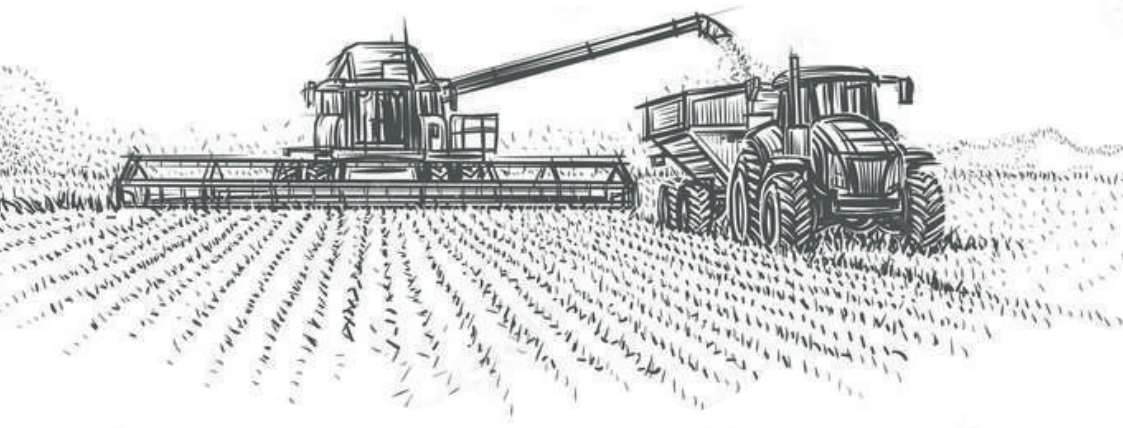




ATLAS TECH

Atlas Touran Caspian Tech



Atlas Touran Caspian Tech Company

Atlas Touran Caspian Tech Company was established in 2023 with the aim of producing and supplying agricultural inputs at the highest quality level, as well as providing production, technical, and consulting services in Iran. The company takes pride in being the first in the Middle East to design and implement a production line with simultaneous formulation capability. Our goal is to manufacture a diverse range of advanced agricultural products, which we hope will be widely welcomed by farmers, plant protection clinics, and companies active in the supply and distribution of agricultural inputs across the country. To achieve this goal, we have leveraged the latest and most advanced production lines, cutting-edge formulations, high-quality raw materials, and the expertise of domestic and international specialists, experts, and consultants in this field.

Atlas Touran Caspian Tech Company is committed to developing the agricultural sector and supplying strategic products while preserving environmental values. Our mission is to improve soil quality and provide organic matter for the agriculture of our beloved country. Relying on the undeniable role of research and technical support before commercializing agricultural inputs, we conduct thorough evaluations of all selected products in farms, orchards, and research greenhouses across different regions of Iran. This ensures that we deliver the best products with the highest efficiency, providing farmers with confidence and reliability. One of our most important commitments to farmers is to offer high-quality products with global standards at prices suited to the Iranian market. This key approach also serves as economic support for the agricultural sector.





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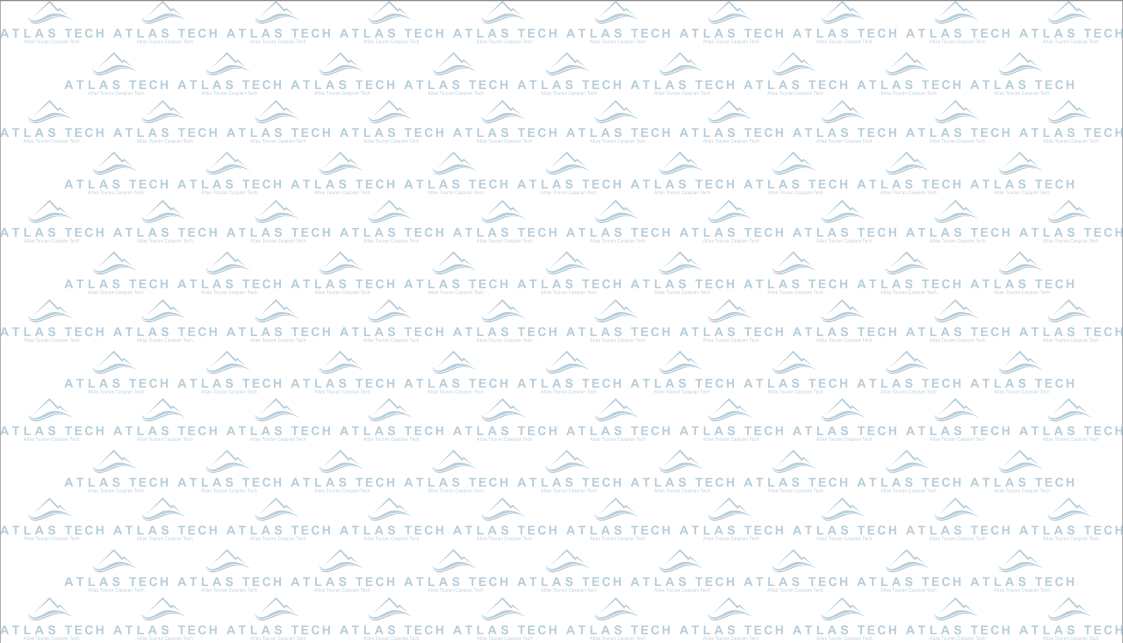
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Macro Elements Fertilizers



Unique Up

NPk Fertilizers

The plant needs its nutrient units for healthy and optimal growth. The most important nutrients that Plants cannot survive without them, known as macronutrients: nitrogen (N), phosphorus (P) and potassium (K). **Unique UP**, fertilizers different formulations according to nutritional requirements of plants different stages of life that have become the main answer to the ever-growing demand for agricultural products. Each of the macroelements (main nutrients) is essential in plant nutrition and plays an essential role in the growth, expansion and reproduction of the plant. Along with essential macro-elements: nitrogen, phosphorus and potassium, these fertilizers are enriched with various micro-elements and additives. This type of fertilizer represents a balanced fertilizer, with equal amounts of Nitrogen, Phosphorus, and Potassium and To ensure maximum absorption and efficiency rate of nutrients, most microelements are chelated with EDTA. **Unique UP** fertilizers are free of chloride, sodium and other detrimental elements for plants, also are entirely water-soluble fertilizers.

Unique UP20-20-20+TE

Unique UP10-52-10+TE

Unique UP10-05-40+TE

Unique UP Fertilizers Guaranteed Content % w/w

Unique UPNPK Fertilizers	Total Nitrogen(N)	NH4-N	NO3-N	NH2-N	P2O5	K2O	B	Cu	Fe	Mn	Zn
Unique UP20-20-20+TE	20	3.5	5.3	11.3	20	20	0.01	0.002	0.02	0.01	0.002
Unique UP10-52-10+TE	10	10	-	-	52	10	0.01	0.02	0.02	0.01	0.002
Unique UP10-05-40+TE	10	3	7	-	5	40	0.01	0.002	0.02	0.01	0.002

Application Methods and Dosages:

Soil Application by Irrigation Water: 2-5 kg / ha



Unique K

General (Classic) Fertilizers

Potassium is an element that has a great impact on plant growth and product quality. This element helps plants to be more resistant to diseases, drought and high or low temperatures. **UniqueK**, is a liquid fertilizer that contains high percentage of chelated potassium and nitrogen. This product is highly effective for plants both in the form of soil consumption and foliage consumption. **Promote K** is clear, chloride- and hydroxide-free potassium fertilizers. Among the symptoms of potassium deficiency, we can mention such things as the yellowing of the edge of the leaves and then the browning of the whole leaf, confusion in the placement and orientation of the leaves and stems, softening of the roots and loss of the normal shape and appearance of the plant. **UniqueK** can be used in any cropping situation where potassium is needed. Its unique formula provides increased crop utilization, allowing lower total product application volume to produce the same results as other conventional potassium fertility products when applied at typical rates. Potassium is necessary for Increasing the germination rate of plants and trees and the overall growth rate, Increasing the volume of products such as tomatoes, potatoes and eggplants, Stimulate flowering as much as possible, Plant resistance against freezing, leaf burn, thickening of stems and Plant resistance against various fungal diseases and pests and activates enzymatic reactions, regulates opening of leaf stomata and build cell wall. The nitrogen within **Promote K** facilitates uptake and improves potassium absorption by the plant. Two macronutrients (primary nutrients) in this fertilizer are essential for plant nutrition and growth. As healthy growth requires large amounts of nitrogen and potassium. These elements will play their role well in the form of a **UniqueK** to achieve the above mentioned Feature.

Guaranteed Content	% w/w	% w/v
Total Nitrogen	3	4.5
Urea Nitrogen(NH ₂ -N)	3	4.5
Water Soluble Potassium Oxide(K ₂ O)	34	51

Application Methods and Dosages:

- **Vegetables:**

4 Lt/ha (Drip Irrigation Application)

200-300cc/ha/100Lt Water (Foliar Application)

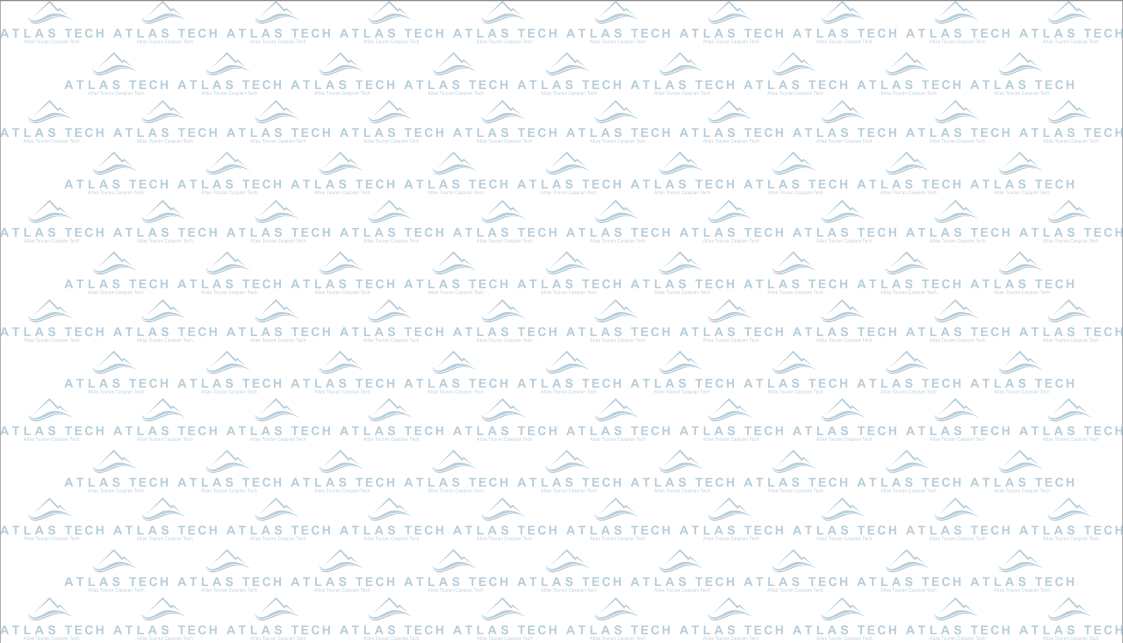
- **Fruit Trees and Crops:**

3-4 Lt/ha (Flooding & Drip Irrigation Application)

250-350cc/ha/100Lt Water (Foliar Application)







Micro Elements Fertilizers



Unique Mix

Micro Elements

The lack of micronutrients is one of the causes of plant disorders, which seriously threatens the health and proper growth of plants. This deficiency occurs when one or more low-use elements are absent in the soil or their amount is very low. Plants' need for micronutrients can be met by using fine fertilizer or micronutrient fertilizer.

Unique Mix, is a stable, water soluble and non-dusting solid mixture of micro-elements; copper, iron, manganese, zinc, boron and molybdenum, which are present in LPCA chelated form. Atlas tech micronutrient fertilizers are manufactured with high quality control and according to the highest international standards. These microelements are essential for healthy plant growth and development and play a role in the functioning of many important plant processes. By using **Unique Mix** product in recommended doses, plants are provided with the elements needed for enzyme activity, nutrient absorption and metabolic processes. **Unique Mix** is used as a supplement to main fertilizers such as fertilizers containing nitrogen, phosphorus and potassium. The use of this fertilizer must be done carefully and in the right amount so as not to harm the plants. The type and amount of micronutrient fertilizer used depends on the type of plant, the soil being cultivated, and the mineral needs of the soil and plant. Using **Unique Mix** in agriculture, gardening, and home gardening activities can improve plant performance, better growth, prevent diseases, and increase plant resistance to adverse conditions.

Guaranteed Content	% w/w
Water Soluble Copper(Cu)	1
Water Soluble Boron(B)	1.5
Water Soluble Zinc(Zn)	8
Water Soluble Iron(Fe)	6
Water Soluble Manganese(Mn)	5
Water Soluble Molybdenum(Mo)	0.05

Application Methods and Dosages:

- Soil Application 100-150gr/1000 Lt Water/ha
- Foliar Application 40-100gr/10 Lt Water/ha



Unique Iron

Micro Elements

Micronutrients are generally required in very small amounts by plants. Iron is an essential micronutrient for plants that plays an effective role in plants and participates in vital processes such as photosynthesis. If the plants don't get enough of this substance, they get sick. Therefore, related fertilizers can be used to deliver this nutrient to plants.

As a micronutrient, iron plays important roles in various plant processes such as:

- Respiration
- Photosynthesis
- DNA synthesis.

The imbalance of this element in the soil causes chlorosis in the plant. Chlorosis on younger leaves starts as yellowing of the leaves between the veins and eventually causes the death of the plant in more severe stages.

Unique Iron is a micro element which is completely dissolved in water and contains 6% iron in its structure and is entirely chelated with EDDHA. It prevents iron chlorosis in all kinds of plants and fruit trees.

Guaranteed Content	% w/w
Water Soluble Iron(Fe)	6
EDDHA Chelated Iron(Fe)	6
Workable PH	4-10

Application Methods and Dosages:

• Vegetables:

Soil Application 250gr/1000 Lt Water/ha

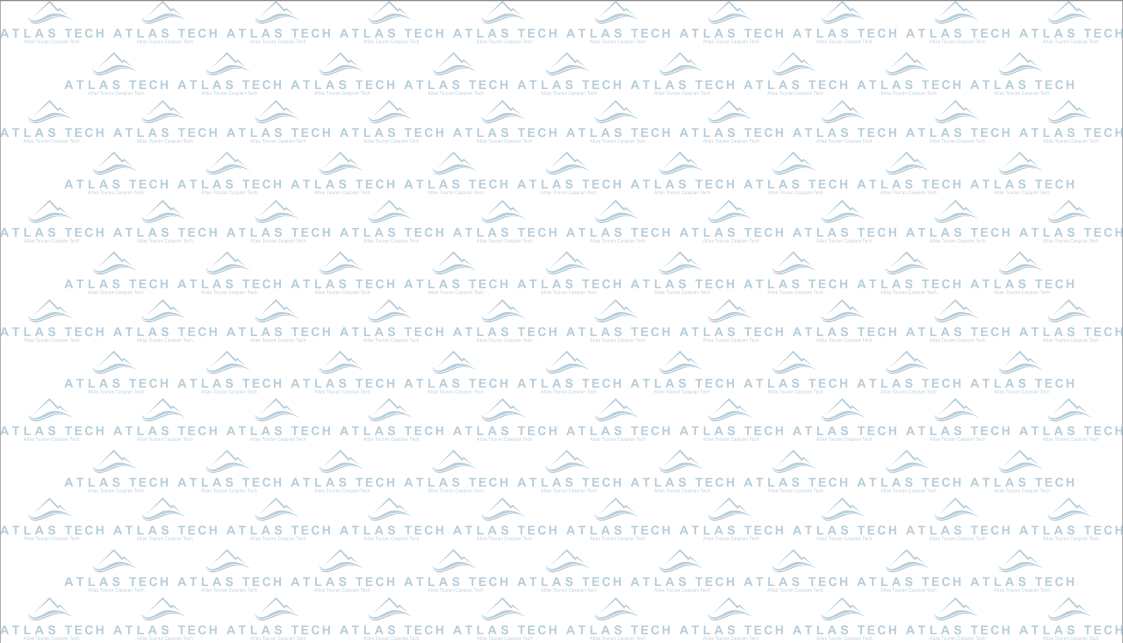
• Fruit Trees and Crops:

Soil Application 250gr/1000 Lt Water/ha

Foliar Application 50-70 gr/100 Lt Water/ha







New Generation Fertilizers



Phospho Link

Liquid Fertilizers

PhosphoLink, is a liquid fertilizer based on phosphorus with low pH and high efficiency. As We know Plants need this element for photosynthesis, energy storage, transfer and respiration among various other functions. As a result, phosphorus deficiency of the plant will not be able to carry out the production cycle properly.

PhosphoLink, not only supply the need of phosphorus but also decreases soil pH level and increase crop yields by increasing the availability of key nutrients that are necessary for photosynthesis and other metabolic processes also helps the absorption of other nutrients in calcareous soils rich in nutrients. It removes blockage of drips and balances soil salinity that is one of the important features of this product.

Guaranteed Content	% w/w	%w/v
Total Nitrogen(N)	6	8
Nitrate Nitrogen(NO ₃ -N)	3	4
Ammonium Nitrogen(NH ₄ -N)	3	4
Water Soluble Phosphorus Pentoxide(P ₂ O ₅)	30	39

Application Methods and Dosages:

- Vegetables:

1-3 Lt/100Lt Water(Soil Application)

- Fruit Trees and Crops:

1-2 Lt/100Lt Water(Soil Application)



Unique Ts

Liquid Fertilizers

Sulfur increases the absorption and solubility of macro and micro nutrients and prevents the deficiency of elements such as iron, zinc and boron in the soil. Other benefits of sulfur for trees include increasing the greenness of plants, increasing resistance to pests and diseases, and reducing soil salinity. Sulfur has several roles in the plant as follows:

- It plays a role in the structure of amino acids and proteins
- It is essential in the formation of chlorophyll
- It plays a role in the synthesis of oil, especially oil products
- It is active in nitrogen metabolism.

Potassium, like other nutrients, (nitrogen and phosphorus) is one of the essential elements in the soil, which plays an essential and vital role in regulating plant growth. Unlike other commonly used elements, potassium is not found in the form of non-ionic compounds or organic complexes in the structure of plant cells. Potassium is mobile in plants in such a way that it is transferred from the lower leaves to the upper leaves. Among the roles of potassium in plants, we can mention photosynthesis, osmotic regulation, enzyme activity, maintaining plasma membrane potential, protein synthesis, maintaining anion-cation balance, and regulation of opening and closing of stomata. Also, this element plays a role in the movement of water, nutrients and carbohydrates in the plant tissue and is an important element in increasing plant resistance to stress.

Unique TS, It consists of potassium and sulphur complex enriched with potassium polysulphides. This product is very important and necessary for all plants, especially oil plants, with a high amount of potassium and sulfur elements. Among the advantages and benefits of potassium thiosulfate in plants, the following can be mentioned:

1. Adjusting the pH of alkaline soils. 2. Increasing the solubility of nutrients. 3. Increasing the storage life of fruits. 4. Increasing the resistance of plants against environmental stresses (drought, salinity and cold) & etc..

Guaranteed Content	% w/w	%w/v
Water Soluble Potassium Oxide(K ₂ O)	26	35.5
Thiosulfate(SO ₃)	48	63
Sulfur(S)	19	25.5

Application Methods and Dosages:

• Vegetables:

2-3L/ha(Drip Irrigation Application)

• Fruit Trees and Crops:

1-5L/ha(Drip Irrigation Application)

3-5L/ha(Flooding Irrigation Application)



Unique SOP-52

Potassium Sulfate Fertilizers

Potassium is one of the main elements required for plant growth. This element is vital for regulating osmotic pressure in plant cells, regulating intracellular pH, enzyme activity, regulating chemical compounds, and various biological processes in plants. The use of sulfur in agriculture has also proven to be an effective tool for increasing crop productivity and soil fertility. Sulfur plays an important role in plant metabolism, acting as a key component of enzymes and amino acids. In addition, sulfur can reduce pest infestations.

U.SOP-52 contains potassium and sulfur, and due to its unique properties, it has the lowest leaching rate. **U.SOP-52** is the best source of potassium, and due to its sulfur base, it can be easily used in saline soils. It increases the nutritional value of products by positively affecting the production of starch, sugar, and various vitamins. This product has the lowest salinity coefficient and leaching index compared to other potassium products. This fertilizer contains the important element sulfur, which is present in this product in the form of sulfate ions and is easily absorbed by the plant and is used to build important compounds such as amino acids and proteins and participates in photosynthetic reactions. **U.SOP-52** have a high solubility in water, the speed of which also depends on the quality of irrigation and the mixing method.

Guaranteed Content	% w/w
Water Soluble Potassium Oxide(K ₂ O)	52
Sulfate(SO ₄)	55
Sulfur(S)	19

Application Methods and Dosages:

- Vegetables:

2-3Lt/ha(Drip Irrigation Application)

- Fruit Trees and Crops:

1-5Lt/ha(Drip Irrigation Application)

3-5Lt/ha/(Flooding Irrigation Application)



Unique Sol

Bucket Fertilizers

Potassium nitrate is a dietary source of two basic nutrients for plants. KNO_3 is applied to the soil before the growing season or as a supplement during the growing season. To stimulate physiological processes or overcome nutrient deficiencies, sometimes a diluted solution of this fertilizer is sprayed on the foliage of plants.

Unique Sol, is a very effective fertilizer which can be applied either by soil or foliar. this fertilizer increases the quality and size of the products before harvesting time. Nitrogen is used in plants for the synthesis of amino acids and plant growth, and as a chlorophyll, it reduces growth and changes the color of plant leaves. Also gives excellent results in the production of vegetables, especially in tomatoes, preventing small fruits and quality deficiencies. In addition stimulates growth and ripening of fruits and vegetables and enriches their color. Both potassium and nitrogen are required by plants to support harvest quality, protein formation, disease resistance, and water use efficiency. Therefore, to support healthy plant growth, farmers often apply KNO_3 to the soil or through the irrigation system during the growing season and is a completely water-soluble fertilizer.

Guaranteed Content	% w/w	%w/v
Water Soluble Potassium Oxide(K_2O)	20	27
Total Nitrogen(N)	5	7
Nitrate Nitrogen(NO_3-N)	5	7

Application Methods and Dosages:

- **Vegetables:**

1.5-2Kg/ha(Drip Irrigation Application)

200-300cc/ha/100Lt Water(Foliar Application)

- **Fruit Trees and Crops:**

1.5-2Kg/ha(Drip Irrigation Application)

2-3Kg/ha/(Flooding Irrigation Application)



Rooster Plus

Liquid Fertilizers

Rooster Plus, is a liquid organic fertilizer produced through multi-step fermentation and high heat-treatment of poultry manure and addition of nitrogen. Poultry liquid manure is produced according to modern technology, therefore, it is free from weed seeds and pathogens, and by having a suitable analysis and suitable for different soils, it can have a positive effect on the physical and chemical properties of the soil to a large extent. Due to high content of organic matter, **Rooster Plus**, is useful for all plants, including gardens, greenhouses, vegetables, ornamental flowers; It also improves the structure and moisture-absorbing capacity of the soil, increases bio-activity and helps in the growth and development of leaves and roots. This fertilizer increases yield, and ensures a fertile balance of natural soil systems and the natural enrichment of the soil, thus preserving the permanent balance of the soil pH.

Guaranteed Content	% w/w	%w/v
Total Organic Matter	35	45.5
Organic Nitrogen(N)	4	5
Total Potassium Oxide(K ₂ O)	5	6.5
Magnesium(Mg)	1	1.5
PH	4-5	4-5

Application Methods and Dosages:

- **Vegetables:**

2.5Kg/ha(Drip Irrigation Application)

- **Fruit Trees and Crops:**

2.5-4Kg/ha(Drip Irrigation Application)

2.5-4Kg/ha(Flooding Irrigation Application)



Leaf Amin

Liquid Fertilizers

Amino acids are biological stimulants that have positive effects on plant growth and performance and significantly reduce damage caused by abiotic stresses.

Leaf Amin, is a particular nitrogen fertilizer that enriched by trace elements and variety of amino acids. The properties and benefits of using this fertilizer include ; Being a growth stimulator, Occurrence of tempes.ature stress such as frostbite, Helping the process of pollination and fertility of plants and prevents chlorosis, rosette virus and shortening of shoots in plants and improves quality and yield of vegetables and fruits . High quality nitrogen and amino acids content of **Leaf Amin** it plays a very effective role in regulating vegetative and reproductive growth as well as regulating plant hormones and synergistic absorption of elements in plants.Due to the presence of rare elements and rich amino acids,**LeafAmin** is suitable option for plants damaged by pesticides,In creasing resistance to environmental stresses(heat, coldandsaltiness),as well as strong growth stimulant with tremendous effects on increasing the growth of all plant organs.

Guaranteed Content	% w/w	%w/v
Total Organic Matter	30	39
Total Nitrogen(N)	12	15.5
Water Soluble Phosphorus Pentoxide(P2O5)	3	4
Water Soluble Potassium Oxide(K2O)	8	10.5
Water Soluble Zinc(Zn)	4	5
Water Soluble Boron(B)	1	1.5
Water Soluble Iron(Fe)	2	2.5
Sulfur(S)	4	5
Free Amino Acids(Zn)	14	18
PH	5	5

Application Methods and Dosages:

- **Vegetables:**

1-2Lt/ha(Drip Irrigation Application)

400cc/ha/100Lt Water(Foliar Application)

- **Fruit Trees and Crops:**

2Lt/ha(Drip Irrigation Application)

2-2.5Lt/ha(Flooding Irrigation Application)

200-300cc/ha/100Lt Water(Foliar Application)



Unique P-Zn

Liquid Micro Elements

Unique P-Zn, liquid fertilizer is a fertilizer contains Nitrogen, Phosphorus and Zinc which are suitable for better flowering and fruiting in crops and fruit trees and root development. Using phosphate and zinc together leads to a better synthesis of hormones in the plant and increases its performance. **Unique P-Z** is suitable for calcareous and alkaline soils, which prevents the immediate deposition of phosphorus in the soil. The solubility and permeability of its phosphates in the soil is higher compared to other liquid phosphorus fertilizers due to the fact that it is astringent and the use of a suitable surface lubricant, and it increases its absorption by the plant. Also, using this product, due to its special formulation, will control the Alternate bearing phenomenon of new growth in trees for then extyear and will be very effective.

Guaranteed Content	% w/w	%w/v
Total Nitrogen(N)	6	7.5
Ammonium Nitrogen(NH ₄ -N)	3	4
Nitrate Nitrogen(NO ₃ -N)	3	4
Water Soluble Phosphorus Pentoxide(P ₂ O ₅)	28	35
Water Soluble Zinc(Zn)	6.5	8

Application Methods and Dosages:

- **Vegetables:**

1-2Lt/ha(Drip Irrigation Application)

350cc/ha/100Lt Water(Foliar Application)

- **Fruit Trees and Crops:**

3Lt/ha(Drip Irrigation Application)

2.5-4Lt/ha(Flooding Irrigation Application)

150-300cc/ha/100Lt Water(Foliar Application)



Unique Cu

Liquid Micro Elements

Unique-Cu, is a fertilizer which provides copper needs of plants and contains copper. the Copper element has many agricultural uses. The copper fertilizer element has a role in the formation of chlorophyll and the phenomenon of photosynthesis. This substance plays a role in movement and vitamin A and helps in the metabolism of carbohydrates and nutrients. One of the properties of copper element and subsequently one of the properties of copper fertilizer in agriculture is that it plays an important role in the color of fruits. We should note that in environments with alkaline pH, copper is not absorbable by plants which includes alkaline soils and this point will be very important in the case of Iranian plateau soil, which mainly has alkaline pH. To compensate for the lack of copper in the soil of plants, it is necessary to use copper sulfate to provide the copper element needed by the plants.

Unique-Cu, a fertilizer product with an excellent source of copper sulfate that helps plants grow and development better by controlling plant roots. With the addition of copper compounds, we see the recovery of the roots. From the other use of copper sulfate in agriculture, we can mention its antifungal and antimicrobial properties. Fertilizing the roots of trees, plants, and bushes using copper sulfate solution will prevent microbial and fungal viruses that cause leaf spots, rusting, and wounding of the apple skin.

Guaranteed Content	% w/w	%w/v
Water Soluble Copper(Cu)	7	10

Application Methods and Dosages:

- **Vegetables:**

0.5-1 Lt/ha (Flooding & Drip Irrigation Application)

100-150cc/100Lt (Foliar Application)

- **Fruit Trees and Crops:**

0.5-1 Lt/ha (Flooding & Drip Irrigation Application)

100-150cc/100Lt (Foliar Application)



Unique N

Nitrogen Liquid Elements

Unique-N, is a liquid fertilizer with high concentration of different forms of nitrogen. Nitrogen is the first and main element required by plants, which is given to the soil by nitrogen fertilizer in case of shortage. It is appropriate for both foliar and soil applications. Nitrogen plays an important role in the creation and correct functioning of chlorophylls. Chlorophyll is the main component of sugars and carbon compounds and plays a role in the process of photosynthesis by absorbing water and carbon dioxide plants and with the help of solar energy.

Unique-N, helps plants to supports development and have strong structure of green parts and increases chlorophyll. One of the main structures that make up the ATP molecule is nitrogen, and if we don't have enough nitrogen, we won't have energy and the plant won't grow. Also Maintains balance of carbohydrates and protein in plant structure, decreases pH through soil applications and solves accumulated salt residuals around plant roots.

Guaranteed Content	% w/w	%w/v
Total Nitrogen(N)	22	26.5
Nitrate Nitrogen(NO ₃ -N)	6	7
Ammonium Nitrogen(NH ₄ -N)	6	7
Urea Nitrogen(NH ₂ -N)	10	12

Application Methods and Dosages:

- **Vegetables:**

1-3Lt/ha(Drip Irrigation Application)

150-200cc/100Lt Water(Foliar Application)

- **Fruit Trees and Crops:**

1-3Lt/ha(Flooding & Drip Irrigation Application)

200-250cc/100Lt Water(Foliar Application)



Trans Soil

New Generation Fertilizers

Chelating agents are organic molecules that can trap or encapsulate certain metal ions like Ca, Mg, Fe, Co, Zn and Mn and then release these metal ions slowly so that they become available for plants to take them up. **Trans Soil**, is not a fertilizer or plant nutrient, it is a perfect chelating agent. This forms a complex that is soluble in water, making the metal ion available for plant uptake. In soil, chelation can be important for the availability of micronutrients, such as iron, zinc, and manganese. Due to high pH level of soil, water soluble compounds generally transform to unsoluble and unabsorbable metal salts such as metal oxide. Due to high cation exchange capacity, **Trans Soil** makes metal ions more available for absorption by plants. As we know the strength of the chemical bond between the ligand and the metal ion depends on the type of ligand, the type of ion and the pH. **Trans Soil** accelerates roots development, protect metal ions from unwanted chemical reactions and improve their availability for plant roots and during these parameters by improving plant nutrition causes increases resistance of plants against to diseases, prevents hardening of the soil. Application of chelated micronutrients has proven to be a highly effective way to increase crop yields and their quality. And because of its advanced formulation, **Trans Soil** product performs this task very well. This product also solves the lime problem in irrigation systems due to its mechanism and special ingredients and removes blockages. And when mixed with other fertilizers in accordance with the international fertilizer mixing table, it increases the efficiency of fertilizers and thus improves the crop yield.

Guaranteed Content	% w/w	%w/v
Total Organic Matter	30	36
Total Nitrogen	1	1
Water Soluble Potassium Pentoxide(P ₂ O ₅)	3	3.5
PH	1-2	1-2

Application Methods and Dosages:

- To Increase Uptake of Plant Nutrients:

1Lt/ha(Drip Irrigation Application)

250cc/ha(Foliar Application)

- To Improvement of Irrigation Water and Open Dripping Tubes:

1Lt/ha(Drip Irrigation Application)



Nitro Cals

Liquid Micro Elements

Nitro Cals, In addition to being a strong supplement, it contains essential nutrients for the plant, it is also used to control and prevent plant diseases. This fertilizer can strengthen your plants and increase their yield. The presence of sufficient calcium helps plants and agricultural products to suffer less from diseases and physiological disorders. It increases the shelf life of agricultural products during storage and improves root growth conditions and increases crop productivity. Due to its high purity and the use of advanced technology, this fertilizer is quickly absorbed by plants and is effective in eliminating calcium and nitrogen deficiency in plants. By using this fertilizer, you will prevent early fall and spoilage of products and you will have marketable products. Also, you can use this fertilizer in the cultivation of tomatoes and peppers to prevent rotting of the ends of the blossoms. **Nitro Cals**, makes the plant stronger against diseases and insects by strengthening the cells that make up the plants. In addition, a strong cell wall reduces disease and spoilage of fruits and vegetables after harvest. **Nitro Cals** brings a suitable dose of nitrogen to the plant. Like calcium deficiency, nitrogen deficiency can also cause plant death and loss if not treated on time. This is why nitrogen is the main ingredient of most chemical fertilizers.

Guaranteed Content	% w/w	%w/v
Total Nitrogen(N)	10	15
Nitrate Nitrogen(NO ₃ -N)	9	13
Ammonium Nitrogen(NH ₄ -N)	1	2
Water Soluble Calcium Oxide(CaO)	15	24

Application Methods and Dosages:

- Vegetables:

2-5Lt/ha(Drip Irrigation Application)

250-300cc/ha/100Lt Water(Foliar Application)

- Fruit Trees and Crops:

1-5Lt/ha(Flooding & Drip Irrigation Application)

200-400cc/ha/100Lt Water(Foliar Application)



Unique CalsBor

Liquid Micro Elements

Calcium fertilizer is one of the chemical fertilizers available to provide a source of calcium in plants and agricultural products and plays an important role in plant growth and makes them less susceptible to disease and pests. Along with magnesium and sulfur, Calcium is one of the three secondary nutrients required by plants.

Unique CalsBor, By increasing plant resistance to diseases and environmental stresses, it plays a vital role in increasing agricultural productivity. This product generally improves the quality and quantity of agricultural products. This fertilizer can be used in two ways: foliar spraying and irrigation. In the foliar spraying method, the fertilizer is mixed with water and sprayed on the leaves. In the irrigation method, the fertilizer is added to the soil along with water, which allows it to reach the plant's roots faster. Calcium plays a vital role in the formation of new plant tissues and thus helps increase plant growth. Boron plays a key role in root function and low boron levels reduce the plant's ability to uptake water and nutrients from the soil, which often induces a calcium deficiency.

Unique CalsBor, It also increases the ability of plants to absorb light, which leads to improved photosynthesis and ultimately better plant growth. The calcium in this fertilizer increases the consistency and hardness of plant cells, which further strengthens plants.

Guaranteed Content	% w/w	%w/v
Water Soluble Calcium Oxide(CaO)	14	18
Water Soluble Boron(B)	0.24	0.30

Application Methods and Dosages:

- **Vegetables:**

2-5L/ha(Drip Irrigation Application)

200-300cc/ha/100Lt Water(Foliar Application)

- **Fruit Trees and Crops:**

2-5L/ha(Flooding & Drip Irrigation Application)

250-400cc/ha/100Lt Water(Foliar Application)



Unique Humik

Humic+ Fulvic Acids Fertilizers

Humic acids are big carbon-based molecules that are wonderful in soil environments for providing improved structure, better water retention, and “pathways” for nutrient exchange between the soil and plant roots. They’ve also been shown to improve cell wall permeability in both the leaves and root zones of plants. The addition of humic acid will exchange H^+ cations to cause lower soil pH. The soil cation exchange has a capability to greatly influence the content of clay and organic matter. The higher the content of clay and organic matter, the smaller the pH change. When added to the soil as a plant fertilizer, humic acid binds and chelates cations, unlocking the bio availability and aiding the plant’s uptake of nutrients.

whereas, Fulvic acid fertilizer restores humic substances in the soil, makes nutrients more available to plants, and helps to support strong growth, resilient crops, and healthier soil. Unlike other humic substances, fulvic acid is water soluble. This means it breaks down more easily and can also be applied more easily. The production of ATP can regulate the rate of photosynthesis. Potassium also helps regulate the opening and closing of the stomata, which regulates the exchange of water vapor, oxygen and carbon dioxide. If K is deficient or not supplied in adequate amounts, it stunts plant growth and reduces yield. **Unique-HumiK**, is a high-grade and high-content Leonardite fertilizer. also are widely used as soil amendments. When applied to soils, they improve overall fertility by enhancing nutrient availability, water retention, and soil structure. Their ability to stimulate microbial activity further accelerates the breakdown of organic matter, leading to faster nutrient cycling. **Unique-HumiK**, removes excess sodium from the soil to remove salt. It makes the existing nutrients from the soil into chelates and allows them to be taken easily by the plants. It acts as a natural Chelator (by providing a high cationic exchange capacity) to improve the uptake of minerals, nutrients, and trace elements by plants. Direction of use Field-tested on Crops such as Rice, wheat, potato, orchards, cotton, chilies, banana, soybean, groundnut, vegetables, fruits, flowers, major plantation crops, medicinal and aromatic plants, and all other crops especially high-value crops.

Guaranteed Content	% w/w
Total (Humic+ Fulvic) Acid	60
Total Organic Matter	50
Water Soluble Potassium Oxide (K ₂ O)	10
Moisture	12
PH	8-10

Application Methods and Dosages:

- Soil Application 2-5 Kg/1000 Lt Water/ha
- Foliar Application 20-10 gr/100 Lt Water/ha



Unique Full 50

Fulvic and Humic Acids Fertilizers

Fulvic acid, as an organic humic substance, is obtained from the decomposition of living organisms' remains, without any harmful environmental effects and Together with humic acid, it affects plant growth and is used in the production of garden products.

Unique Full 50 fertilizer is a product enriched with fulvic acid, humic acid, and potassium, which serves as an ideal nutritional supplement for nutrient-poor soils. **Unique Full 50** acts as a powerful catalyst and can deliver 5 to 25 nutrients to the plant. In addition to its nutritional effects, it is also known as a root stimulant fertilizer because it improves root growth conditions by absorbing essential nutrients. Using this fertilizer along with other fertilizers multiplies their absorption And by adjusting the soil pH, it increases the absorption of nutrients and crop yield and makes a significant contribution to soil improvement. Due to the nanostructure of this product, it is absorbed by the plant very quickly and shows its effects in the shortest time.

Unique Full 50 fertilizer is a multi-purpose product that can be used in both foliar and irrigation methods. In the foliar method, the absorption and effectiveness of this fertilizer increases significantly. Therefore, it is recommended that you prioritize this method.

Guaranteed Content	% w/w
Total Nitrogen	3.5
Fulvic Acid	12
Humic Acid	8
Water Soluble Potassium Oxide(K ₂ O)	5
Water Soluble Phosphorus Pent Oxide(P ₂ O ₅)	1
Total Organic Matter	45
PH	4-5

Application Methods and Dosages:

- Soil Application 5-10Kg/1000Lt Water/ha
- Foliar Application 0.5-1Kg/100Lt Water/ha





Technical Attachments

Plant Nutrients and Their Functions

The first part:

Macro nutrients:

Nitrogen (N): Nitrogen is a major component of proteins, hormones, chlorophyll, vitamins and enzymes essential for plant life, as well as genetic material (nucleic acids). Nitrogen metabolism is a major factor in stem and leaf growth (vegetative growth).

Phosphorus (P): As a component of ATP, the molecule that stores energy in the living cell, phosphorus is essential for all energy-consuming processes in the plant. It is a major ingredient in amino acids and a component of the cell membrane.

Potassium (K): Potassium is necessary for the formation of sugars and starch in the plant. It is involved in protein synthesis and cell division. Being a vital component of the cell wall, potassium enhances plant rigidity and hardness.

Secondary nutrients:

Calcium (Ca): Calcium is an important structural component of cell walls. It is necessary for cell growth and division, and influences water movement in cells. In some plants, calcium is required for the uptake of nitrogen. All in all, calcium is a “quality nutrient” that enhances yield quality and prolongs shelf life.

Magnesium (Mg): Magnesium is a key component of the chlorophyll molecule, hence essential for photosynthesis and formation of carbohydrates. Magnesium is involved in enzymatic reactions and assists in generation of energy.

Sulfur (S): Sulfur is a component of amino acids, proteins, and enzymes. It is also essential for the synthesis of chlorophyll. Typical deficiency symptoms: leaves turn light green.

Micronutrients:

Iron (Fe): Iron is involved in plays an important role in chlorophyll formation. It is involved in cell division that supports plant growth, and in other vital reactions in the plant. Typical deficiency symptoms: young leaf yellowing, interveinal chlorosis.

Manganese (Mn): Manganese (Mn) is required for photosynthesis and respiration. It improves green color and increases sugar and protein content. Manganese enhances plant tolerance to high light intensity.

Boron (B): Boron is necessary for cell wall formation, membrane integrity and calcium uptake. It assists in the translocation of sugars and affects numerous functions in plants, including flowering, pollen germination, fruiting, cell division, water relationships and the transport of hormones.

Zinc(Zn): Zinc is a component or functional cofactor in many enzymes, including auxins (plant growth hormones). It is essential for carbohydrate metabolism, protein synthesis and internodal elongation (stem growth)

Copper(Cu): Copper is involved in nitrogen and carbohydrates metabolism. It is a component of several enzymes, including enzymes that take part in photosynthesis and respiration.

Molybdenum (Mo): Molybdenum is involved in many enzymes and is closely linked with nitrogen metabolism as it is an important component of nitrate-reductase and nitrogenase enzymes.

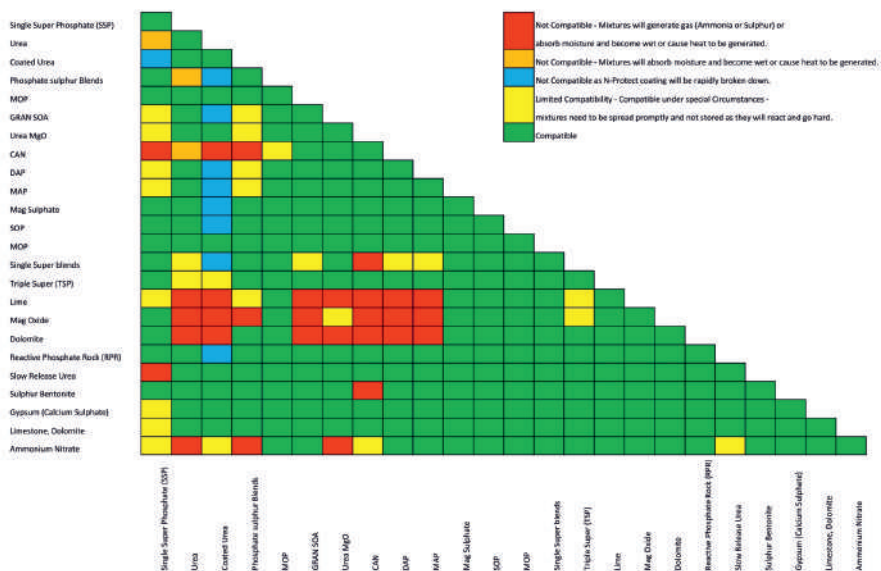


Figure 1: Mixing and compatibility table of fertilizer compounds

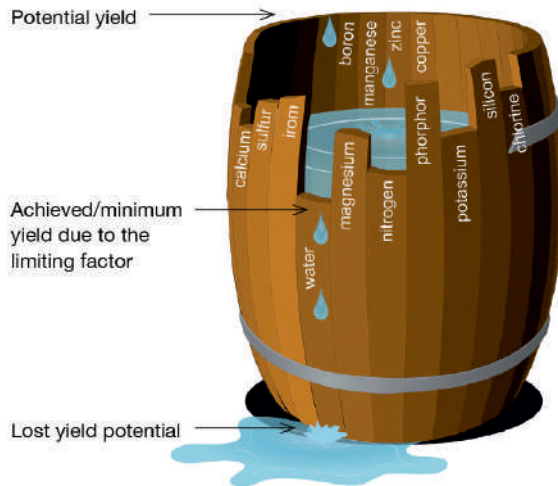


Figure 2: **Liebig's law of minimum** states that plant growth is not only determined by the total available resources, but also by the limiting factors of the same resources that are required in very small quantities by the plant. This law also applies to biological populations, soil amendments, and ecosystems, for example, to factors such as light or mineral nutrients.

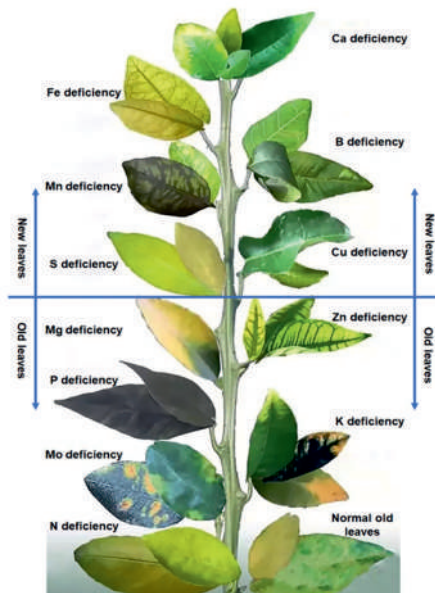


Figure 3: Abbreviated symptoms of macro and micro element deficiencies in plants

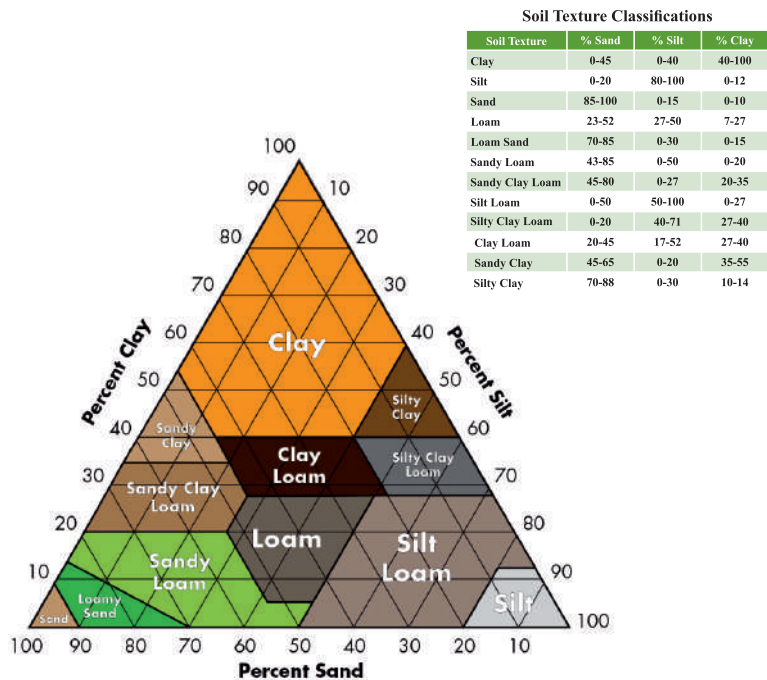


Figure 4: Table for determining the soil texture triangle using the soil analysis test

Required Records

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Feeding With Knowledge...



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