar fertilization, the basic rules of spraying must also be observed.



> TURBO SULFUR

FitoHorm Turbo Sulfur increases the resistance, physiological performance and development of plants and increases the yield.

It helps the development of excellent food industry parameters and forage quality. Stimulates the amount of vegetable oils formed in the aroma channels and their species-specific content.

The proper means of real sulfur supplementation is through leaves.

In case of sulfur deficiency, protein synthesis is disturbed (protein content decreases), in addition to weak growth, the widening of the leaf blades remains inhibited (assimilation, growth inhibition), nitrogen utilization also decreases.

CULTURES DEMANDING SULFUR: rape, sugar beet, sunflower, peas, onion.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	15	-	-	-	46	-	-	-	-	-	-	-
m/v%	20	-	-	-	60	-	-	-	-	-	-	-
g/l	200	-	-	-	600	-	-	-	-	-	-	-
Chelating agent : EDDHSA												

Advantages of use:

- » It has an extra high absorbable sulfur content,
- » in addition to the quality of the crop, it also has a positive effect on the quantity,
- » increases the dry matter content of plants and moderates drought damage,,
- » increases protein and oil production.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 2-3 l/ha/occasion
Horticultural, Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)



Treatments can be repeated 2-6 times during the growing season, depending on the degree of nutrient deficiency.



Suitable for drone use.



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand. In the case of foliar fertilization, the basic rules of spraying must also be observed.



> TURBO MAGNESIUM

FitoHorm Turbo Magnesium is a product with a special effect and excellent uptake by our cultivated plants. All this is thanks to its exceptionally pure raw material and careful formulation. Magnesium, which is among its active ingredients, can be absorbed by plants with unique efficiency. The phosphorus content of FitoHorm Turbo Magnesium strengthens rooting and the formation of flower organs, thus the development of generative organs.

FitoHorm Turbo Magnesium makes plant metabolism and transport processes more efficient and faster. In grapes, it is a remedy for cluster peduncle paralysis. In the case of fruit and vegetable plants, it is important to apply before the full load period, thus avoiding periodic weakening of the plants.

CULTURES DEMANDING MAGNESIUM: rape, sunflower, potato, melon, tobacco, grapes, paprika, tomato, cucumber, cabbages.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	3	26	-	7,5	-	-	-	-	-	-	-	-
m/v%	4	35	-	10	-	-	-	-	-	-	-	-
g/l	40	350	-	100	-	-	-	-	-	-	-	-
Chelating agent : EDDHSA												

Advantages of use:

- » It increases the metabolism of the plant, thereby helping its optimal growth
- » the greening force (responsible for the deep green color in the flora),
- » strengthens rooting and the formation of flower organs, as well as the healthy development of the germ within the seed
- » The tank mixture has a concentration of 0.1-0.5% can also be used for water softening.

Direction for use

Area of use:	Dose
Arable land	or foliar fertilization: 2-3 l/ha/occasion, for soil fertilization: 5-10 l/ha/occasion.
Horticultural, Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for soil fertilization: 5-10 l/ha/occasion for nutrient solution: in a concentration of 0.1-0.5% (1-5 l /1000 l of water)



Suitable for drone use.



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand..

In the case of foliar fertilization, the basic rules of spraying must also be observed.

It is important that FitoHorm Turbo Magnesium is the first component when putting together the tank mixture, and then add the other components after mixing it!



> TURBO MANGANESE

Like magnesium, iron and some heavy metals, manganese participates as an enzyme activator in plants' metabolic processes.

It plays a fundamental role in protein synthesis, the citric acid cycle and photosynthesis. Strong drying of the soil can lead to dehydration of various manganese salts.

Dehydration reduces the solubility of compounds, so it can result in a relative manganese deficiency. In addition to the manganese content in the product, it also contains a significant amount of highly absorbable molybdenum, which favorably affects nitrogen metabolism processes.

CULTURES DEMANDING MANGANESE: corny plant, rape, soy, sugar beet.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	-	6,6	-	-	-	0,4
m/v%	-	-	-	-	-	-	-	8	-	-	-	0,5
g/l	-	-	-	-	-	-	-	80	-	-	-	50
Chelating agent : EDDHSA												

Advantages of use:

- » Its use improves flower and crop formation.
- » the microelements found in the product contribute to the incorporation of large amounts of nutrients
- » thus the treated plants grow healthier and faster,
- » strengthens the plant's photosynthesis and transport of assimilates

Direction for use

Area of use:	Dose
Arable land	for foliar fertilization: 3-5 l/ha/occasion (with 250-350 l/ha water volume), for soil fertilization: 4 l/ha/occasion.
Horticultural, Home Garden	for foliar fertilization: 1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l /1000 l of water)



Treatments can be repeated every 2-3 weeks during the breeding season



.Suitable for drone use



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.
To be used only in justified cases. Do not exceed the recommended dosage

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> TURBO NITROGEN

The product is the "energy drink" of our plants. Thanks to the urea formaldehyde contained in the product, a continuous supply of nitrogen is ensured for the plant.

After application, nitrogen absorption is guaranteed by the form of urea, which results in a gradual and uniform supply of nutrients over several weeks. Its effectiveness and effect stand out compared to solid fertilizers applied in dry weather in the spring..

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	24	-	-	2,3	5,3	-	-	-	0,008	-	-	-
m/v%	30	-	-	3	6,5	-	-	-	0,01	-	-	-
g/l	300	-	-	30	65	-	-	-	0,1	-	-	-
Chelating agent : EDDHSA												

Advantages of use:

- » Thanks to the urea-formaldehyde complex form there is no risk of leaf scorching,
- » continuously feeds the plant during its discovery,
- » thus does not cause chronic tissue elongation/thinning,
- » is a liquid nitrogen fertilizer that gives our plants a chance even in drought

Directions for use

Plant culture	Suggested quantity [l/ha]	Required amount of water[l/ha]	Way of use
Rape	10-15	100-250	4-6 leaf stage, between budding and flowering
Corny plants	10-15	100-250	From the beginning of bushiness to the appearance of the ear
Sunflower	10-15	100-250	From the 4-leaf stage to the star bud stage
Corn	10-15	100-250	4-6 leaf stage and after 15-20 days
Sugar beet	10-15	100-250	4-6 leaf state and 1 month later
Grape-Fruit	5-10	300-750	1-1 times: before flowering, after flowering and after harvest, before leaf fall



In addition, the treatments can be repeated 2-6 times according to the degree of nutrient deficiency.



Suitable for drone use.



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand..

To be used only in justified cases. Do not exceed the recommended dosage

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> TURBO COPPER

Plants absorb copper in ion or chelate form, in complex form. The replacement of copper can be done entirely through the plant leaves.

In the case of eared grains, copper deficiency may occur due to inhibited transport processes. In case of deficiency, the cell wall and transport beams develop abnormally, so the plants quickly fall over (harvest loss).

Thanks to the special and stable formulation in FitoHorm Turbo Copper, we have the possibility of very high copper replacement.

It is also particularly effective when mixed with UAN solutions.

COPPER DEMANDING CULTURES: corny plants, apple, plums, peaches, citrus fruits.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	15	-	-	-	8,6	-	-	-	6	-	-	-
m/v%	20	-	-	-	11,5	-	-	-	8	-	-	-
g/l	200	-	-	-	115	-	-	-	80	-	-	-
Chelating agent : EDDHSA												

Advantages of use:

- » Its use improves the plant's drought tolerance,
- » helps the formation of the bushy knot, stimulates the differentiation of the ear
- » it protects chlorophyll from premature breakdown, so it grows assimilation performance,
- » photosynthesis and metabolic processes improve.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 2-3 l/ha/occasion
Horticulture Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.05-0.25% (0.5-2.5 l/1000 l of water)



Treatments can be repeated 2-6 times during the growing season, depending on the degree of nutrient deficiency.



Suitable for drone use.



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.
To be used only in justified cases. Do not exceed the recommended dosage.

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> TURBO START

Over the past years, FitoHorm Kft. has set itself the goal of developing a foliar fertilizer that can not only be used through leaves, but can also be perfectly mixed with UAN solution for plants with a smaller green surface, can also be used through the soil, and helps the plants to have an explosive initial development.

When used in an early phenological state, as a foliar fertilizer, it has a special effect on rooting even when applied to a small leaf area.

We do not have any economic plant where the intensity of initial development does not decisively influence the subsequent success of cultivation.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	9	19	-	-	-	-	0,02	-	0,0025	0,25	0,014	0,001
m/v%	11	23	-	-	-	-	0,025	-	0,003	0,3	0,017	0,0014
g/l	110	230	-	-	-	-	0,25	-	0,03	3	0,17	0,014
Chelating agent : EDDHSA												

Advantages of use:

- » It increases the metabolism of the plant, and it helps optimal growth,
- » the greening force (responsible for the deep green color in the flora),
- » increases the activity of photosynthesis,
- » strengthens rooting and the formation of flower organs, as well as the healthy development of the germ within the seed.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 3-5 l/ha/occasion
Home garden	for foliar fertilization: 1-2 dl/10 l of water) for soil fertilization: 4 l/ha/occasion for nutrient solution: in a concentration of 0.1-0.5% (1-5 l /1000 l of water)



Treatments can be repeated every 2-3 weeks during the breeding season.



Suitable for drone use.



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.

To be used only in justified cases. Do not exceed the recommended dosage.

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> TURBO MAKRO

FitoHorm Turbo Makro is a liquid complex foliar fertilizer that is recommended for remedying development problems caused by extreme weather conditions and other stress. The macroelement composition (10-10-10 NPK) found in the leaf fertilizer restarts the slowed down or stopped metabolic processes by adding the special form of phosphorus, and starts the defense mechanism of the plants.

It helps the development of plants at every stage of development, improves the content and color of the crops, and helps the development of better-quality, tastier, juicier, easy-to-transport and long-lasting, well-storable crops.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	8	8	8	-	-	-	-	-	-	-	-	-
m/v%	10	10	10	-	-	-	-	-	-	-	-	-
g/l	100	100	100	-	-	-	-	-	-	-	-	-
Chelating agent : EDDHSA												

Advantages of use:

- » Thanks to the harmonic composition improves the quality and quantity parameters of the crop
- » initiates rooting,
- » fast absorption through foliage is guaranteed
- » increases the utilization of most plant protection agents.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 3-4 l/ha/occasion
Horticultural, Home garden	for foliar fertilization: 1-2 dl/10 l of water) for soil fertilization: 4 l/ha/occasion for nutrient solution: in a concentration of 0.1-0.5% (1-5 l /1000 l of water)



Treatments can be repeated every 2-3 weeks during the breeding season.



Suitable for drone use



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand

To be used only in justified cases.
Do not exceed the recommended dosage.
In the case of foliar fertilization, the basic rules of spraying must also be observed.



> FITOHORM 10 B

FitoHorm 10 B is a boron-containing fertilizer solution, with a chelating agent, which can be used as a foliar fertilizer and nutrient solution in all plant cultures to supply nutrients or to prevent and cure deficiency diseases.

Boron stimulates the generative processes, the growth and development of the pollen tube, increases the stability of the cell wall, and is therefore absolutely necessary for the life of plants. In its absence, fertilization is reduced and binding is hindered. Being an essential microelement, its presence is vital for all plant cultures, especially for grape and fruit, oil plants and some vegetables.

Directions for use

Area of use	Dose
Arable land	Dose for foliar fertilization: 5 l/ha/occasion
Horticultural Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) or nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	-	-	-	-	2,2	-
m/v%	-	-	-	-	-	-	-	-	-	-	2,5	-
g/l	-	-	-	-	-	-	-	-	-	-	25	-
Chelating agent : EDDHSA												

> FITOHORM 14 N

In its absence, the leaves are pale, turn yellow, and remain small. The yellowing of the leaves starts from the top of the leaves, the shoots become stiff and close to the stem.

Photosynthesis is inhibited, growth is retarded, the taste intervals are shortened, the development of the flower parts is delayed, and early fruit drop occurs. Frost tolerance of plants decreases. Since root formation is also inhibited, nutrient uptake is also hindered.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 5-10 l/ha/occasion
Horticultural Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	27	-	-	-	-	-	-	-	-	-	-	-
m/v%	32	-	-	-	-	-	-	-	-	-	-	-
g/l	320	-	-	-	-	-	-	-	-	-	-	-
Chelating agent : EDDHSA												

> FITOHORM 30 P

It is a mobile element that is well mobilized in the plant and is directed to the fruit after fertilization following flowering. In its absence, the development of the root system is limited (reduced nutrient uptake), less branched, weak shoots develop, and in severe cases the plant may become bald.

The undersides of the leaves are dark green, blue-green, and later red. Flowering is weak, binding is poor, and the fruit can often be kicked off. **FitoHorm 30 P**, which is a solution fertilizer that can be applied through the foliage together with plant protection, provides a suitable solution for ensuring the phosphorus supply of plants.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 5 l/ha/occasion
Horticultural Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	6,4	16,4	-	-	-	-	-	-	-	-	-	-
m/v%	7	18	-	-	-	-	-	-	-	-	-	-
g/l	70	180	-	-	-	-	-	-	-	-	-	-
Chelating agent : EDDHSA												

> FITOHORM 24 Mg

The magnesium content of our soils is generally satisfactory, but its deficiency still occurs. This is mostly due to the preponderance of so-called antagonistic nutrients (potassium, copper, manganese, ammonium ions) in the soil.

Its deficiency first appears on the older leaves, the leaves lighten and then turn yellow, and chlorophyll remains only in the leaf veins. Damaged leaves drop early, causing fruit trees to go bald

Directions for use

Area of use	Dózis
Arable land	Dose for foliar fertilization: 5 l/ha/occasion
Horticultural Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	5,28	9	-	-	-	-	-	-	-
m/v%	-	-	-	6,6	10,6	-	-	-	-	-	-	-
g/l	-	-	-	66	106	-	-	-	-	-	-	-
Chelating agent : EDDHSA												

> FITOHORM 39 K

NPK 3-6-9 chlorine-free fertilizer solution with chelating agent, which can be used as a foliar fertilizer and nutrient solution in all plant cultures to supply nutrients or to prevent and cure deficiency diseases. It enhances the quality, coloring and sugar content of the crops, and improves the plants' resistance to disease, cold and drought.

It is an easily mobilized element, its absence appears on the lower leaves. The most common deficiency symptom is that there is a disturbance in the turgor regulation of the plant. The growth of the plant is inhibited (rosette plant), and stunted foliage develops. Necrosis spreading inwards from the edge of the leaf, light brown coloration along the leaf tip and edge is common.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 5 l/ha/occasion
Horticultural Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	2,5	5	7,5	-	-	-	-	-	-	-	-	-
m/v%	3	6	9	-	-	-	-	-	-	-	-	-
g/l	30	60	90	-	-	-	-	-	-	-	-	-
Chelating agent : EDDHSA												

> FITOHORM 40 Ca

Among the nutrients that determine fruit quality, one of the most important is calcium, which has a known, general effect of slowing down and delaying fruit ripening processes. Fruits with a good supply of calcium have a lower respiration intensity, usually have a harder flesh, so they can be stored better and are less susceptible to diseases of physiological origin.

The ability to absorb, transport and integrate calcium within the plant is very special, which makes it difficult for the fruit to reach the appropriate amount during the growing season. Continuous calcium supply through the foliage is essential.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 5 l/ha/occasion
Horticultural Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	8,57	-	-	-	-	15	-	-	-	-	-	-
m/v%	12	-	-	-	-	21	-	-	-	-	-	-
g/l	120	-	-	-	-	210	-	-	-	-	-	-
Chelating agent: EDDHSA												

> FITOHORM 40 Ca NITROGEN FREE

Among the nutrients that determine fruit quality, one of the most important is calcium, which has a known, general effect of slowing down and delaying fruit ripening processes. Fruits with a good supply of calcium have a lower respiration intensity, usually have a harder flesh, so they can be stored better and are less susceptible to diseases of physiological origin.

The ability to absorb, transport and integrate calcium within the plant is very special, which makes it difficult for the fruit to reach the appropriate amount during the growing season. The danger of low calcium content cannot therefore be explained only by the low level of absorbable calcium content in the soil. Continuous calcium supply through the foliage is indispensable. Using it before the fruit ripens helps to achieve perfect coloring and has a positive effect on the shelf life.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 5 l/ha/occasion
Horticultural Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	8,57	-	-	-	-	15	-	-	-	-	-	-
m/v%	12	-	-	-	-	21	-	-	-	-	-	-
g/l	120	-	-	-	-	210	-	-	-	-	-	-
Chelating agent : EDDHSA												

> FITOHORM 54 Mn

Manganese uptake by plants is inhibited on alkaline soil. In most cases, long-lasting, persistent drought, soil compaction, flooding and the period after liming also cause manganese deficiency.

Maize plants are particularly sensitive to the stability of manganese supply. In their case, an important criterion is that the culture suffering from manganese deficiency becomes particularly sensitive to the cold.

Its deficiency can be detected mainly in wheat, barley and oats. The most obvious deficiency symptom is the marbling of the leaves (lightening between the leaf veins), dry spots. Manganese is also a yield-determining factor for root and tuberous plants (sugar beets, potatoes, root vegetables) and legumes (peas, beans, soys, lentils), so manganese fertilization brings positive quality results for these crops.

Directions for use

Area of use	Dózis
Arable land	for foliar fertilization: 3-5 l/ha/occasion
Horticultural Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	-	3,2	-	-	-	-
m/v%	-	-	-	-	-	-	-	4	-	-	-	-
g/l	-	-	-	-	-	-	-	40	-	-	-	-
Chelating agent : EDDHSA												

> FITOHORM 55 Fe

A particularly effective formula for the treatment and prevention of iron deficiency. Iron plays an important role in the synthesis of chlorophyll and protein, it is an enzyme creator, it mainly regulates respiration and metabolism. It is difficult to move in the plant, it is difficult to mobilize. Its deficiency occurs most often in grape and fruit cultures.

A relative lack of iron can occur on compacted, airless, alkaline or cool soil, first the veins, later the leaves turn white, the leaves turn bright yellow (yellowing of the leaves). The symptom is more pronounced in cool, wet weather. Its uptake is inhibited by calcium ions

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 5 l/ha/occasion
Horticultural Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	-	3,2	-	-	-	-
m/v%	-	-	-	-	-	-	-	4	-	-	-	-
g/l	-	-	-	-	-	-	-	40	-	-	-	-
Chelating agent : EDDHSA												

> FITOHORM 63 Cu

A **FitoHorm 63 Cu** copper solution is a liquid, easy-to-handle preparation. Its chelated copper content ensures the effective absorption of copper through the leaves and its incorporation into the plant, enabling the prevention of nutrient deficiency and its quick and effective remedy.

A lack of copper causes the so-called "whiteness of the ears" of the ears (oats, barley, wheat), when the leaves and, in more severe cases, the ears also turn white and dry up. All of this can be attributed to obstructed water transport caused by insufficient copper supply. In the absence of copper, plant tissues weaken, which increases the risk of tipping over. Its absorption from limed and nitrogen-rich soils is particularly difficult.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 5 l/ha/occasion
Horticultural Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	-	-	3,2	-	-	-
m/v%	-	-	-	-	-	-	-	-	4	-	-	-
g/l	-	-	-	-	-	-	-	-	40	-	-	-
Chelating agent : EDDHSA												

> FITOHORM 65 Zn

Today, the soils of our country are increasingly deficient in zinc. The following crops are most sensitive to its deficiency: corn, wheat, apples, cherries, sour cherries, peaches, plums, roses, berries, peppers. In case of zinc deficiency, it is parallel to the vein of the leaf chlorotic striations appear, the growth of the plant is retarded, the

taste spaces are shortened (dwarfism in fruit crops), the development of the flower parts becomes delayed, the grains (corn) and fruits are deformed. The growth and development of the root system is also retarded, as a result, the plant is less anchored in the soil and the absorption of nutrients through the roots is also hindered.

Directions for use

Area of use	Dose
Arable land	for foliar fertilization: 3-5 l/ha/occasion
Horticultural Home garden	for foliar fertilization: in a concentration of 1-2% (1-2 dl/10 l of water) for nutrient solution: in a concentration of 0.1-0.5% (1-5 l/1000 l of water)

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	-	-	-	3,2	-	-
m/v%	-	-	-	-	-	-	-	-	-	4	-	-
g/l	-	-	-	-	-	-	-	-	-	40	-	-
Chelating agent : EDDHSA												

> FITOFERR T3

Iron-containing fertilizer solution with chelating agent, which can be used to prevent and cure

iron deficiency in arable and horticultural crops, on alkaline, calcareous soils, primarily in the form of soil treatment.

Directions for use

Area of use	Dose
Grapes, Fruits	at installation 10-15 ml / vine in growing grapes: 50-120 ml / vine
Berries	25-100 ml / vine
Ornamentals	ornamental shrubs: 5-25 ml / stem ornamental trees: 120-250 ml / stem rose: 10-25 ml / stem
Foil cultivation	for nutrient solution: 0.5-1 l / m3 of water

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	-	-	-	-	-	-	2,4	-	-	-	-	-
m/v%	-	-	-	-	-	-	3	-	-	-	-	-
g/l	-	-	-	-	-	-	30	-	-	-	-	-
Chelating agent : EDDHSA												

> GERANIUM

When the summer arrives, the nutritional needs of plants change, especially those that are placed on the balcony or outdoors. The warmer the weather, the faster the plants develop, so they need more water and nutrients to flourish and carry out their life processes.

The most important nutrients are nitrogen, phosphorus and potassium. Plants need these macronutrients in large quantities.

Small amounts of nutrients in nutrient solutions are also essential for development and flowering.

Composition												
	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	5,2	4,3	5,2	-	-	-	-	-	-	-	-	-
m/v%	6	5	6	-	-	-	-	-	-	-	-	-
g/l	60	50	60	-	-	-	-	-	-	-	-	-
Chelating agent : EDDHSA												

Directions for use

Area of use

Geranium, petunia and other flowering balcony and indoor plants.

Dose

for leaf treatment:

Water weekly using 1 cap of nutrient solution for 2 liters of water.



It can be used continuously every 3-4 weeks from April to August.

Applied independently or in one pass with plant protection works.



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.

To be used only in justified cases. Do not exceed the recommended dosage.

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> LEAF ORNAMENTAL PLANT

A product specially developed for feeding decorative plants with their leaves. It contains the most important nutrients necessary for the balanced growth of our plants.

With its use, the sheet of the leaf spreads out nicely and becomes shiny. **FitoHorm Leaf Ornamental Plant** can also be used excellently for herbs, the use of which results in rapid regeneration.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	6,9	3,4	4,3	-	-	-	-	-	-	-	-	-
m/v%	8	4	5	-	-	-	-	-	-	-	-	-
g/l	80	40	50	-	-	-	-	-	-	-	-	-
Chelating agent : EDDHSA												

Directions for use

Area of use

Balcony and leaf ornamental plants

Dose

for leaf treatment:

Water weekly using 1 cap of nutrient solution for 2 liters of water.

For soil treatment:

before planting, we use it in the amount of 0.1 liter / 100 m², introduced into the soil.



Water weekly from April to September, every 3 weeks in winter.

As a result of the treatments, abundant, balanced growth is achieved.

It can prevent baldness and leaf fall, which often occurs in indoor plants from the bottom up.



> OLEANDER

Leander is a Mediterranean, sun-loving plant. As spring progresses, the warmer the weather, the more sunlight it needs and therefore more frequent watering. Continuous flowering is only guaranteed if adequate nutrient levels are reached. **FitoHorm Leander** contains nutrients especially important for the plant.

With regular use, leanders bloom profusely and develop healthily throughout the summer. Leander is water-demanding, as a general rule, from May to autumn, it should receive water regularly, at least daily, and a nutrient solution once a week.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	6,9	3,4	4,3	-	-	-	-	-	-	-	-	-
m/v%	8	4	5	-	-	-	-	-	-	-	-	-
g/l	80	40	50	-	-	-	-	-	-	-	-	-
Chelating agent : EDDHSA												

Directions for use

Area of use

Oleanders and all Mediterranean, tropical and subtropical ornamental plants

Dose

for leaf treatment::

Water weekly using 1 cap of nutrient solution for 2 liters of water..

For soil treatment:

before planting, we use it in the amount of 0.1 liter / 100 m², introduced into the soil.



Applied independently or in one pass with plant protection works.



Water weekly from April to September, every 3 weeks in winter.

As a result of the treatments, abundant, balanced growth is achieved.

In the case of foliar fertilization, the basic rules of spraying must also be observed



> EVERGREEN

It is recommended for the supply of nutrients to thuyas, pines and other plants grown in the garden or on the balcony that decorate with their green leaves, as well as to refresh and feed lawns. Thanks to its high iron and magnesium content, it encourages the formation of chlorophyll in plants and turns the leaves green with a direct effect.

Special nutrient solution! By using it regularly, the majority of fungal diseases affecting evergreens can be eliminated. It helps to reduce the harmful effects of summer heat and intense radiation. It lends the evergreens an extremely bright, variety-specific color, and the whole thing enables strong vitality during the breeding season.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	16	-	-	2,4	8,8	-	0,4	-	-	-	-	-
m/v%	20	-	-	3	11	-	0,5	-	-	-	-	-
g/l	200	-	-	30	110	-	5	-	-	-	-	-
Chelating agent : EDDHSA												

Directions for use

Area of use

Thuyas, pines and other garden or indoor plants that decorate with their green leaves.

Dose

for leaf treatment:
sprayed on foliage at a concentration of 1-2% (1-2 dl/10 l water)

For soil fertilization:
on the soil, using 1 cap of nutrient solution for 2 liters of water (1 dl/10 l of water).



Use it continuously every 3-4 weeks from April to August.



It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.

To be used only in justified cases. Do not exceed the recommended dosage.

> FLOWER FAVORITE

It usually contains balanced amounts of nutrients suitable for meeting the life-sustaining needs of overwintered plants.

With its use, the plants can be kept in good health, therefore, when the wintered plants are put out again, they start to develop explosively.

It is a perfect solution for those who have a mixture of flowering and leaf ornamental plants and do not want to use multiple product variations. In this way, they can benefit all plants with one product.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	5,2	5,2	5,2	-	-	-	-	-	-	-	-	-
m/v%	6	6	6	-	-	-	-	-	-	-	-	-
g/l	60	60	60	-	-	-	-	-	-	-	-	-
Chelating agent : EDDHSA												

Directions for use

Area of use

Ornamental plants for gardens, balconies and pots

Dose

for leaf treatment::

Water weekly using 1 cap of nutrient solution for 2 liters of water.



Water weekly from April to September, every 3 weeks in winter.



As a result of the treatments, abundant, balanced growth is achieved.

Applied independently or in one pass with plant protection works.

In the case of foliar fertilization, the basic rules of spraying must also be observed.



> KOMPLEX PLUS

We recommend it for nutrient supplementation of garden, balcony and pot ornamental plants, as well as vegetable plants. FitoHorm Komplex Plus, as its name suggests, is a complex, solid irrigation fertilizer that contains large quantities of the most important macro- and microelements. Due to its composition, it can be used for any houseplant, garden or flowering ornamental plant, both through foliage and soil.

It dissolves extremely quickly, and thanks to its high nutrient content, it is a very effective and economical preparation, which, in addition to preventing and curing nutrient deficiencies, also has a positive effect on flowering and improving the quality of the crop.

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	14	7	21	-	22	-	0,165	0,032	0,017	0,02	0,01	0,002
Chelating agent : EDDHSA												

Directions for use

Area of use	Dose
Ornamental plants	As a foliar fertilizer: sprayed on leaves in a concentration of 0.2-0.5%. Applied to the soil as a nutrient solution: 10 g / 10 l of water (1 measuring spoon)
Geranium	As a foliar fertilizer: sprayed on leaves in a concentration of 0.2-0.5%. Applied to the soil as a nutrient solution: 20 g / 10 l of water (2 measuring spoons)
Vegetables	As a foliar fertilizer: sprayed on leaves in a concentration of 0.2-0.5%. Applied to the soil as a nutrient solution: 10-20 g / 10 l of water (1-2 measuring spoons)



1 kg of FitoHorm Complex Plus is enough for 1000 liters of water!



The nutrient solution is carried out weekly and followed by wash-in irrigation.
To be used only in justified cases. Do not exceed the recommended dosage.



FitoHorm

> EVERGREEN LAWN

Fertilizer for evergreens and a beautiful lawn, with a moss-killing effect.

It is recommended for the supply of nutrients to thuyas, pines and other plants grown in the garden or on the balcony that decorate with their green leaves, as well as to refresh and feed lawns. The

creation of a coherent, attractive, uniformly colored and constantly renewing stand is only possible with evenly spread, dissolved Fitohorm fertilizer. Its components ensure the even growth of plants, stimulate the formation of green color bodies, thus the development of the color characteristic of the grass species

Composition

	N	P ₂ O ₅	K ₂ O	MgO	SO ₃	CaO	Fe	Mn	Cu	Zn	B	Mo
m/m%	12	5	5	2	38	-	3,5	-	-	-	-	-
Chelating agent : EDDHSA												

Directions for use

Area of use	Dose
Parks, grass sports fields, home garden lawns	For replenishing nutrients and killing moss, treating yellowed lawns: applied evenly at a dose of 3-4 kg/100 m ² . Application should ideally be followed by washing-in irrigation.
Thuyas, pines and other evergreens	for nutrient solution: 50g / tree



It can be used continuously every 3-4 weeks from April to August.



Applied independently or in one pass with plant protection works.

It can also be used together with plant protection agents, but we recommend checking the compatibility beforehand.

To be used only in justified cases. Do not exceed the recommended dosage.

In the case of foliar fertilization, the basic rules of spraying must also be observed.



NOTES

[illegible]



OUR CONSULTANTS



NORTH-DUNÁNTÚL

Győr-Moson-Sopron, Komárom-Esztergom,
Pest megye dunántúli része

Kristóf Milán

+36 30/525-1434
milan.kristof@fitohorm.hu



WEST-DUNÁNTÚL

Vas, Veszprém, Zala megye

Csicsely Róbert

+36 30/656-2166
robert.csicsely@fitohorm.hu



SOUTH-DUNÁNTÚL

Somogy, Baranya, Tolna, Fejér megye

Keresztes Zoltán

+36 30/635-3275
zoltan.keresztes@fitohorm.hu



RETAIL

Braun Gábor

+36 30/637-4255



NORTH-HUNGARY

Pest Dunától keletre fekvő része, Nógrád,
Heves, Borsod-Abaúj-Zemplén megye

Téglás-Kovács Zoltán

+36 30/338-4835
zoltan.k.teglas@fitohorm.hu



EAST-HUNGARY

Jász-Nagykun-Szolnok, Hajdú-Bihar megye

Szutor Imre

+36 30/647-8923
imre.szutor@fitohorm.hu



EAST-HUNGARY

Szabolcs-Szatmár-Bereg megye

Tóth Tamás

+36 30/944-9157
tamas.toth@fitohorm.hu



SOUTH-HUNGARY

Bács-Kiskun, Csongrád, Békés megye

Gyói Gábor

+36 30/565-0479
gabor.gyoi@fitohorm.hu



FitoHorm Kft

H-6500 Baja, Iparos u. 12
Tel.: +36 79/321-244
E-mail: iroda@fitohorm.hu

FitoHorm[®]

www.facebook.com/fitohorm 