

Product Catalog
Ürün Katalođu



ferment.com.tr



**Sürdürülebilir tarım ve
yüksek verim için
yeni nesil
*sun gübre***



Welcome



**FERMENT
TARIM**



About us

Ferment was established to operate in the agricultural and livestock industries, offering raw materials, semi-finished products, fertilizers, seeds, pesticides, agricultural engineering, design, and consulting services.

To this end, it develops solutions to transition low-productivity, high-risk agricultural and livestock industries to high productivity and low risk.

As Ferment Tarım, we play an active role in the transition from conventional plant nutrition to the next-generation approach with our plant nutrition fertilizers.

Our products, with their high nutritional content and balancing properties suitable for use on all grains, fruits, vegetables, and plants, are ready to serve farmers in our country and around the world.

Our mission

Ferment Tarım is committed to developing and producing non-synthetic fertilizer solutions for efficient soil use and food production.

We conduct R&D studies to relieve our soils, which have been strained by intensive fertilizer use, and to produce more productive and healthy agricultural products. Through these efforts, we aim to help our farmers fully reap the rewards of their labor.

Our Vision

Ferment Tarım's vision is to provide a single solution to all our farmers' productivity problems, eliminating the need for additional fertilizer solutions for their crops.

We aim to create solutions that eliminate costly, ineffective fertilization products and techniques, and provide our farmers with access to the best and most effective fertilizer solutions under one roof.

As Ferment Tarım, we aim to be one of the top 10 fertilizer producers in Turkey by 2030 and one of the top 100 fertilizer producers in the world by 2040.



Strong Root, Powerful Flower



Guaranteed Content	: WW
Total Nitrogen (N)	: % 5
Urea Nitrogen (NH ₂ -N)	: % 5
Water-Soluble Phosphorus Pentoxide (P ₂ O ₅)	: % 20
Water-Soluble Boron (B)	: % 0,05
Water-Soluble Copper (Cu)	: % 0,02
Water-Soluble Iron (Fe)	: % 0,2
Water-Soluble Manganese (Mn)	: % 0,5
Water-Soluble Molybdenum (Mo)	: % 0,1
Water-Soluble Zinc (Zn)	: % 3

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
Greenhouse Plants	1 - 1,5 L/da	200 - 250cc/100L water	Immediately after planting seedlings and if flowering is weak
Cereals	1 - 1,5 L/da	200cc/da	At the beginning of tillering
Industrial Plants	3 - 4 L/da	200cc/da	pre-flower
Open Field Vegetables	3 - 4 L/da	200cc/da	Immediately after planting seedlings and if flowering is weak
Fruit Trees	Depending on the tree's age, 50-200cc per tree head	250cc/100L water	pre-flower
Bananas	3 - 4 L/da	200 - 250cc/100L water	Immediately after reconstruction and before branch birth
Vineyards	3 - 4 L/da	200 - 250cc/100L water	pre-flower
Olives	Depending on the tree's age, 50-200cc per tree head	200 - 250cc/100L water	Before and after flowering
Citrus	Depending on the tree's age, 50-200cc per tree head	200 - 250cc/100L water	pre-flower



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Extra



Extra, notable for its high phosphorus content and containing many important micronutrients (Boron, Copper, Iron, Manganese, Molybdenum, and Zinc), is a formulation specifically focused on the flowering and root development stages of plants.

Indications: High Phosphorus and Rich Micronutrient Combination. This liquid fertilizer is designed to promote rooting, enhance flowering, and fruit set, particularly in the early developmental stages of the plant. The micronutrients it contains support overall plant health, photosynthetic efficiency, and stress tolerance.

Phosphorus Pentoxide (P₂O₅) (20%):

Importance: It is the fundamental building block of ATP, the plant's "energy currency." It is vital for root development, flowering, seed, and fruit formation. It plays a critical role in basic metabolic processes such as photosynthesis and respiration.

Indications: Used especially during the initial growth stages after planting/sowing to accelerate root development, promote flowering, reduce flower drop, and support fruit/seed formation. It is very effective in situations where there is phosphorus deficiency in the soil or where phosphorus uptake becomes difficult in cold/wet soil conditions.

Urea Nitrogen (NH₂-N) (5%):

Importance: Promotes rapid vegetative growth. The urea form is quickly absorbed and utilized by the plant when applied via the leaf.

Indication: Formulated to balance the flowering and root development support provided by phosphorus with the overall green growth of the plant.

Boron (B) (0.05%):

Importance: Critical for pollen germination, pollen tube development, and fruit set. It is involved in calcium uptake and sugar transport.

Indication: Used during flowering and fruit set to increase fertilization and fruit set.

Copper (Cu) (0.05%):

Importance: Found in the structure of enzymes involved in photosynthesis and respiration. Effective in increasing disease resistance.

Indication: Supports chlorophyll production and general metabolic functions of the plant.

Iron (Fe) (0.2%):

Importance: An essential element for chlorophyll synthesis; its deficiency results in yellowing of leaves (chlorosis). It plays a role in photosynthesis and enzyme activity.

Indication: Used when iron uptake becomes difficult, especially in high pH (alkaline) soils, or when iron deficiency chlorosis occurs.

Manganese (Mn) (0.5%):

Importance: An activator of many enzymes involved in photosynthesis, respiration, and nitrogen metabolism.

Indication: Used primarily to support plant energy production and overall metabolism.

Molybdenum (Mo) (0.1%):

Importance: Plays a critical role in nitrogen metabolism and the conversion of nitrate into usable forms within the plant. It supports nitrogen fixation in legumes.

Indication: Used to increase the plant's nitrogen utilization efficiency and prevent nitrogen deficiency symptoms.

Zinc (Zn) (3%):

Importance: Necessary for the synthesis of auxin, the growth-regulating hormone. It affects protein synthesis, carbohydrate metabolism, and cold tolerance.

Indication: An essential microelement for healthy plant growth and development. It is particularly effective in treating problems such as stunted growth and small leaves caused by zinc deficiency.

Indications by Region and Plant Type in Turkey:

This fertilizer can be used throughout Türkiye, especially during periods when root development and flowering are critical, or in cases of general micronutrient deficiencies.

All Regions (Especially in the Early Development and Flowering Period):

Plants: All seedlings, newly planted plants, seedling vegetables (tomatoes, peppers, eggplants, cucumbers), cereals (wheat, barley) during the tillering period, legumes (beans, chickpeas, lentils) before flowering, and fruit trees (apples, cherries, peaches, citrus, olives, hazelnuts) before and after flowering.

Why: Its high phosphorus content reduces shocking during seedling planting and promotes rapid rooting. It contributes to increased yields by encouraging flowering and fruit set. Its comprehensive micronutrient content supports the overall health of the plant and prevents hidden nutrient deficiencies.

Southeastern Anatolia Region (Cotton, Pistachio, Grape):

Plants: Cotton (pre-flowering and pre-pod formation), pistachio (during flowering and fruit set), grapes.

Why: In cotton, pre-pod formation phosphorus and micronutrient supplementation increases yield. In pistachio, boron and zinc enhance fruit set by improving flowering and fertilization.

Application Method and Timing:

This fertilizer should be applied particularly during the initial plant development, rooting, tillering, pre-flowering, and flowering stages. It can be applied via foliar application or via soil application with drip irrigation. Dosages and timing should be adjusted according to the plant type, growth stage, and soil/leaf analysis results.

Ferment EXTRA provides comprehensive nutritional support during your plants' most critical and energy-demanding periods, helping them get off to a healthy start and achieve their high yield potential.

Flightless Nitrogen



Made with NFT Technology



Guaranteed Content	: WW
Total Nitrogen (N)	: % 25
Ammonium Nitrogen (NH₄-N)	: % 6,5
Nitrate Nitrogen (NO₃-N)	: % 6,5
Urea Nitrogen (NH₂-N)	: % 12

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
Fruit Trees and Citrus Fruits	2 - 4 L/da	200 - 400cc/100L water	200 - 400cc/100L water
Greenhouse Plants	2 - 4 L/da	200 - 400cc/100L water	From planting seedlings until the end of the season, during fruit set and fruit development periods
Open Field Vegetables	2 - 4 L/da	200 - 400cc/100L water	From planting seedlings until the end of the season, during fruit set and fruit development periods
Field Crops		200 - 400cc/da	In every period from the emergence of plants
Cut Flowers	2 - 4 L/da	200 - 400cc/100L water	It is applied as needed to promote plant growth.



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NFT is an excellent liquid nitrogen source featuring specially developed Nitrogen Fixation Technology (NFT TECHNOLOGY).

NFT stands out with its high and balanced nitrogen content. Its combination of different nitrogen forms (nitrate, ammonium, and urea), low pH, and biostimulants provide the plant with both rapid and continuous nitrogen supply.

NFT Indications: Balanced and High Nitrogen Formulation, Low pH. NFT is a product that aims to maximize the plant's rapid and vigorous vegetative (leaf) development, overall growth, and foliage formation. The combination of different nitrogen forms allows the plant to obtain the nitrogen it needs at different rates and under different conditions.

Total Nitrogen (25%): A fundamental element of plant growth, it is vital for the synthesis of chlorophyll, proteins, enzymes, and vitamins. It directly affects the plant's green color and stem and leaf development.

Ammonium Nitrogen (NH₄-N) (6.5%): This form of nitrogen is slowly taken up by the plant from the soil and tends to bind to the soil. It provides a more stable and long-lasting nitrogen source. It is better absorbed by the plant in cold and moist soils.

Nitrate Nitrogen (NO₃-N) (6.5%): This is the form of nitrogen most quickly and easily taken up by the plant. It is mobile in the soil and provides immediate effects on the plant. It is effective in rapid plant growth spurts.

Urea Nitrogen (NH₂-N) (12%): This form has a high nitrogen concentration that can be easily absorbed from both the leaves and the soil. It is gradually converted into other nitrogen forms and utilized by the plant. It is quickly absorbed in foliar applications and promotes plant growth.

Synergistic Effect: These three different nitrogen forms provide both a quick start and long-term, balanced growth. They adapt to the plant's changing nitrogen needs at different growth stages and ensure consistent nitrogen uptake under different soil conditions (temperature, humidity).

Indications by Regions and Plants in Turkey:

This high-nitrogen liquid fertilizer is widely used in all regions of Türkiye when the plant's vegetative development, yield potential, and overall vitality are targeted. It is particularly effective in situations where the soil is nitrogen-poor or when the plant requires high nitrogen during periods of rapid growth.

All Regions (General Growth and Development):

Plants: All field crops (wheat, barley, corn, sunflower, cotton), vegetables (tomato, pepper, eggplant, cucumber, cabbage, lettuce), fruit trees (citrus, apple, cherry, peach, olive, hazelnut), tea, lawns.

Why: Establishing a strong and healthy vegetative structure from the early growth stages is critical for a plant to achieve high yield potential. This product increases the plant's green structure and photosynthetic capacity.

Application Method and Timing:

This fertilizer should be applied when the plant's vegetative growth is most intense. It is generally preferred in the early growth stages, before or after tillering (cereals), after seedling planting, and until fruit set. It can be used by foliar application or soil application with drip irrigation. Dosages and timing should be adjusted based on plant type, growth stage, soil analysis, and climatic conditions.

Indication: Adaptation to Weather Conditions and Continuous Growth. The presence of different nitrogen forms, such as Nitrate Nitrogen (fast-acting), Ammonium Nitrogen (medium-term), and Urea Nitrogen (long-term/foliar-acting), ensures continuous and uninterrupted nitrogen uptake by the plant, even under varying soil temperatures and moisture conditions. For example, in cold soils, nitrate uptake may be slower, while the ammonium form may be more accessible; in hot and dry conditions, foliar uptake of the urea form may become critical. There's a final and important indication for (high and balanced nitrogen formulation). This is particularly important for the plant's adaptation to environmental conditions and overall productivity.

Indication: This product enhances plant adaptability and prevents growth retardation in regions of Türkiye experiencing changing climate conditions (early spring cold, summer drought, etc.). It helps plants maintain consistent vegetative growth with minimal impact from seasonal fluctuations. This is particularly important for agricultural areas with variable weather conditions in the Marmara, Central Anatolia, and Black Sea regions. It allows plants to reach their optimum growth potential without experiencing nutritional stress.

Plants That Are Not Affected by Stress



Guaranteed Content	: WW
Organic Matter	: %25
Total Nitrogen (N)	: % 8
Organic Nitrogen	: % 1
Urea Nitrogen (NH ₂ -N)	: % 7
Free Amino Acids	: % 3
Maximum Chlorine (Cl)	: % 0,2
pH Range	: 4,5-6,5

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
Greenhouse Vegetables	1 - 2L/da	250cc/100L water	Immediately after planting seedlings, during flowering and fruit development, and under stress conditions.
Pome Fruit Trees	Depending on the tree's age, 50-200cc/tree head	250cc/da	When petals fall before flowering, during fruit development, and under stress conditions
Pome Fruit Trees	Depending on the tree's age, 50-200cc/tree head	250cc/da	At the beginning of vegetative growth, after petals fall, during fruit development and under stress conditions
Banana	1 - 2 L/da	250cc/100L water	Immediately after construction and before branch birth, during fruit development and under stress conditions
Vineyard	1 - 2 L/da	250cc/100L water	At the beginning of leaf formation, during cluster formation, pre-flowering, post-flowering fruit development periods and under stress conditions
Olive	Depending on the tree's age, 50-200cc/tree head	250cc/100L water	Pre-flower and post-flower fruit development periods and under stress conditions.
Citrus	Depending on the tree's age, 50-200cc/tree head	250cc/100L water	Pre-flower and post-flower fruit development periods and stress conditions
Grains		200cc/da	At the beginning of tillering
Open Field Vegetables	1 - 2 L/da	200cc/100L water	Immediately after planting seedlings, during flowering and fruit development, and under stress conditions.
Beet	1 - 2 L/da	200cc/da	25-30 days after seeds germinate and under stress conditions
Sunflower		200cc/da	25-30 days after seed germination and under stress conditions.
Tobacco		200cc/da	10-20 days after transplanting seedlings to the field and under stress conditions
Cotton		200cc/da	10-20 days after the plants emerge from the soil surface, during the first flowering phase and the comb formation phase.



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Feramino



Feramino, supports plant growth and development even under challenging conditions thanks to its high organic matter and nitrogen content, as well as its directly usable free amino acids and organic biostimulants.

This liquid fertilizer, a combination of organic matter, nitrogen, and amino acids, is a comprehensive formulation that aims to improve the physical and biological structure of the soil by increasing both plant nutrition and overall stress resistance.

Organic Matter (25%):

Importance: Increases soil water-holding capacity, facilitates easier plant uptake of nutrients, improves soil structure (aeration and root development), and promotes soil microorganism activity. Increases soil fertility in the long term.

Indication: Used particularly in soils poor in organic matter, prone to erosion, or compacted. Ideal for farmers seeking to improve the overall health and sustainability of soils. Increasing soil water-holding capacity is critical in arid and semiarid regions.

Total Nitrogen (8%) (Organic Nitrogen and Urea Nitrogen):

Importance: Promotes rapid plant vegetative development, leaf and stem growth. While organic nitrogen is gradually released to the plant, urea nitrogen has a rapid effect. This combination provides a balanced nitrogen supply.

Indication: Used to support the plant in establishing strong green parts during the initial growth and vegetative development stages.

Free Amino Acids (3%):

Importance: Plants require amino acids for protein synthesis. They can synthesize these amino acids themselves, but consuming them in ready-made form allows the plant to conserve energy. It accelerates the plant's defense mechanisms and recovery processes under stress conditions (drought, heat, salinity, disease). It increases photosynthesis and facilitates nutrient uptake (chelating effect).

Indication: Used to accelerate plant recovery and increase plant resistance under all types of stress (planting shock, post-spray stress, adverse climatic conditions). It also provides additional energy support for overall growth and increased yield.

Maximum Chlorine (Cl) (0.2%): Its low chlorine content means it can be used safely, especially on chlorine-sensitive plants (e.g., potatoes, tobacco, some fruit trees).

Indications by Region and Plant in Turkey:

This product has a wide range of applications across all regions of Türkiye, particularly when it aims to improve soil health, strengthen plants against stress, and ensure balanced growth.

Application Method and Timing:

This product can be used at all plant developmental stages, especially when growth is accelerated, stressed, or soil quality needs to be improved. It has a wide application window from seedling to harvest. It can be applied via foliar application or through soil application via drip irrigation. This product offers versatile support that both nourishes your plants and increases their resilience to environmental challenges.

Additional Indications and Details:

Improving Soil Microbiology and Nutrient Cycling: Organic matter provides a food source and habitat for soil microorganisms, significantly increasing microbial activity in the soil. These microorganisms accelerate nutrient cycling by converting bound nutrients (e.g., phosphorus and potassium) in the soil into forms that are available to plants. Furthermore, the proliferation of beneficial microbes can suppress the activity of harmful pathogens.

Indication: It is used primarily in soils that have been subjected to prolonged periods of intensive cultivation with chemical fertilizers, resulting in deterioration or reduced fertility. By "revitalizing" the soil, it creates a healthier and more sustainable agricultural environment in the long term. This applies to agricultural areas throughout Turkey, but offers particularly significant benefits in soils that are poor in organic matter or over-cultivated (e.g., Central Anatolia and parts of Southeastern Anatolia).

Optimizing Plant Nutrient Uptake and Utilization: Amino acids have the ability to chelate with plant nutrients (especially micronutrients). This chelation allows nutrients in the soil or fertilizer tank to be more easily and efficiently taken up by plant roots or leaves. It helps the plant utilize existing nutrient resources more efficiently. **Indication:** Used when plant uptake is problematic (e.g., high pH, low temperature), even when soil nutrients are sufficient, or when the goal is to increase nutrient utilization efficiency. This also enhances the effectiveness of other applied fertilizers. **Reducing Spraying Stress and Accelerating Recovery:** Amino acids are very effective in reducing the stress experienced by plants after pesticide or herbicide applications and accelerating recovery. Chemical applications can cause a temporary shock to plant metabolism; amino acids mitigate this shock, allowing the plant to return to normal growth more quickly.

Indication: Used in all plants (fruit trees, vegetables, field crops) that have intensive spraying programs or where stress-related growth retardation is observed in plants following spraying. **Enhancement of Chlorophyll and Protein Synthesis (Indirect Effect):** Although not directly a component of chlorophyll, amino acids are the building blocks necessary for the synthesis of chlorophyll and other proteins. When the plant receives these amino acids from external sources, it spends less of its own energy resources on these synthesis processes. This allows for greater chlorophyll production and overall protein synthesis.

Indication: Used when a darker green color and stronger, healthier vegetative growth are desired. This increases the plant's photosynthetic capacity, contributing to overall yield potential. These additional indications further demonstrate how the combination of organic matter and amino acids not only provides nutrients but also comprehensively improves soil vitality, plant resistance to environmental stresses, and overall physiological performance.

Fast Enlarger More Tonnage




PAT-TECH
TECHNOLOGY

Manufactured with
PAT-TECH
Technology

Guaranteed Content	: WW
Water-Soluble Potassium Oxide (K ₂ O)	: %25

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
Greenhouse Plants	0,5- 2L/da	200 - 400cc/100L water	It is applied at 15-20 day intervals, starting from the fruit development stage.
Industrial Plants	1 - 2L/da	200 - 300 cc/da	During fruit development
Open Field Vegetables	0,5 - 2L/da	200 - 400cc/100L water	It is applied at 15-20 day intervals, starting from the fruit development stage.
Pome and Stone Fruits	50 - 100cc/tree head	200 - 400cc/100L water	After flowering, when the fruits reach walnut size and on summer shoots
Strawberries	0,5 - 2L/da	200 - 400cc/100L water	It is applied at 15-20 day intervals, starting from the fruit development stage.
Vineyards	0,5 - 2L/da	200 - 400cc/100L water	Just before the clusters close, apply two applications 10-14 days apart until the grains soften.
Olives, Citrus	Depending on the tree's age, 50-200cc/tree head	200 - 400cc/100L water	30 days after flowering, on summer shoots



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Big-K



Big-K, 25% is a unique potassium source obtained with Special Potassium Activation Technology (PAT-TECH) at a low pH and containing high levels of organic acids, suitable for use in all plant nutrition programs. Produced from natural raw materials, it is a product suitable for those wishing to practice organic farming.

Potassium plays a role in many critical physiological processes in plants:

Water Management and Drought Resistance: It plays a key role in the opening and closing of stomata (pores), which regulate plant water uptake and transpiration. This increases the plant's resistance to water stress.

Disease and Pest Resistance: It strengthens cell walls, making plants more resistant to diseases and pests.

Fruit Quality and Yield: It directly affects fruit formation, growth, plumpness, color, flavor, and shelf life. It increases sugar, starch, and protein synthesis.

Root Development: It helps form strong and healthy root systems.

Photosynthesis and Energy Production: It supports the activation of enzymes during the photosynthesis process, enabling the plant to produce energy more efficiently.

Cold and Frost Resistance: It can increase plants' resistance to cold weather and frost.

Indications by Region and Crop in Turkey:

BIG-K is particularly effective when aiming for fruit set, quality improvement, and stress tolerance. Its use is recommended if soil analyses indicate potassium deficiency or during growing seasons when the plant's potassium needs are high.

Indications by Region and Plant in Turkey:

Mediterranean and Aegean Regions (Fruit and Vegetable-Intensive Regions):

Plants: Citrus fruits (oranges, tangerines, lemons), tomatoes, peppers, summer vegetables such as eggplants and cucumbers, strawberries, grapes, olives, bananas, and cotton.

Why: Due to intensive fruit and vegetable growing in these regions, the quality, size, color, and shelf life of the product are critical. BIG-K directly affects fruit fullness, sugar content, and color in these plants. It helps increase plant resistance, especially to heat stress and drought during the summer months.

Application Method and Timing:

Potassium is generally the nutrient most needed by plants during the post-flowering and fruit development stages.

Big-K can be applied via foliar application or soil application via drip irrigation.

Application dosages and timing should be determined based on the plant species, growth stage, and soil analysis results.

Robust Texture

Long Shelf Life



Guaranteed Content	: WW
Total Nitrogen	: % 8
Nitrate Nitrogen (NO ₃ -N)	: % 8
Water-Soluble Calcium Oxide (CaO)	: % 14
Water-Soluble Boron (B)	: % 0,2
Water-Soluble Molybdenum (Mo)	: % 0,05

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
Greenhouse Plants	2 - 3 L/da	100 - 300cc/100L water	1-2 applications are applied during the early development period, and once the fruits reach walnut size, 10-15 days apart to prevent softening and cracking.
Open Field Vegetables	2 - 3 L/da	200 - 300cc/da	1-2 applications are applied during the early development period, and once the fruits reach walnut size, 10-15 days apart to prevent softening and cracking.
Field Crops		100 - 200cc/100L water	After the stem formation and tuber formation are completed, 1-2 applications are made.
Fruit Trees	Depending on the tree's age, 50-200cc/tree head	200 - 250cc/100L water	1st Application: 10-15 days after fruit set 2nd Application: When fruits reach walnut size 3rd Application: 3 weeks before harvest, apply 3 times at 7-day intervals
Strawberries - Raspberries	2 - 3 L/da	150 - 250cc/100L water	It is applied 3 times at 10-15 day intervals after fruit formation.
Bananas	2 - 3 L/da	250cc/100L water	1st Application: After birth 2nd Application: During fruit development and before harvest
Vineyards	2 - 3 L/da	250cc/100L water	1st Application: After flowering 2nd Application: When fresh water begins to flow into the grains, 2 applications 15-20 days apart 3rd Application: 1 month before harvest
Cotton		200 - 300cc/100L water	The first application is made during comb formation and is repeated 15 days later.
Ornamental Plants and Cut Flowers	2 - 4 L/da	50 - 150cc/100L water	It is applied at 15-20 day intervals before bud formation and throughout the harvest season.



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Calci Force



Calci Force, maximizes calcium uptake with its special, rapid calcium transport system. It is a high-quality, rapidly available calcium source produced with Ca-Trans Technology (Ca-Trans TECH).

Indications: Combination of Nitrogen, Calcium, Boron, and Molybdenum. This liquid fertilizer is a versatile formulation that specifically supports vegetative growth of plants while also strengthening cell structure and improving flowering and fruit set. Each element has different and critical roles for the plant:

Nitrogen (8%, all Nitrate Nitrogen):

Importance: Promotes rapid and vigorous vegetative (leaf) development of the plant. It is the main component of chlorophyll synthesis, which is vital for photosynthesis. The nitrate form of nitrogen is a form that can be quickly absorbed by the plant and has a lower risk of leaching from the soil.

Indication: Used especially during the early growth stages of the plant when leaf and shoot development is desired.

Calcium Oxide (CaO) (14%):

Importance: A fundamental building block of cell walls, it increases the plant's physical strength. It prevents physiological disorders such as cracking and tip rot (in tomatoes) in fruits and vegetables. It also plays a role in root development and nutrient uptake.

Indication: Used in cases of quality problems (cracking, softening, tip rot) in fruits and vegetables, shortened storage life, or to prevent these problems. It increases the plant's stress tolerance.

Boron (B) (0.2%):

Importance: Essential for pollen germination and fertilization, which directly affects fruit set. It works in conjunction with cell wall formation, sugar transport, and calcium uptake.

Indication: Used during flowering and fruit set, especially in plants experiencing fertilization problems or targeting high yields. Boron deficiency can lead to flower drop and problems with fruit set.

Molybdenum (Mo) (0.05%):

Importance: Plays a critical role in nitrogen metabolism, particularly in the conversion of nitrate into plant-available form (nitrate reductase enzyme). It supports nitrogen fixation (fixing nitrogen from the air) in legumes.

Indication: Used to increase nitrogen utilization efficiency and enhance nitrogen-fixing capacity in legumes.

Indications by Region and Plant in Turkey:

This combination fertilizer provides versatile benefits, particularly for plants targeting rapid growth, high-quality fruit/vegetable production, and stress tolerance.

Application Method and Timing:

This fertilizer can be used across a wide range of applications, from the beginning of vegetative development through flowering and fruit set. The importance of boron and calcium is particularly high during pre-flowering and fruit formation. It can be applied via foliar application or soil application via drip irrigation. Application dosages and timing should be adjusted based on the plant species, growth stage, and soil analysis results.

Additional Indications and Details:

Increasing Plant Stress Tolerance:

Calcium: Strengthens plant cell walls, increasing plant resistance to environmental stressors such as heat, drought, salinity, or excessive rainfall. A strong cell structure reduces plant damage in such adverse conditions. **Molybdenum:** Thanks to its role in nitrogen metabolism, it helps plants reduce the stress caused by nitrogen deficiency. Molybdenum supplementation can be crucial, especially if the plant is unable to effectively utilize nitrate, even if the soil is abundant in nitrate form.

General Effect: This combination enhances plant adaptation, particularly in regions prone to high temperatures and drought, such as the Mediterranean and Southeastern Anatolia.

Improving Disease and Pest Resistance:

Calcium: Strong cell walls make it difficult for pathogens (disease-causing agents) to penetrate the plant. This creates a physical barrier, particularly against fungal and bacterial diseases.

Boron: Effective in the synthesis of certain compounds that play a role in the plant's defense mechanisms.

General Effect: By improving the plant's general health, it increases its natural resistance to diseases and pests. This is especially important in humid regions (Black Sea) or in areas with intensive monoculture (Mediterranean, Aegean).

Storage Life and Market Value Increase:

Calcium: Extends the post-harvest storage life of fruits and vegetables. By preserving cell integrity, it helps products stay fresh longer and increases their resistance to damage such as bruising and rotting. This, in turn, leads to a higher market value.

Boron: Its role in sugar and starch transport contributes to the development of quality, flavor, and aroma in fruits and vegetables.

General Effect: The use of this product significantly increases economic returns, especially in freshly consumed fruits and vegetables (strawberries, tomatoes, peppers, cherries, apples, etc.) and in products requiring long-distance transportation (citrus fruits, potatoes).

Reducing Chlorosis (Yellowing) Problems:

Nitrate Nitrogen: A key element for chlorophyll synthesis, which gives plants their basic green color. Because it can be quickly absorbed in nitrate form, it quickly eliminates leaf yellowing (chlorosis) caused by nitrogen deficiency.

Molybdenum: Reduces the risk of chlorosis due to nitrogen deficiency by enabling more efficient utilization of nitrogen within the plant.

General Effect: Helps plants achieve a more vibrant and healthy green color, especially in the early stages of plant development or when nitrogen uptake is insufficient. These additional indications demonstrate that this type of formulation not only addresses basic nutrient deficiencies but also enhances the plant's overall health, resilience, and commercial value.

non-binding Phosphorus



Guaranteed Content	: WW
Total Nitrogen (N)	: 5
Urea Nitrogen (NH-N)	: 5
Water Solubility Phosphorus Pentoxide (P ₂ O ₂)	: 25

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
All Greenhouse Vegetables (Tomatoes, Peppers, Zucchini, Eggplant, Cucumber)	1 - 2 liter / da	150-200 cc per 100 liters of water	Weekly applications starting from the seedling period
All Open Field Vegetables (Tomatoes, Peppers, Zucchini, Eggplant, Cucumber)	2 - 2,5 liter / da	150-200 cc per 100 liters of water	After transplanting the seedlings, applications are made at 21-day intervals throughout the season.
All Winter Vegetables (Lettuce, Lettuce, Leek, Spinach, Iceberg Lettuce, Cabbage)	2 - 2,5 liter / da	150-200 cc per 100 liters of water	Applications are made throughout the season at 21-day intervals, starting from the seedling period.
All Fruit Trees (Apple, Pear, Cherry, Apricot, Quince)	2,5 - 4 liter / da	150-200 cc per 100 liters of water	After the mouse ear period, 21 days until harvest
Bananas and Citrus Fruits	2,5 - 4 liter / da	250-300 cc per 100 liters of water	throughout the entire developmental period
Viticulture, Strawberry and Cut Flower Production	2 - 3 liter / da	150-200 cc per 100 liters of water	Applications are made throughout the season at 21-day intervals after flowering.
All Tuberous Plants (Melon, Watermelon, Onion, Potato, Turnip, Carrot, Sugar Beet, Garlic)	2 - 2,5 liter / da	250-300 cc per 100 liters of water	It is applied throughout the season at 15-day intervals after the second hoe.
All Legumes (Chickpeas, Lentils, Beans, Soybeans, Peanuts)	2 - 3 liter / da	250-300 cc per 100 liters of water	After the second hoe, 2-3 applications are made at 15-day intervals.
All Industrial Plants (Cotton, Corn, Tea, Sunflower, Tobacco)	2 - 3 liter / da	250-300 cc per 100 liters of water	It is applied throughout the season at 21-day intervals from the first hoe.
All Field Crops (Wheat, Barley, Rice, Oats)	-----	250-300 cc per 100 liters of water	With weed killer and during tillering period
In Green Fields and Forage Crops (Alfalfa, Sainfoin, Vetch)	-----	250-300 cc per 100 liters of water	Ten days after each mowing



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Soil



Soil, a High Phosphorus Starter and Energy Fertilizer. This liquid fertilizer is formulated to support strong root systems, abundant and healthy flowering, energy production, and early fruit/seed set, especially in the early developmental stages.

Phosphorus Pentoxide (P₂O₅) (25%):

Importance: Key to plant energy metabolism (ATP). It is vital for energy-intensive processes such as root development, cell division, flowering, seed and fruit formation. It plays a central role in photosynthesis and respiration. Phosphorus deficiency causes stunted plant growth, purple leaf color (especially in cold weather), and reduced yields.

Indication: Accelerating Root Development: Used in the initial stages of planting seedlings, sowing seeds, or planting trees to create a strong root system that will better anchor the plant in the soil. In regions like Konya, where springs can be cold and rainy, it can be difficult for young plants to absorb phosphorus; this fertilizer provides phosphorus directly accessible to the plant. Encouraging Flowering: Applied before and at the beginning of flowering, it supports the formation of more and higher-quality flowers and reduces flower drop. Increasing Fruit and Seed Set: Increases fertilization success and contributes to the healthy development of fruits and seeds. Meeting Energy Needs: Helps the plant recover by meeting its energy needs during rapid growth spurts or under stress (cold, heat, drought).

Nitrogen (N) (5%) (Urea Nitrogen):

Importance: Supports plant vegetative (leaf) development. Urea nitrogen can be rapidly absorbed by the plant from both the leaves and the soil, and when combined with the energy support of phosphorus, it increases the plant's overall growth rate.

Indication: Used to balance the root and flower development provided by high phosphorus with the plant's overall foliage and shoot growth. This keeps not only the reproductive organs but also the entire vegetative structure of the plant healthy.

Indications by Region and Plant Type in Turkey:

This high-phosphorus fertilizer can be used in all regions, especially where the initial and flowering stages of the plant are critical.

All Regions (Especially in the Early Development and Flowering Period):

Plants: All seedlings, newly planted plants, seedling vegetables (tomatoes, peppers, eggplants, cucumbers), grains (wheat, barley - before tillering and staking), legumes (beans, chickpeas, lentils - before flowering), fruit trees (apples, cherries, peaches, citrus, olives, hazelnuts - before flowering).

Why: Reduces shocking during planting and promotes rapid rooting. It contributes to increased yields by encouraging flowering and fruit set.

Application Method and Timing:

This fertilizer should be applied particularly during the initial plant development, rooting, tillering, pre-flowering, and flowering stages. It can be applied via foliar application or through soil application via drip irrigation. Application dosages and timing should be adjusted based on the plant species, growth stage, and soil/leaf analysis results.

Additional Indication: Energy Storage and Resistance to Stress Conditions: High Phosphorus (P₂O₅) content increases the plant's energy storage (ATP/ADP). This allows the plant to build an energy reserve that can be quickly utilized in stressful situations (such as sudden temperature drops, drought, overwatering, disease/pest pressure, or mechanical damage). When the plant has easier access to energy, it can activate its defense mechanisms more quickly, repair damaged tissues, and minimize growth retardation.

Indication: Used to increase plant resistance and resilience to stress, particularly in regions like Konya, where summers are hot and dry, winters can be cold, and extreme climatic events (severe heat waves, sudden frosts, prolonged droughts) are frequently experienced. This reduces plant exposure to adverse conditions and minimizes yield losses. This energy boost is vital for young and seedling plants.

Good Soil Strong Root



Guaranteed Content	: WW
Organic Matter	: % 15
Total (Humic Acid + Fulvic Acid)	: % 15
Water-Soluble Potassium Oxide (K ₂ O)	: % 4
pH Range	: % 8,2-10,2

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
Field Crops	0,5 - 2L/da	100 - 200cc/da	After the soil is prepared for planting, it is mixed with a sufficient amount of water and applied. It is applied with irrigation water during the plant's growth stages. After planting, it is applied foliarly, along with foliar fertilizers and herbicides.
Open Field Vegetables	1 - 2L/da	100 - 200cc/ 100 L water	It is applied to the soil before planting. It is applied with irrigation water during the plant's development stages. It is applied foliarly during the flowering, growth, and fruit development stages after planting.
Orchards	1 - 3L/da	100 - 200cc/ 100 L water	It is applied to the soil at the beginning of vegetative growth. It is applied with irrigation water during the plant development stages. Topical applications are made during the plant development stages.
Melon, Watermelon, Cucumber, Pumpkin	1 - 2L/da	100 - 200cc/ 100 L water	It is applied to the soil before planting. It is applied with irrigation water during the plant's growth stages. After planting, foliar application is applied when the plants reach a height of 10-15 cm or begin to sprout.
Beet	1 - 2L/da	200 - 300cc/ 100 L water	The first application is made at the 4-6 leaf stage, and the second application is made after hoeing and 45 days before harvest. Foliar application is made at the 4-6 leaf stage and before hoeing, before the beet is harvested.
Greenhouse and Ornamental Plants	1 - 3L/da	100 - 200cc/ 100 L water	It is applied by mixing it with water during the normal development period of the plants.



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Plus



Plus, is a formulation with an alkaline pH, containing high levels of humic and fulvic acids, supplemented with organic matter and potassium.

Indications: Soil Conditioner and Nutrient Uptake Enhancer. This liquid fertilizer is a soil conditioner and plant activator that improves the physical, chemical, and biological properties of the soil, rather than directly providing plant nutrients, allowing plants to absorb nutrients more effectively.

Organic Matter (15%) and Total (Humic Acid + Fulvic Acid) (15%):

Importance: Humic and fulvic acids are the most active components of organic matter. They act as a sponge in the soil, increasing water retention capacity and improving soil aeration and workability. They stabilize soil structure by encouraging the aggregation of soil particles (aggregate formation). They convert bound nutrients (especially micronutrients such as phosphorus, iron, and zinc) into plant-available forms by chelating or solubilizing them. They increase soil microorganism activity and directly stimulate plant root development.

Indication: Improving Soil Structure: Used to increase soil workability, promote aeration, and improve water retention capacity, particularly in compacted, heavy clayey, or sandy soils with poor organic matter (common in all regions of Türkiye). Increasing Nutrient Uptake: Used when plant uptake is problematic (e.g., high pH, low temperature), even when soil nutrients are sufficient, or when the goal is to increase nutrient use efficiency. This also enhances the effectiveness of other applied fertilizers. Facilitating nutrient uptake is critical for the calcareous and alkaline soils of Türkiye's Central Anatolia, Southeastern Anatolia, and Mediterranean regions.

Encouraging Root Growth: Humic substances directly stimulate the growth and spread of plant roots, allowing the plant to take in more water and nutrients.

Stimulating Soil Microbiology: Serving as a food source and habitat for soil microorganisms, they significantly increase microbial activity in the soil, accelerating nutrient cycling.

Reducing Salt Stress: In saline soils (especially in some irrigated agricultural areas such as the Konya Plain and Çukurova), they can increase plant tolerance to salt and help reduce its harmful effects.

Water-Soluble Potassium Oxide (K₂O) (4%):

Importance: Necessary for plant water management, photosynthesis, enzyme activation, and stress tolerance. Along with humic substances, it plays a role in supporting nutrient uptake.

Indication: In addition to its soil conditioning properties, it provides potassium supplementation to improve the plant's overall health and stress resistance.

pH Range (8.2 - 10.2):

Importance: This alkaline pH range indicates that the product may tend to raise pH in acidic or neutral soils. However, thanks to the buffering capacity of humic substances, it can improve nutrient uptake without significantly altering soil pH. In alkaline soils, it plays a role in supporting nutrient uptake without significantly affecting the existing pH.

Indication: It should be considered especially when raising the pH of acidic soils or maintaining stability in neutral soils.

Indications by Region and Plant in Turkey:

This product has a wide range of applications in all regions of Türkiye when it comes to improving soil health and optimizing plant nutrient uptake.

All Regions (Agricultural Intensity and Soil Exhaustion):

Plants: All crops that have been cultivated for many years (grains, vegetables, fruits).

Why: Intensive farming and the use of synthetic fertilizers can cause soil organic matter loss and structure to deteriorate. This product supports consistent yields by revitalizing the soil and optimizing plant nutrient uptake.

Sandy and Heavy Clay Soils (General):

Plants: All plants.

Why: Improves water and nutrient retention in sandy soils and aeration and workability in clay soils.

Application Method and Timing: This product can be used at all plant development stages, especially during soil preparation, before and after planting/sowing, and during active growth periods. It can be applied to soil via drip irrigation or by seed drenching/dipping. Foliar application is also possible, but its primary effect is achieved in the soil. Dosages and timing should be adjusted according to plant type, growth stage, soil analysis, and climatic conditions.

Additional Indication: Hormonal Activity and Growth Regulation: Humic and fulvic acids, naturally occurring in plants, may exhibit hormone-like activity in regulating growth. Specifically, they exhibit auxin-like effects, promoting root development, cell division, and elongation. This increases the plant's overall growth rate and potential. They also help maintain hormone balance, allowing the plant to adapt better under stress conditions.

Indication: Used to promote faster, healthier plant growth and strong development from seedling to harvest. It can help overcome hormonal balance, particularly in slow-growing or stunted plants. This effect allows the plant to utilize nutrients more efficiently and be more resilient to environmental stresses, thus improving overall yield and quality.

Healthy Soil Full Yield



Guaranteed Content	: WW
Organic Matter	: % 35
Organic Carbon	: % 10
Total Nitrogen	: % 1
Water Solubility Potassium Oxide	: % 4
pH Range	: 4,3 - 6,3

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
All Greenhouse Vegetable Cultivation Tomatoes, Peppers, Eggplants, Cucumbers, Strawberries, etc.	2500 - 300cc/da	500 - 600cc/ 100 per liter of water	It is applied at 10-day intervals from planting until before harvest.
All Open Field Vegetable Cultivation Tomatoes, Peppers, Eggplants, Cucumbers, Strawberries, etc.	2000 - 2500cc/da	400 - 500cc/ 100 per liter of water	It is applied in 2-3 repetitions at 21-day intervals from planting until just before harvest.
Winter Vegetables with All Edible Leaves Cauliflower, Leeks, Spinach, Lettuce, Lettuce, etc.	2000 - 2500cc/da	400 - 500cc/ 100 per liter of water	It is applied in 2-3 repetitions at 21-day intervals from planting until just before harvest.
All Tuberos Plants Onions, Garlic, Carrots, Potatoes, Sugar Beet, Turnips, etc.	2000 - 2500cc/da	400 - 500cc/ 100 per liter of water	It is applied in 3-4 repetitions at 21-day intervals starting from planting.
Melon, Watermelon, Pumpkin	2000 - 2500cc/da	400 - 500cc/ 100 per liter of water	It is applied in 2-3 repetitions at 21-day intervals starting from planting.
Cut Flowers	2000 - 2500cc/da	400 - 500cc/ 100 per liter of water	It is applied in 2-3 repetitions at 15-21 day intervals from planting until the end of harvest.
All Fruit Trees / Apple, Pear, Peach, Apricot, Quince, Cherry, Sour Cherry, Almond Vineyard, Olive, Banana, Citrus	3000 - 3500cc/da or 150cc/Tree - 50cc vine	600 - 700cc/ 100 per liter of water	Three applications are recommended. 1. Just before bud break and flowering 2. During fruit formation - 3. Until the end of harvest
All Industrial Plants Corn, Tobacco, Cotton, Sunflower	2000 - 2500cc/da	400 - 500cc/ 100 per liter of water	It is applied throughout the season at 21-day intervals from the first hoe.
All Legumes / Lentils, Chickpeas, Beans, Soybeans, Peanuts	2000 - 2500cc/da	400 - 500cc/ 100 per liter of water	It is applied throughout the season at 21-day intervals from the first hoe.
All Field Crops Barley, Wheat, Rice, Oats, etc.	2000 - 2500cc/da	400 - 500cc/ 100 per liter of water	It is applied with weed killer and during the tillering period.
All Forage Crops and Green Areas Clover, Sainfoin, Vetch	2000 - 2500cc/da	400 - 500cc/ 100 per liter of water	Applied ten days after each mowing



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Ferona



Ferona, Soil Organic Matter Improver and Plant Growth Supporter This liquid fertilizer aims to improve the physical, chemical and biological properties of the soil in the long term by increasing the organic matter content, optimizing plant nutrient uptake and supporting overall plant health.

Organic Matter (35%) and Organic Carbon (10%):

Importance: It is the foundation of soil fertility. It increases the soil's water-holding capacity, improves aeration, and reduces soil compaction. It increases the retention and plant uptake of nutrients (especially cations) (Cation Exchange Capacity - KDK). It provides a habitat and nutrient source for soil microorganisms, accelerating nutrient cycling and soil biological activity.

Indication: Improvement of Organic Matter-Poor Soils:

It is used to increase soil fertility and health in soils deficient in organic matter, intensively cultivated, or eroded in many regions of Türkiye (especially Central Anatolia and Southeastern Anatolia).

Improving Soil Structure: By improving soil aggregate structure in compacted, heavy clay, or sandy soils, it supports aeration, water infiltration, and root development.

Increasing Nutrient Retention Capacity: This increases the soil's ability to retain and gradually release nutrients to the plant, increasing fertilizer efficiency and reducing nutrient leaching.

Total Nitrogen (N) (1%):

Importance: Along with organic matter, it provides a low but constant source of nitrogen for plant growth. Organic nitrogen gradually becomes available to the plant through the activity of soil microorganisms.

Indication: It contributes to the overall nutrient balance of the soil and supports microbial activity.

Water-Soluble Potassium Oxide (K₂O) (4%):

Importance: Necessary for plant water management, photosynthesis, enzyme activation, disease resistance, and fruit quality. It plays a role in supporting nutrient uptake along with organic matter.

Indication: In addition to its soil conditioning properties, it provides potassium supplementation to improve the plant's overall health and stress resistance.

pH Range (4.3 - 6.3):

Importance: This slightly acidic pH range means the product can help facilitate plant uptake of micronutrients (iron, zinc, manganese, etc.) in alkaline (high pH) soils. It can also be used safely in neutral or slightly acidic soils.

Indication: Provides the additional benefit of supporting nutrient uptake in calcareous and high pH soils, particularly in Central Anatolia, Southeastern Anatolia, and the Mediterranean regions.

Indications by Region and Crop Type in Turkey:

This product is particularly important in various regions of Türkiye, especially in soils experiencing organic matter deficiency and in all agricultural areas where long-term soil health improvement is desired.

All Regions (Intensive Farming and Soil Depletion Areas):

Plants: All crops that have been cultivated for many years.

Why: Continuous cultivation and the use of synthetic fertilizers deplete soil organic matter. This product helps restore the soil's natural fertility and support sustainable agricultural practices.

Sandy and Heavy Clay Soils (General):

Plants: All plants. Reason: Improves water and nutrient retention in sandy soils and aeration and workability in clay soils.

Application Method and Timing:

This product is generally applied to the soil during soil preparation, before or after planting/sowing. It can be applied to the soil via drip irrigation or spraying. Regular use is recommended due to its long-term effects.

Application dosage and frequency should be adjusted according to the existing organic matter content of the soil, plant type and the targeted level of improvement.

Robust Texture Robust Flower



Guaranteed Content	: WW
Water Solubility Boron (B)	: % 8
Water Solubility Cobalt (Co)	: % 0,05
Water Solubility Molybdenum (Mo)	: % 0,05

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
Greenhouse Plants	300 - 450cc/da	150 - 200cc/ 100 per liter of water	2-3 applications at 25 day intervals
Sugar Beet, Soybean, Corn, Sunflower	300 - 450cc/da	200 - 250cc/ 100 per liter of water	From the 4 - 6 leaf stage
Open Field Vegetables	300 - 450cc/da	100 - 200cc/ 100 per liter of water	2 - 3 applications at 15 day intervals
Strawberry	300 - 450cc/da	100 - 200cc/ 100 per liter of water	2 - 3 applications at 25 day intervals
Bond	300 - 450cc/da	100 - 200cc/ 100 per liter of water	2-3 applications at 25-day intervals, starting from the ripening period
Olives, Hazelnuts	300 - 450cc/da	100 - 150cc/ 100 per liter of water	2 applications before flowering and before harvest



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Combo



Combo, is a unique formulation containing boron, molybdenum, and cobalt. It contains sugar alcohol complexes of molybdenum and cobalt, which work synergistically with the boronethanolamine complex, allowing the plant to absorb them quickly and are ready to use.

Indications: Flowering, Fertilization, and Nitrogen Utilization Booster Combo is designed to increase flowering success, optimize fertilization, and improve nitrogen metabolism in plants.

Water-Soluble Boron (B) (8%):

Importance: It is vital for pollen production, pollen germination, and pollen tube growth in plants. It plays a role in sugar transport, cell wall formation, and hormone regulation. Boron deficiency leads to flower drop, reduced fruit set, and deformities in growing points.

Indication: Used especially during the flowering and fruit/seed set periods. It ensures a higher fertilization rate, less flower and fruit drop, resulting in higher yields and higher quality products. It is critical for fruit trees such as apple, pear, and cherry, vegetables such as tomatoes and peppers, cotton, and sunflowers. It strengthens the plant's fertilization capacity, especially in regions like Konya, where there is a risk of spring frost, and reduces the impact of adverse conditions.

Water-Soluble Cobalt (Co) (0.05%):

Importance: It is a cofactor for the nitrogenase enzyme, which plays a critical role in the nitrogen fixation process, which binds atmospheric nitrogen to the soil, particularly in legume plants. It also helps increase plant resistance to drought and other stress conditions.

Indication: It helps meet the plant's natural nitrogen needs by optimizing nitrogen fixation in legume plants (chickpeas, lentils, beans, peanuts). It also supports plants' general stress tolerance.

Water-Soluble Molybdenum (Mo) (0.05%):

Importance: It is vital for nitrogen metabolism in plants, particularly in the conversion of nitrate into usable forms within the plant (nitrate reductase enzyme) and plays a critical role in nitrogen fixation (nitrogenase enzyme).

Indication: It enables plants to use nitrogen more efficiently and helps prevent nitrogen deficiency symptoms. It maximizes nitrogen fixation, especially in legumes, when combined with cobalt. Although molybdenum deficiency is more common in acidic soils, this product has a wide range of applications.

Synergistic Effect: The combination of these three microelements specifically targets plant reproductive physiology (flowering, fertilization, seed/fruit set) and nitrogen use efficiency, providing maximum support during one of the most critical stages of plant development.

Indications by Region and Plant Type in Turkey:

This product can be used in all regions where flowering and fruit/seed set are particularly critical.

Fruit Trees and Vineyards (All Regions):

Plants: Apple, pear, cherry, peach, apricot, plum, olive, citrus, hazelnut, grape.

Why: Boron is essential for pollen quality and fruit set in these plants. It is ideal for increasing fertilization success, especially after late spring frosts or in adverse conditions. It can reduce the formation of empty hazelnuts in hazelnuts.

Vegetables (All Regions):

Plants: Tomatoes, peppers, eggplant, cucumber, beans, peas, melons, watermelons.

Why: It promotes abundant and high-quality flowering, increases fruit set, and directly affects harvest quantity. It supports nitrogen fixation in legume vegetables.

Field Crops (All Regions, Especially Legumes and Oilseed Crops):

Plants: Wheat, barley, corn, cotton, sunflower, soybean, chickpea, lentil.

Why: Increases grain/seed filling and quality in cereals and sunflowers. By maximizing nitrogen fixation in legumes, it helps the plant meet its nitrogen needs naturally, which can reduce chemical nitrogen use.

Application Method and Timing:

This fertilizer is generally applied during the pre-bloom, early-bloom, and fruit/seed-set stages of the plant. Foliar application ensures rapid uptake of nutrients by the plant and provides immediate effects. Application dosages and timing should be determined based on plant species, growth stage, and soil/leaf analysis results.

Additional Indication: Increasing Abiotic Stress Tolerance: Boron (B) is critical for maintaining the integrity and function of plant cell walls. This increases the plant's physical resistance to abiotic stress factors such as drought, salinity, or extreme temperatures. Cobalt (Co) and Molybdenum (Mo) support the overall stress response through indirect effects on plant nitrogen metabolism and hormone balance. Cobalt's role in regulating ethylene synthesis (a stress hormone) in particular can reduce negative plant responses under stress.

Indication: Used to increase plant resistance to environmental stresses, particularly in regions like Konya, where summers are hot and dry, winters can be cold, and extreme climatic events (severe heat waves, sudden frosts, prolonged droughts) are frequently experienced. This reduces plant exposure to adverse conditions and minimizes yield losses. It directly supports the plant's overall vitality and adaptability.

Balanced Growth switch



Guaranteed Content	: WW
Organic Matter	: % 20
Total Nitrogen (N)	: % 9
Organic Nitrogen	: % 0.5
Urea Nitrogen (NH ₂ -N)	: % 8.5
Total Phosphorus Pentoxide (P ₂ O ₅)	: % 6
Water-Soluble Phosphorus Pentoxide (P ₂ O ₅)	: % 6
Water-Soluble Potassium Oxide (K ₂ O)	: % 3
Water-Soluble Boron (B)	: % 0.1
Water-Soluble Cobalt (Co)	: % 0.03
Water-Soluble Iron (Fe)	: % 0.5
Water-Soluble Manganese (Mn)	: % 0.2
Water-Soluble Molybdenum (Mo)	: % 0.02
Water-Soluble Zinc (Zn)	: % 1
Free Amino Acids	: % 1
Maximum Chlorine (Cl)	: % 0.23
pH Range	: 1-3

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
All Greenhouse Vegetables Tomatoes, Peppers, Eggplants, Cucumbers, Strawberries	1-2 Litre /da	250-300 ml 100 per liter of water	It is applied in 4-6 repetitions, one week apart, starting from planting.
All Open Field Vegetable Farming Tomatoes, Peppers, Eggplants, Cucumbers, Strawberries, etc.	1-2 Litre /da	300-350 ml/ 100 per liter of water	It is applied in 2-3 repetitions at 15-20 day intervals from planting.
Winter Vegetables with All Edible Leaves Cauliflower, Leeks, Spinach, Lettuce, Lettuce, Iceberg Lettuce,	1-2 Litre /da	300-350 ml/ 100 per liter of water	It is applied in 2-3 repetitions at 20-30 day intervals from planting.
Melon, Watermelon, Pumpkin etc.	1-2 Litre /da	300-350 ml/ 100 per liter of water	It is applied in 2-3 repetitions at 20-30 day intervals from planting.
All Tuberos Plants Onions, Garlic, Potatoes, Carrots, Radish, Sugar Beet	1-2 Litre /da	300-350 ml/ 100 per liter of water	At the beginning of flowering and during the tuber formation period
In Cut Flowers	1-2 Litre /da	300-350 ml/ 100 per liter of water	It is applied in 2-3 repetitions at 15-20 day intervals from planting until the end of harvest.
All Fruit Trees / Apple, Pear, Peach, Apricot, Quince, Cherry, Sour Cherry, Almond Vineyard, Olive, Citrus, etc.	2-2.5 liters/da or 75-100 ml/tree	350-400 ml/ 100 per liter of water	Three applications are recommended. 1. Pre-bloom bud stage 2. During fruit formation / 3. During fruit development
All Industrial Plants Corn, Soybeans, Chickpeas, Beans, Lentils Tobacco, Cotton, Sunflower, Tea	2-2,5 Litre /da	1300-350 ml/ 100 per liter of water	After the plants reach 10-15 cm in height, 2-3 applications are made at 20-day intervals.
All Field Crops Wheat, Barley, Rice, Oats	2-2,5 Litre /da	300-350 ml/ 100 per liter of water	Weed killer is applied during the tillering period.
In Green Fields and Forage Crops Clover, Sainfoin, Vetch	2-2,5 Litre /da	300-350 ml/ 100 per liter of water	Applied ten days after each harvest.



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Cosmix



Cosmix, stands out as a versatile nutritional supplement, boasting a rich and balanced content of macronutrients (N, P, K) and micronutrients (B, Co, Fe, Mn, Mo, Zn), as well as organic matter and free amino acids. Its low pH (1-3) is also a key feature.

Cosmix Indications: Comprehensive NPK + Micronutrient + Organic Ingredient Formulation. This liquid fertilizer is an all-in-one product that aims to support overall plant growth, nutrient balance, stress resistance, and soil health throughout all plant developmental stages.

Organic Matter (20%): Increases soil water retention and aeration, facilitates the uptake of nutrients, and promotes soil microorganism activity. Increases soil fertility in the long term.

Nitrogen (N) (9%): Promotes rapid plant vegetative development, leaf and stem growth. The urea nitrogen form provides a rapid and balanced effect.

Phosphorus (P₂O₅) (6%): Vital for root development, flowering, seed and fruit formation. Supports plant energy metabolism.

Potassium (K₂O) (3%): Impacts water management, disease resistance, fruit quality (color, flavor, size), and shelf life.

Free Amino Acids (1%): Accelerates plant recovery from stress conditions (drought, heat, pesticide shock), facilitates nutrient uptake, and conserves energy for overall growth.

Microelements (B, Co, Fe, Mn, Mo, Zn): **Boron (B):** Critical for pollen germination and fruit set.

Cobalt (Co): Important for nitrogen fixation and plant development, especially in legumes.

Iron (Fe): Key for chlorophyll synthesis and photosynthesis.

Manganese (Mn): Necessary for photosynthesis and enzyme activities.

Molybdenum (Mo): Plays a critical role in nitrogen metabolism and nitrate utilization.

Zinc (Zn): Essential for growth hormone auxin synthesis and protein metabolism.

Synergistic Effect: This rich combination of microelements ensures the smooth functioning of all basic physiological processes in the plant, prevents hidden nutrient deficiencies and increases the plant's overall metabolic activity and photosynthetic efficiency.

Low pH Range (1-3): This low pH offers a significant advantage, especially in high-pH (alkaline) and calcareous soils. In alkaline soils, many nutrients, such as iron, zinc, manganese, and phosphorus, become bound and unavailable to plants. This acidic fertilizer acidifies the surrounding soil microenvironment, allowing these elements to be more readily absorbed by the plant.

Indication: Ideal for solving nutrient uptake problems and alleviating deficiency symptoms such as chlorosis (yellowing), especially in calcareous and high-pH soils in Central Anatolia, Southeastern Anatolia, the Mediterranean, and Aegean regions. It can also increase compatibility with other products by preventing certain chemical reactions in tank mixes.

Indications by Region and Crop in Turkey:

This versatile fertilizer is suitable for a wide range of plants in Türkiye's diverse soil and climate conditions.

All Regions (General Plant Development and Stress Management):

Plants: All seedlings, saplings, and young plants; plants under stress at any stage of growth (planting shock, drought, heat, cold, post-spray); all commercial plants targeting high yield and quality.

Why: Comprehensive NPK and micronutrient support ensures balanced growth. Organic matter strengthens the soil, while amino acids strengthen the plant. The balanced combination of all these elements increases the plant's resistance to environmental challenges and ensures a healthy metabolism.

Application Method and Timing:

This fertilizer can be used across a wide range of applications, from the beginning of vegetative growth to fruit formation. It supports rooting and a strong start, particularly in the early growth stages, while maintaining nutrient balance during flowering and fruit development. It promotes rapid plant recovery during periods of stress (e.g., weather changes, spraying, etc.). It can be applied via foliar application or through soil application via drip irrigation. Due to its low pH, caution should be exercised, especially in tank mixes, and compatibility with other products should be tested. This product is a versatile and powerful solution that not only nourishes your plants with essential nutrients, but also increases their resistance to environmental stresses, improves soil health, and optimizes nutrient uptake.

Additional Indications and Details:

Increasing Fertilization Rates and Seed/Fruit Set Success: Boron (B) and Zinc (Zn) in the product are vital for pollen production, pollen viability, and pollen tube growth toward the pistil. Phosphorus (P) provides the energy necessary for flowering and seed/fruit formation. Furthermore, amino acids reduce the plant's energy expenditure during fertilization, ensuring a more efficient process.

Indication: Used in plants where fertilization and fruit/seed set are critical, particularly fruit trees (apple, cherry, peach, citrus, olive, hazelnut), grapes, vegetables (tomato, pepper, eggplant), and legumes. It reduces fruit drop or empty seed formation caused by lack of fertilization. This provides additional protection for the plant, especially during flowering periods affected by spring frosts or adverse weather conditions (excessive heat/cold).

Strengthening Plant Defense Mechanisms (Indirect Effect): The various microelements it contains (Fe, Mn, Cu, Zn) are essential for the plant's defense enzymes and antioxidant systems. Organic matter and amino acids, on the other hand, increase the plant's overall stress tolerance and strengthen its natural resistance to pathogens and pests.



Copper supplement



Guaranteed Content	: WW
Water-Soluble Copper (Cu)	: % 4

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
All Greenhouse and Greenhouse Vegetables Tomatoes, Peppers, Eggplants, Cucumbers, etc.	750-1000 ml 863-1150 g/da	150-200ml per 100 liters of water 173-230 g 1-2 liters / da	Three weeks after sowing and planting, two or three or four applications are made at 21-day intervals.
All Open Field Vegetables / Tomatoes, Peppers, Eggplants, Cucumbers, etc.	750-1000 ml 863-1150 g/da	150-200ml - 173-230g per 100 liters of water	Two or three applications are made at 15-day intervals before and after flowering.
All Winter Vegetables / Iceberg Lettuce, Leek, Spinach, Cabbage, etc.	750-1000 ml 863-1150 g/da	150-200ml - 173-230g per 100 liters of water	The first application is made when the plants are in the 3-4 leaf stage, and the second application is made 15 days later.
Cut Flower Strawberry	750-1000 ml 863-1150 g/da	150-200ml - 173-230g per 100 liters of water	Three weeks after sowing and planting, two or three applications are made at 21-day intervals.
Melon, Watermelon and Pumpkin	500-750 ml 575-863 g/da	100-150ml - 115-173g per 100 liters of water	Three applications are made 15 days apart, before and after flowering.
All Tuberos Plants / Onions, Potatoes, Turnips, Carrots, Radish, Sugar Beet, Garlic, etc.	500-750 ml 575-863 g/da	100-150ml - 110-165g per 100 liters of water	Three applications are made 15 days apart, before and after flowering.
in the vineyards	750-1000 ml 863-1150 g/da	150-200ml - 173-230g per 100 liters of water	Two applications are made, one before flowering and one during the grape ripening period.
Banana	1000-1250 ml 1150-1438 g/da	-----	30-40 days before birth 2-3 applications are performed
All Stone Fruits / Apples, Pears, Apricots, Peaches, Plums, Cherries, Pomegranates	1000-1250 ml 1150-1438 g/da	to 100 liters of water 200-250ml - 230-288g	Pre-bloom, post-bloom, and fruit development stages 2-3 applications at 15-day intervals
Citrus Fruits / Hazelnuts, Olives, Figs, Pistachios, Almonds	1000-1250 ml 1150-1438 g/da	to 100 liters of water 200-250ml - 230-288g	Pre-bloom, post-bloom, and fruit development stages 2-3 applications at 15-day intervals
All Legumes / Chickpeas, Beans, Lentils, Soybeans, Peanuts	500-750 ml 575-863 g/da	100-150 ml - 115-173 g per 100 liters of water	After hoeing, 2-3 applications are made at 15-day intervals.
All Industrial Crops Cotton, Corn, Tea, Sunflower, Tobacco	500-750 ml 575-863 g/da	100-150 ml - 115-173 g per 100 liters of water	After hoeing, 2-3 applications are made at 15-day intervals.
All Field Crops Wheat, Barley, Rice, Oats	500-750 ml 575-863 g/da	100-150 ml - 115-173 g per 100 liters of water	With herbicide and during the tillering period.
In Green Fields and Forage Crops Clover, Sainfoin, Vetch	500-750 ml 575-863 g/da	100-150 ml - 115-173 g per 100 liters of water	10 days after each mowing



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Cuatro



Cuatro, is an extremely effective liquid copper fertilizer complexed with organic acids and highly plant-available fatty acids. This prevents copper from causing toxicity or copper stress.

It is designed to address copper deficiency in plants, increase photosynthetic efficiency, and strengthen the plant's natural defense mechanisms. Copper is both a micronutrient and, in some cases, an element that can exhibit fungicidal and bactericidal properties.

Copper (Cu) (4%):

Importance: Copper is a key component of enzymes involved in many essential metabolic processes in plants, such as photosynthesis, respiration, and lignin synthesis (a structural polymer that strengthens cell walls). It is essential for chlorophyll formation. It improves plant cell wall integrity and physical strength. It also increases plant resistance to certain plant diseases (especially fungal and bacterial).

Indication: Correction of Copper Deficiency: Used when copper deficiency symptoms (yellowing of young leaves, stunted growth, shoot tip death, flower/fruit drop, and reduced grain formation in cereals) are observed in plants. Copper deficiency can be observed in many regions of Türkiye, particularly in soils with high organic matter content, sandy soils, or high pH (alkaline) soils.

Increasing Photosynthetic Efficiency: Copper, as an activator of enzymes involved in chlorophyll synthesis and photosynthesis, allows the plant to photosynthesize more efficiently and, consequently, produce more energy. This supports overall growth and yield.

Enhancing Disease Resistance: Copper has properties that support plant defense mechanisms and can be directly or indirectly effective against certain pathogens. It strengthens plant cell walls, creating a physical barrier. It provides a protective effect, particularly in humid regions (e.g., the Black Sea Region) where fungal and bacterial diseases are common, or in sensitive plants.

Improving Product Quality: It helps improve fruit quality, color, and storage life in some plants (e.g., fruit trees, vegetables).

Indications by Region and Plant in Turkey:

Cuatro can be used throughout Türkiye, especially in soils or plants at risk of copper deficiency, or to support plant health and photosynthesis.

It is highly effective against powdery mildew, mildew, and root rot. Thanks to its special organic and biological essential oils (plant-based), it helps achieve effective results in the fight against many bacterial diseases. It quickly eliminates copper deficiency in plants. It provides positive results in combating diseases such as Blackleg (Bacterial) in potatoes, Black Spot (Fungal) in apples, Olive Branch Blight-Cancer (Bacterial), *Clavibacter michiganensis* (Bacterial) in tomatoes, *Cercospora* spot disease (Fungal) in beets, *Septoria* Leaf Spot (Fungal) in wheat, and Grape Powdery Mildew (Fungal). Post-harvest applications are very important in fruit and citrus orchards. The special wound-sealing biostimulants it contains protect the plant from possible future pathogenic organisms.

Sandy and Light Soils (General):

Plants: Plants grown primarily in sandy soils (potatoes, some vegetables, corn).

Why: Sandy soils easily leach nutrients (including copper), increasing the risk of copper deficiency.

All Regions (General Plant Health and Yield Increase):

Plants: All plants, particularly those targeting photosynthetic efficiency and disease resistance.

Why: Copper is essential for the plant's overall metabolic health and energy production. This product supports optimal plant development and yield potential by preventing latent copper deficiencies.

Application Method and Timing: Cuatro is generally applied during active plant growth, during peak photosynthesis, or when signs of copper deficiency are evident. Foliar application ensures rapid copper uptake by the plant and is effective in alleviating deficiency symptoms. Soil application is also possible. Application dosages and timing should be determined based on plant species, growth stage, soil analysis results, and observed deficiency symptoms.

Indication: Supporting Seed Production and Germination Quality Copper (Cu) is a critical micronutrient for reproductive development, pollen production, and viability in plants. It has a direct impact on seed formation and seed fertility. Deficiency can lead to flowering problems, pollen sterility, and consequently poor seed or fruit set.

Indication: Used to achieve higher seed/fruit set ratios and fuller, more viable seeds, particularly in field crops (wheat, barley, corn, sunflower, cotton) and fruit and vegetables used for seed production. This role of copper directly affects the quality of the final product and seed productivity for the following planting season. This provides a critical benefit in Türkiye's large areas of grain and industrial crop production (Central Anatolia, Southeastern Anatolia, Marmara).

Iron

supplement



Guaranteed Content	: WW
Water-Soluble Cobalt (Co)	: % 0,02
Water-Soluble Iron (Fe)	: % 5
Water-Soluble Manganese	: % 1
Water-Soluble Molybdenum (Mo)	: % 0,02
Water-Soluble Zinc (Zn)	: % 2

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
All Greenhouse Vegetables / Tomatoes, Peppers, Zucchini, Eggplant, Cucumbers	0.5-1 liter / 625-1250 g/da	150-200ml / 188-250g per 100 liters of water	After transplanting the seedlings During the first flowering period After the first fruit fall After transplanting the seedlings
All Open Field Vegetables / Tomatoes, Peppers, Zucchini, Eggplant, Cucumber	0.5-1 liter / 625-1250 g/da	150-200ml / 188-250g per 100 liters of water	After transplanting the seedlings During the first flowering period After the first fruit fall After transplanting the seedlings
All Winter Vegetables / Lettuce, Lettuce, Leek, Spinach, Iceberg Lettuce, Cabbage	0.5-1 liter / 625-1250 g/da	100-150ml / 125-188g per 100 liters of water	The first application is made when the plants have 3-4 leaves, and the second application is made 15 days later.
Cut Flower / Strawberry	0.5-1 liter / 625-1250 g/da	100-150ml / 125-188g per 100 liters of water	Three applications are made during and after the leafing period.
Melon, Watermelon and Pumpkin	0.5-1 liter / 625-1250 g/da	100-150ml / 125-188g per 100 liters of water	Before and after flowering, three applications are made, 15 days apart.
All Tuberos Plants / Onion, Garlic, Carrot, Radish, Sugar Beet	0.5-1 liter / 625-1250 g/da	150-200ml / 188-250g per 100 liters of water	Before and after flowering, three applications are made, 15 days apart.
in the vineyards	0.5-1 liter / 625-1250 g/da	150-200ml / 188-250g per 100 liters of water	Two applications are made before flowering and during the grape harvest period.
Bananas and Citrus Fruits	0.5-1 liter / 625-1250 g/da	150-200ml / 188-250g per 100 liters of water	Before and after flowering 2-3 applications 15 days apart
All Stone and Pome Fruit Trees / Apple, Pear, Apricot, Peach, Plum, Cherry, Pomegranate, Hazelnut, Olive, Pistachio, Almond	0.5-1 liter / 625-1250 g/da	150-200ml / 188-250g per 100 liters of water	2-3 applications are made 3 weeks after flowering.
All Legumes / Chickpeas, Lentils, Beans, Soybeans, Peanuts	0.5-1 liter / 625-1250 g/da	150-200ml / 188-250g per 100 liters of water	After the second hoeing, 2-3 applications are made at 15-day intervals.
All Industrial Crops Cotton, Corn, Tea, Sunflower, Tobacco	0.5-1 liter / 625-1250 g/da	150-200ml / 188-250g per 100 liters of water	After hoeing, 2-3 applications are made at 15-day intervals.
All Field Crops Wheat, Barley, Rice, Oats	0.5-1 liter / 625-1250 g/da	150-200ml / 188-250g per 100 liters of water	With herbicide and during the tillering period
Green Field and Forage Crops Clover, Sainfoin, Vetch	0.5-1 liter / 625-1250 g/da	150-200ml / 188-250g per 100 liters of water	Ten days after each mowing



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Transfer



Transfer, is a special trace element source in organic hybrid form, containing high levels of iron and zinc, as well as important microelements such as manganese, cobalt and molybdenum.

Indications: Intensive Micronutrient Supplement (Especially Iron and Zinc) This liquid fertilizer is formulated to address micronutrient deficiencies in plants, address chlorosis (yellowing) problems, increase photosynthetic efficiency, and support overall plant health. It is particularly effective in soils where iron and zinc deficiencies are common. This fertilizer is a highly specialized trace element source resistant to high pH and EC (Salinity Index) values. Its special chelation technology allows for maximum uptake from the soil and leaves. R&D studies have shown that this fertilizer remains stable even at very high soil pHs and even chelates other metals (Potassium, Magnesium, Calcium) that are insoluble in the soil, making them available to the plant. It contributes to excellent green growth in the plant. Because the trace elements remain in a chelated form in the soil, they have a slow-release effect, allowing the fertilizer to remain stable in the soil for almost three months.

Iron (Fe) (5%):

Importance: An essential element for chlorophyll synthesis; its deficiency results in severe yellowing (chlorosis) of leaves. It is present in the structure of many enzymes involved in basic metabolic processes such as photosynthesis and respiration.

Indication: Used in plants where iron uptake is impaired, particularly in high pH (alkaline) and calcareous soils (most of the Central Anatolia, Southeastern Anatolia, Mediterranean, and Aegean regions of Türkiye), and where iron-induced chlorosis is common. It restores the plant's dark green color and increases photosynthetic capacity.

Zinc (Zn) (2%):

Importance: Necessary for the synthesis of auxin, the growth-regulating hormone in plants. It plays a key role in protein and carbohydrate metabolism, enzyme activation, and cold tolerance. Its deficiency results in stunted growth, small, and deformed leaves.

Indication: An essential microelement for healthy plant growth and development. It is used specifically in cases of growth retardation and leaf problems caused by zinc deficiency, or to prevent these problems. Zinc deficiency is a common problem in Turkish soils.

Manganese (Mn) (1%):

Importance: It is an activator of many enzymes involved in photosynthesis (especially water splitting and oxygen production), respiration, and nitrogen metabolism. **Indication:** Used to support plant energy production and general metabolism. Manganese uptake can also be difficult, especially in calcareous and high-pH soils.

Cobalt (Co) (0.02%):

Importance: It is a component of the nitrogenase enzyme, which is essential for nitrogen fixation (fixing nitrogen from the air), especially in legumes. It can increase plant resistance to stress.

Indication: It helps meet the plant's nitrogen needs by supporting nitrogen fixation in legume plants (chickpeas, lentils, beans, peanuts).

Molybdenum (Mo) (0.02%):

Importance: Plays a critical role in nitrogen metabolism, particularly in making nitrate available to the plant (nitrate reductase enzyme). It supports nitrogen fixation in legumes.

Indication: Used to increase the plant's nitrogen use efficiency and prevent nitrogen deficiency symptoms. Molybdenum deficiency can occur, especially in acidic soils, but this product can be beneficial in soils with a wide pH range.

Synergistic Effect: The combination of these elements ensures the plant receives comprehensive micronutrient support, preventing problems that may arise from imbalances between elements, as well as problems caused by a single element deficiency.

Indications by Region and Plant Type in Turkey:

This product can be used in all regions of Türkiye, especially in soils where micronutrient deficiencies are common and in plants sensitive to these deficiencies.

All Regions (General Micronutrient Support and Stress Tolerance):

Plants: All plants, especially those requiring general micronutrient support throughout the growing season; plants under stress (drought, heat, cold).

Why: This product improves the plant's overall metabolic health, increases photosynthetic efficiency, and strengthens its resistance to environmental stresses. It helps the plant reach its maximum potential by preventing hidden micronutrient deficiencies.

Application Method and Timing:

This fertilizer is generally applied during the plant's active growth stages, the beginning of vegetative development, and the fruit formation stages. It can be used to provide rapid relief when micronutrient deficiency symptoms are observed. Foliar application ensures rapid plant uptake of micronutrients and is very effective in alleviating deficiency symptoms. Soil application via drip irrigation is also possible.

Indication: Supporting the Antioxidant Defense System: Micronutrients such as Iron (Fe), Manganese (Mn), Copper (Cu), and Zinc (Zn) are important components of plant antioxidant defense systems (e.g., superoxide dismutase, catalase, and peroxidase enzymes). These systems play a critical role in protecting plants against free radical damage (oxidative stress) induced by environmental factors such as drought, excessive light, temperature fluctuations, salinity, or heavy metal stress.

Indication: Used to enhance plant cellular protection and stress tolerance, particularly in regions frequently experiencing extreme climatic events (severe heat waves, sudden frosts, prolonged drought) (e.g., Central Anatolia, Southeastern Anatolia, Mediterranean) or in areas at risk of heavy metal pollution. This helps minimize yield losses by allowing the plant to better adapt to adverse conditions. It directly supports the plant's overall vitality and health.

Liquid Sulfur pH Reducer



SOIL CONDITIONER



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Delta-S



Delta-S is specifically positioned as a liquid sulfur-based pH reducer and soil conditioner.

Unlike other fertilizers, it focuses on improving soil conditions rather than directly providing nutrients.

Delta-S Indications:

Soil pH Regulator and Structure Improver: This liquid sulfur product is used to facilitate plant nutrient uptake, improve soil structure, and eliminate conditions that negatively impact plant growth, particularly in high pH (alkaline) and calcareous soils.

pH-Lowering Effect (Liquid Sulfur):

Importance: A significant portion of Turkey's soil, particularly in the Central Anatolia, Southeastern Anatolia, and Mediterranean regions, has a high pH (alkaline) and high lime content.

High pH causes many macro and micronutrients, such as iron (Fe), zinc (Zn), manganese (Mn), copper (Cu), and even phosphorus (P), to bind in the soil, making them unavailable for plant uptake.

Liquid sulfur is converted into sulfuric acid by microorganisms in the soil, gradually and controlledly lowering soil pH.

Indication: Used to eliminate and prevent nutrient deficiencies (especially chlorosis, or yellowing of leaves) caused by high pH. It maximizes the effectiveness of other applied fertilizers by increasing the efficiency with which plants uptake nutrients from the soil.

It is particularly effective in vineyards, fruit trees, vegetables, and some field crops where iron chlorosis is common.

Soil Conditioning Effect (Liquid Sulfur):

Importance: Sulfur improves soil structure by promoting particle aggregation (clustering). This increases soil aeration, water infiltration, and root development.

It can also help reduce soil salinity and balance the sodium accumulation seen in some alkaline soils.

Indication: Used to improve aeration and workability in compacted, heavy clay soils. In saline or sodium-rich soils (e.g., some irrigated agricultural areas such as the Konya Plain), it helps reduce salinity stress and promote plant growth. By improving soil drainage, it can reduce the risk of root diseases.

Sulfur Nutrition:

Importance: Sulfur, along with nitrogen, is an essential macronutrient required for plant protein and enzyme synthesis. It directly impacts the plant's green color, photosynthesis, and yield.

Indication: It meets the plant's sulfur needs, especially in sulfur-deficient soils or in plants requiring sulfur (e.g., rapeseed, cabbage, bulbs, sunflower, corn).

Indications by Region and Plant in Turkey:

This product is particularly important in various regions of Türkiye, especially in soils with pH issues or poor structure.

All Regions (Uneven or Compacted Soils):

Plants: All plants and agricultural lands.

Reason: Creates a more suitable environment for root development by increasing soil aeration and water permeability.

Application Method and Timing:

This product is generally applied to the soil during soil preparation or at the beginning of active growth periods. It can be applied via drip irrigation or spraying.

Since the soil pH-lowering effect takes time, regular and periodic applications may be necessary.

Application dosage and frequency should be adjusted based on the existing soil pH, the lime content, the plant species, and the target pH level.

Liquid Sulfur pH Reducer



SOIL CONDITIONER



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Delta-Fx



Delta-Fx

Fertilizer Description and Ingredients: Formulated with organic acids, highly plant-available fatty acids, sulfur in the SO₃ format, and nitrogen, Delta-Fx is an excellent pH regulator and soil conditioner with a pH below 1.
Fertilizer

Function: Thanks to its low pH, it can be used as a pH regulator.

Thanks to its high carbon and organic matter content, it helps increase the soil's water and nitrogen retention capacity. Thanks to its fatty acids, it helps repel insects and pests from plants.

It allows plants to easily absorb macro and microelements that cannot be absorbed from the soil due to high pH.

It helps increase microbial activity in the soil.

Its acidic structure prevents clogging of irrigation systems and extends their lifespan. When used with other fertilizers, it increases their effectiveness.

It helps eliminate salinity in the soil and prevents the formation of crust. Its sulfur and nitrogen content contributes to plant nutrition.

Usage Period: It can be used easily whenever the plant needs it. It is especially recommended to apply it in conjunction with other plant nutrients.

Mixability and Application Method: It mixes easily with all fertilizers, including calcium fertilizers.



Transmission bundles of opens



**LIQUID SULFUR
pH REDUCER
SOIL CONDITIONER**



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Delta-Force



Delta Force Description and Ingredients: A superb soil conditioner formulated with organic acid, essential oil, sulfur in SO₃ format, and organic acid and phosphorus.

Indications: Used as a supplementary product to combat harmful bacterial and fungal pathogens in soil.

It buffers soil pH downward for approximately 3 days.

Delta Force Function: Thanks to its low pH value, it can be used as a pH regulator. Its high carbon and organic matter content helps increase water retention in the soil. Its fatty acids help repel insects and pests from plants.

This allows plants to easily absorb macro and microelements that cannot be absorbed from the soil due to high pH. It helps increase microbial activity in the soil. Its acidic structure prevents clogging of irrigation systems and extends their lifespan. When used with other fertilizers, it enhances the effectiveness of the fertilizer.

It helps eliminate salinity in the soil and prevents the formation of crust. Its sulfur and nitrogen content contributes to plant nutrition.

It is used to improve aeration and workability in compacted, heavy clay soils. In saline or sodium-rich soils (e.g., some irrigated agricultural areas like the Konya Plain), it helps reduce salinity stress and promote plant growth. It can reduce the risk of root diseases by improving soil drainage.

Application Period: Suitable for use during any plant-specific needs. It is particularly recommended to use it in conjunction with other plant nutrients.

Mixability and Application Method: Suitable for soil and foliar applications.



Protector Shield



Guaranteed Content	: WW
Organic Acids	: % 80
Other Ingredients	: % 20



Insfire



Insfire, a Bioinsecticide Powered by Natural Active Ingredients

Strong, Nature-Friendly Protection!

We offer an effective, nature-inspired solution for combating pests in your agricultural fields! Our product protects your plants and ensures the safety of your crops with specially selected natural active ingredients.

Effective Pests

Ants: Protects your plants by controlling ant populations and prevents harmful ant infestations.

Cockroaches: Effectively controls cockroaches, which are common in greenhouses and open fields.

Fleas: Provides reliable protection against flea species that can be harmful in agricultural fields.

Ticks: Effective against tick species that can harm your plants and provides a safe environment.

Mosquitoes: Provides natural protection against mosquito problems in open-field agriculture.

Flies: Repels flies that can damage fruit and vegetable fields.

Mites: Helps reduce mite populations that cause yield losses in plants.

Termites: Provides effective protection against termites that may spread especially in woody plants.

Product Advantages:

Fortified with Natural Active Ingredients: Provides a natural solution against insects that threaten the health of your plants.

Environmentally Friendly: Suitable for sustainable agricultural practices and friendly to plants, soil, and water resources.

Wide Range of Use: Suitable for both greenhouse and open-field farming, it can be easily used in various agricultural areas.

Safe and Effective Protection: Provides strong protection against pests and increases crop yields during agricultural production.

Mechanism of Action

This insecticide formulated with natural active ingredients is an effective insecticide and repellent against a variety of pests. It affects the nervous system of insects, causing paralysis or death.

Application Dosage

Directions for Use: 50-150 cc of product should be mixed with 100 L of water and applied to 1 decare.

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Protector Shield



Guaranteed Content	: WW
Organic Acids	: % 80
Other Ingredients	: % 20



Insfire-X



Insfire X Insecticide Powered by Natural Active Ingredients

Strong, Eco-Friendly Protection!

We offer an effective, nature-inspired solution for combating pests in your agricultural fields! Our product protects your plants and ensures the safety of your crops with specially selected natural active ingredients.

Effective Pests:

Ants: Protects your plants by controlling ant populations and prevents harmful ant infestations.

Cockroaches: Effectively controls cockroaches, which are common in greenhouses and open fields.

Fleas: Provides reliable protection against flea species that can harm agricultural fields.

Ticks: Effective against tick species that can harm your plants and provides a safe environment.

Mosquitoes: Provides natural protection against mosquito problems in open-field agriculture.

Flies: Repels flies that can damage fruit and vegetable fields.

Mites: Helps reduce mite populations that cause yield losses in plants.

Termites: Provides effective protection against termites that may spread especially in woody plants.

Product Advantages:

Enhanced with Natural Active Ingredients:

Provides a natural solution against insects that threaten the health of your plants.

Environmentally Friendly:

Compatible with sustainable agricultural practices and friendly to plants, soil, and water resources.

Wide Range of Use:

Suitable for both greenhouse and open-field farming, it can be easily used in various agricultural areas.

Safe and Effective Protection:

Provides strong protection against pests and increases crop yields during agricultural production.

Mechanism of Action: Formulated with these natural active ingredients, this insecticide is an effective insecticide and repellent against a variety of pests.

It affects the nervous system of insects, causing paralysis or death.

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Nano Carrier



Guaranteed Content	: WW
Organic Acids	: % 85
Other Ingredients	: % 15

HERB	DOSAGE DOSAGES		TIME FOR USE
	Nutrition from the Soil	Foliar Feeding	
Vegetables	50 cc/da	30 - 40 cc/100L water	10 days after planting and 20 days until harvest
Fruit Trees	50 cc/da	30 - 40 cc/100L water	It starts before flowering and continues until harvest at 15 day intervals.
Field Crops	50 cc/da	30 - 40 cc/100L water	After the plants have 3-5 leaves, apply at 20-day intervals until harvest.
Green Areas and Cut Flower Production	50 cc/da	30 - 40 cc/100L water	Every 15 days during the growing season
Bond	50 cc/da	30 - 40 cc/100L water	Every 15 days during the growing season
Banana	50 cc/da	30 - 40 cc/100L water	With the first fertilizer at 10 day intervals





Icon is a unique, next-generation formulation composed of specialized organic molecules, various organic polymers, and beta-hydroxy organic acids.

Features:

Thanks to its special formulation, it:

Accelerates the uptake of plant nutrients and ensures their efficient use.

Serves as a catalyst in plant biochemical reactions.

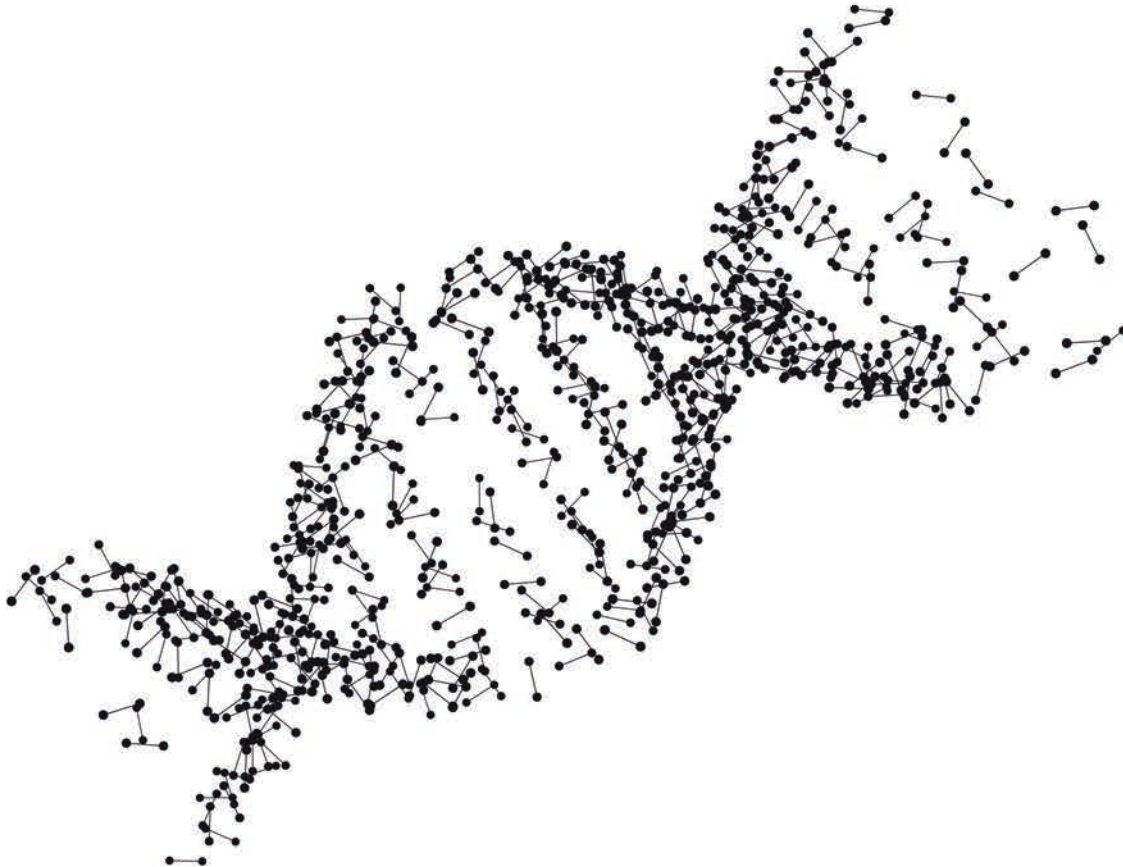
Promotes the synthesis of auxin and cytokinin.

Plays an important role in root, stem, and fruit formation processes.

A photosynthesis activator. Protects plants against biotic and abiotic stress.

When used in conjunction with pesticides, it increases the effectiveness of the drugs and reduces their dosage.

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**of your balconies
supporter**



Bitki Besini



Plant Nutrition contains 25% Water-Soluble Potassium Oxide (K₂O). This means it's a potassium-rich fertilizer, a vital macronutrient for plants.

Now, let's explain the indications for this product—when and why it should be used—specifically for the regions and plants in Türkiye:

The Importance of Potassium for Plants

Potassium plays a role in many critical physiological processes in plants:

Water Management and Drought Resistance: It plays a key role in the opening and closing of stomata (pores), which regulate plant water uptake and transpiration. This increases the plant's resistance to water stress.

Disease and Pest Resistance: It strengthens cell walls, making plants more resistant to diseases and pests.

Fruit Quality and Yield: It directly affects fruit formation, growth, fullness, color, taste, and shelf life. It increases sugar, starch, and protein synthesis.

Root Development: It helps form strong and healthy root systems.

Photosynthesis and Energy Production: It supports the activation of enzymes during the photosynthesis process, enabling the plant to produce energy more efficiently.

Cold and Frost Resistance: It can increase plants' resistance to cold weather and frost.

Indications by Region and Plant in Turkey:

This 25% K₂O liquid fertilizer is particularly effective when aiming for fruit set, increased quality, and stress tolerance. Its use is recommended if soil analyses indicate potassium deficiency or if the plant is in a growing season where potassium needs are high.

Here's information on which regions and plants it will work best for in Turkey:

Application Method and Timing

Potassium is generally the nutrient most needed by plants after flowering and during fruit development.

This liquid fertilizer can be applied via foliar application or through soil with drip irrigation.

Application dosages and timing should be determined based on the plant species, growth stage, and soil analysis results.

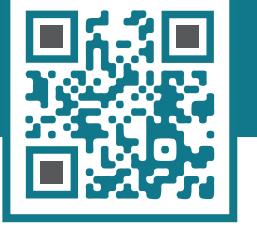
The descriptions we present in this catalogue are adapted to the geographical conditions of Türkiye and may vary depending on the type of plant to be grown in your country, soil structure, climate and weather conditions.

of our flowers

Guardian Friendly



Yaprak Temizleyici



It is a new-generation, unique formulation composed of special organic molecules, various organic polymers, and beta-hydroxy organic acids.

Features:

Thanks to its special formulation, it:

Accelerates the uptake of plant nutrients and ensures their efficient use.

It acts as a catalyst in biochemical reactions in plants.

It promotes the synthesis of auxin and cytokinin.

It plays an important role in root, stem, and fruit formation processes.

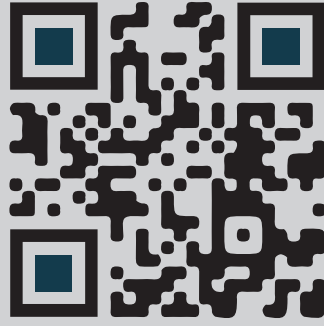
It is a photosynthesis activator.

It protects plants against biotic and abiotic stress.

When used in conjunction with pesticides, it increases the effectiveness of the drugs and reduces their dosage.

The descriptions we present in this catalogue are adapted to the geographical conditions of Türkiye and may vary depending on the type of plant to be grown in your country, soil structure, climate and weather conditions.





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The Life Energy of Plants





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