



**APTUS MANUAL**



**TRUE PLANT SCIENCE**

# THE **APTUS** PHILOSOPHY

We strive for excellence in everything we do. This applies to nutrients, customer service and quality of our public image and beliefs. Our three core brand pillars are:

**Education** – Everything we do begins with proper education. We focus on the benefit (and truth) of maximizing plant genetic potential through natural, science-based nutrition technologies. Our chief desire is to create a community of growers who understand why they achieve bigger yields with higher quality and better nutritional value.

**Quality** – We are constantly vigilant of the quality of our ingredients, distribution channels, and staff. Growers can be confident that their plants receive no synthetic or harmful materials from Aptus products - only natural nutrition. All ingredients are of the highest and of the purest quality.

**Value** – The high concentrations of our nutrient formulas means low running cost and minimal waste. Growers typically achieve better quality and higher yields for far less cost.

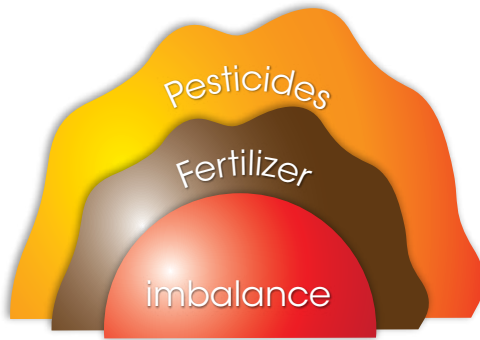
*"Only the very best  
is good enough"*

## THE **APTUS** APPROACH

The Aptus Approach is to provide quality uniform products and education that enhances the growers' production and cultivation ability. The Aptus Approach is based on a preventive methodology for host (plant), pest and environmental problems. Simply put, to avoid problems before they arise.

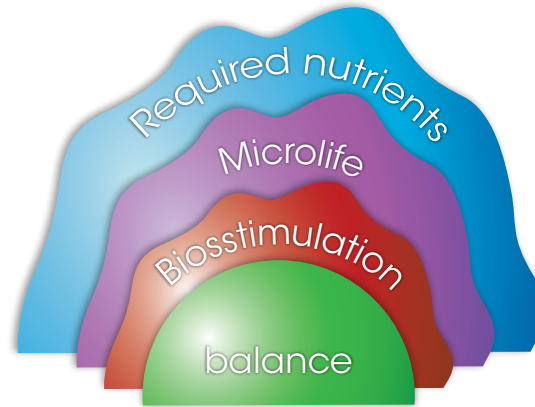
The Aptus Approach is a natural process; it fully respects the rules of nature and is a guideline to re-establish ancient natural mechanisms: soil care and plant care. Aptus is a combination of soil bioremediation, plant stimulation and proper nutrition.

# DIFFERENCE BETWEEN **CURATIVE** AND **PREVENTIVE APPROACH**



## **Curative**

*"A bottle for every problem"*



## **Preventive**

*"Let nature do it's job"*

## **APTUS** EDUCATION

Our education focuses in plant nutrition are:

1. The right nutrition, in the right amounts, at the right time
2. Natural organic nitrogen from L-amino acids
3. Importance of biostimulation
4. Chelating nutrients for maximum bioavailability
5. Specific purpose and effect of each stimulant
6. Understanding your plant's needs

## **APTUS** NUTRITION TECHNOLOGY

**Aptus technology consists of  
three important formulations:**

1. Mono-silicic acid + Microelements
2. L-amino acids + Nutrients
3. Microlife + Stimulants

# WHAT YOU'LL FIND INSIDE



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## NUTRITION EDUCATION... THE TRUTH

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Exactly what your plants need, and when they need it

### **P7 Biochemical sequencing of minerals in plants**

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Not all nutrient deficiencies are caused by a lack of nutrients

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Lamino acids plus nutrients provide the building blocks for everything plants need

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Mixing your nutrients the correct way makes sure you get the best results

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Grow your own vitamins and minerals

### **P53 Aptus feeding schedule**

Different schedules for different experience levels

#### **REGULATOR Nutrition Manager, Anti-Stress Plant Enhancer**

It's a completely new technology in plant science that will change the way you think about plant nutrition.

#### **STARTBOOSTER Root and Growth Booster**

Organic nitrogen, humic and fulvic acids, and huge populations of beneficial bacteria to stimulate your root zone and accelerate vegetative growth.

#### **TOPBOOSTER Bloom Booster**

Stimulates plants into bloom with naturally derived bloom stimulators, vitamins, Lamino acids and polysaccharides to bulk dry weight.

#### **ENZYM+ Powerful Enzymes**

Stimulates soil beneficials, cleans root zone and breaks down nutrient salts into plant available elements.

#### **NUTRISPRAY Foliar Applied Liquid Fertilizer**

A rapid-absorbing foliar spray that avoids the most common microelement deficiencies.

#### **FUNGONE Prevents Fungi, Bacteria and Viruses**

Thoroughly cleans the leaf surfaces of your plants. Fungone is not harmful to plants and does not inhibit plant processes.

#### **SYSTEM-CLEAN Cleaning Drip Systems**

Prevents microbial attack and blockages in irrigation systems. Breaks down biofilm in irrigation lines.



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#### **SUPER-PK Powerful PK Bloom Stimulator**

Contains 20% phosphorus, 23% potassium plus bloom stimulators, L-amino acids and vitamins.

#### **N-BOOST Nitrogen Booster**

Contains organic nitrogen and L-amino acids to stimulate plants during the vegetative or growth phase.

#### **P-BOOST Phosphorus Booster**

High levels of bioavailable phosphorus to help the development of flowers and fruit combined with L-amino acids to build plant mass.

#### **K-BOOST Maturation Booster**

Stimulates maturation process with high levels of naturally chelated potassium, which is an essential precursor to terpenes and essential oils.

#### **CaMg-BOOST Bud Booster**

Natural calcium and magnesium supplement that stimulates fruit and flower hardening.

#### **FULVIC-BLAST Complete Micro-element Booster**

Contains low molecular weight fulvic acid combined with L-amino acids and microelements, which allows a direct uptake of nutrients by the plant.

#### **HUMIC-BLAST Organic Soil Conditioner**

Concentrated humic acids from the Leonardite layer combined with growth promoting L-amino acids, plant extracts and microlife extracts.



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#### **MICROMIX SOIL Beneficial Soil Borne Microlife**

Contains a mix of microorganisms and stimulants. The microorganisms are selected by their functions and specially treated to remain stable.

#### **MICROMIX DRIP Beneficial Soil Borne Microlife**

Contains a mix of microorganisms and stimulants. The microorganisms are selected by their functions and specially treated to remain stable.

#### **MYCOR MIX Enlarges Root System/Facilitates Nutrient Uptake**

Contains a mixture of various species of Endomycorrhizae.



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#### **ALL-IN-ONE LIQUID One Liquid For All Mediums**

A 100% mineral based fertilizer suited for all mediums and systems. It can be used from the vegetative phase all the way through to flowering/maturation phase. The unique manufacturing process makes All-in-One Liquid not sensitive to pH-variations and therefore applicable in a wide pH-range.

#### **ALL-IN-ONE PELLET Nutrient Pellet**

Complete 100% organic nutrition with slow-release effect, ideal for your in- and outdoor garden. Mix in or top feed everything your plant needs for a complete plant cycle.






## TRUE NUTRITION THE MISSING LINK TO GROWING SUCCESS

The way plants assimilate nutrients, the interactions between nutrients and the bioavailability of nutrients are widely misunderstood.

Modern plant nutrition systems are managed as if they were a chemistry experiment. All kinds of chemical compounds for nutrition (especially N, P, K) and protection (pesticides like fungicides and insecticides) are released in the plant's environment. Results are expected simply because all the proper chemicals are present.



However, nature teaches us that the use of chemical-based nutrients and pesticides is not enough to solve existing plant problems. Typically, as more chemicals are added, more and more problems are created. When using chemical-based nutrients it is common that an imbalance is created in the nutrient uptake by the plant.

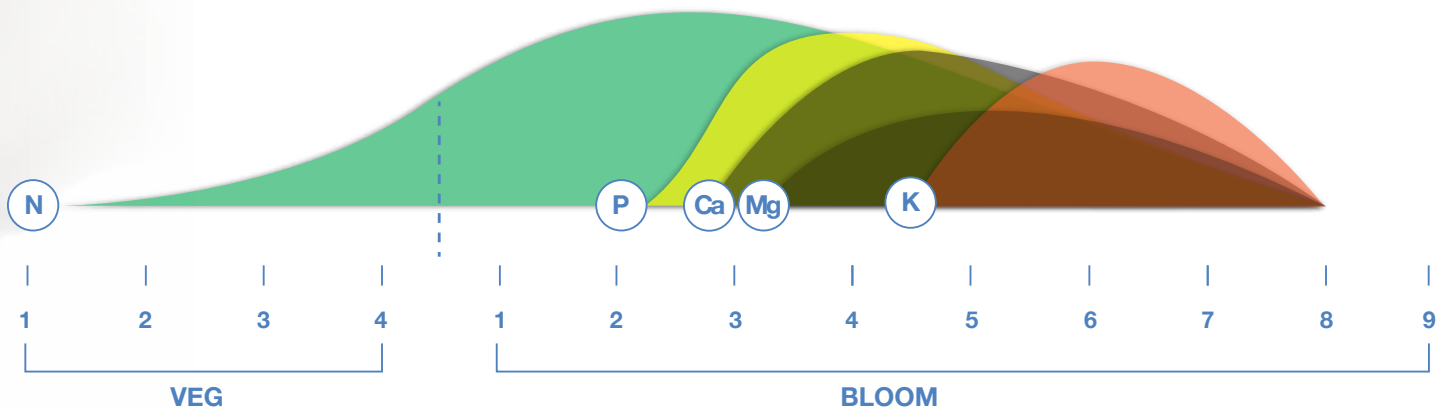
Chemical fertilizers tend to decrease pH in plants, which induces plant weakness against pests and fungal diseases. Chemical fertilizers and pesticides also decrease microlife populations and species in the grow medium significantly. This results in poor mediums, poor mineralization and minimal plant stimulation.

To fix these problems, better understanding of nutrient uptake sequencing, nutrient interactions and bioavailability of nutrients is essential.

## STAGES IN PLANT DEVELOPMENT

Plants have different and distinct development stages: rooting, growing, shooting, blooming, fruit or flower development and maturation. Each stage requires a specific balance of nutrition and mineral uptake for maximum production.

Many growers supplement with growth 'boosters' at the wrong development stage when the plant cannot utilize the nutrient. These unused minerals sit in the growing medium interacting with microlife and other minerals, many times causing deficiencies and lockout.



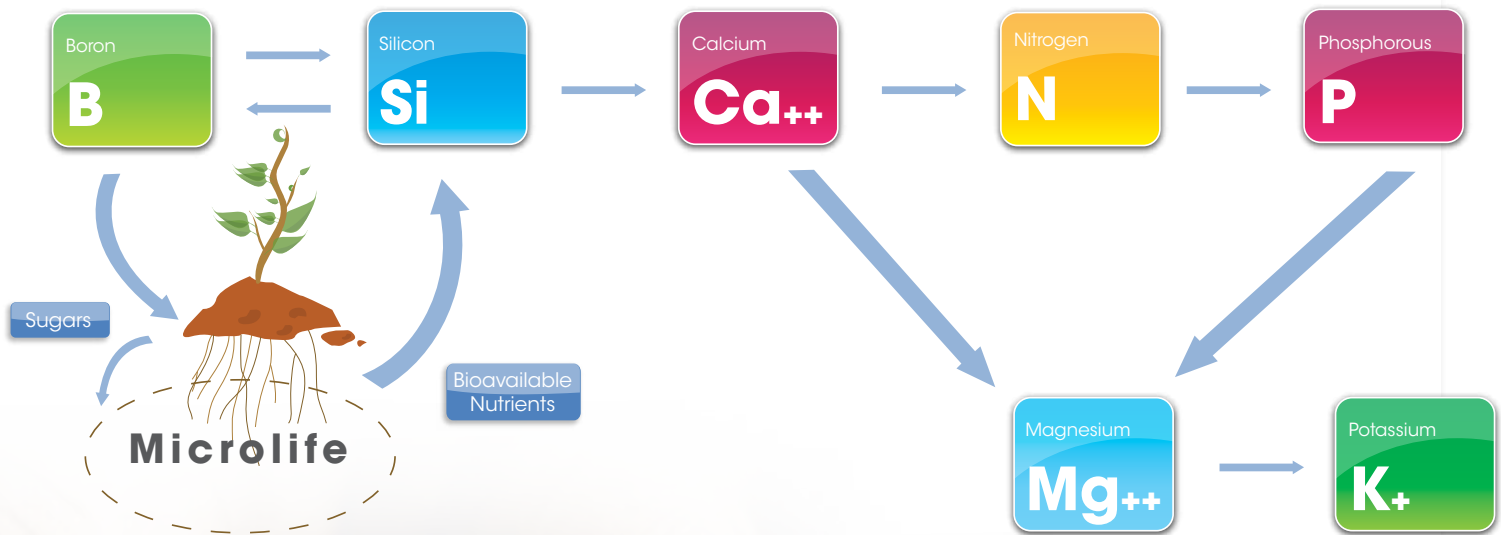
## A COMMON MISTAKE THAT CAN HURT YIELDS

A common practice is to add a phosphorus and potassium (P/K) booster during all or most of the flowering phase. This can create significant problems with nutrient uptake that decrease yield and quality. Most plants only need small amounts of potassium during growth and early flowering. Potassium is mostly needed during the ripening and maturation stages (late flowering).

Excess of unused Potassium in the growing medium can 'push' away nitrogen, calcium, and magnesium. These are some of the most common deficiencies. Growers can avoid these issues by respecting the natural laws and providing the right balance of nutrients at the proper development stage.

## BIOCHEMICAL SEQUENCING OF NUTRIENTS

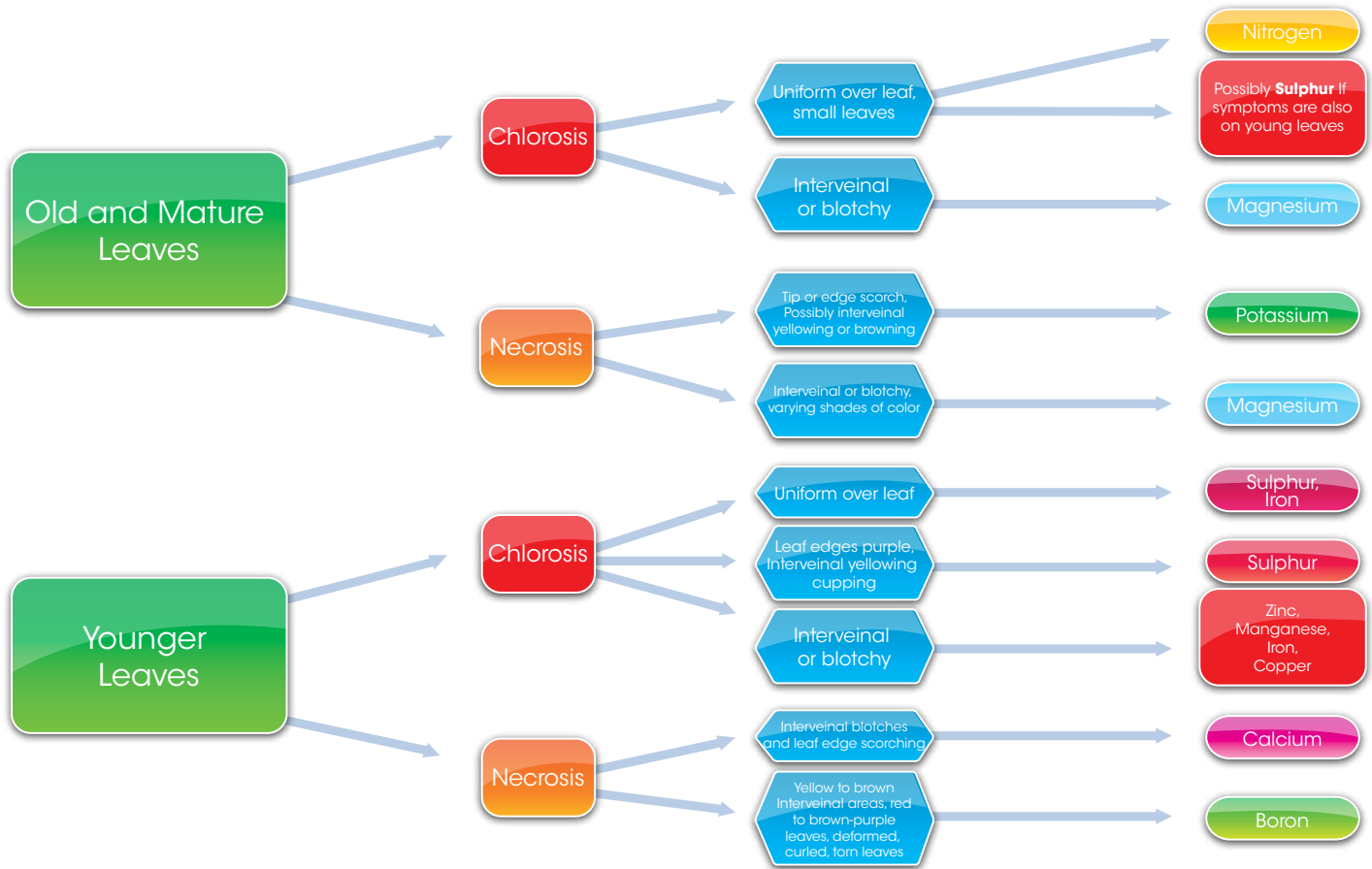
It is important to understand that plants have a defined biological sequence of nutrient uptake. This starts with boron, which makes the root system leach sugars into the medium. These sugars feed the microbes, which transform silicates (Si) into silicic acid. Silicic acid enhances calcium uptake, followed by nitrogen (in amino-acid form), magnesium, phosphorous and potassium.



These elements should be present in a bioavailable form to plants. If one nutrient in this sequence is not available (or less available), the uptake of all other elements in the sequence is more difficult or missed.



**It is very important to respect this sequence**  
in order to avoid mineral deficiencies and/or nutrient uptake problems.



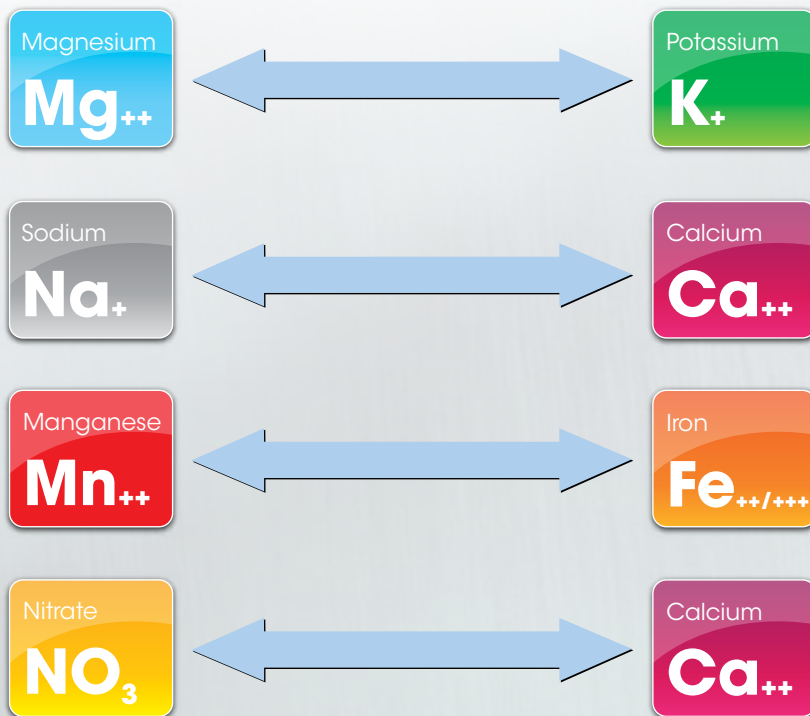
By providing correct nutrition in the correct sequence and amounts to your plants from the beginning, many of these problems can be avoided. It is always better to maintain a **preventive methodology versus curative**.

## ANTAGONISTIC ACTION OF NUTRIENTS

It is very important to understand how certain nutrients react with each other. If you don't understand these interactions, you may over-supplement with a specific nutrient in attempt to correct a deficiency.

### NOT ALL DEFICIENCIES ARE CAUSED BY A LACK OF NUTRIENTS!

For example, calcium deficiency may be diagnosed due to low calcium levels OR because there are high levels of nitrates (NO<sub>3</sub>). Nitrates 'push' calcium away and can block absorption. So you should use organic nitrogen instead of inorganic nitrogen, which is high in nitrates.



The antagonistic action of nutrients shows how overdoses of certain elements can lock out or displace another element. This list shows which elements react with each other:

Understanding nutrient antagonism makes diagnosing deficiencies and excess more difficult, but ultimately more accurate.

## THIS CHART SHOWS WHICH ELEMENTS ARE BLOCKED BY EXCESS OF A PARTICULAR NUTRIENT

Most nutrients usually work together, however this is not always the case. If phosphorus is in excess it brings in more nitrogen to the plant, unbalancing the nutrition. At the same time it also limits zinc, iron and copper. Optimum nutrition is achieved by balancing the nutrients in the medium.

### ELEMENTS IN EXCESS

### NUTRIENTS USUALLY AFFECTED

<b>NITROGEN</b>	<b>POTASSIUM, CALCIUM</b>
<b>POTASSIUM</b>	<b>NITROGEN, CALCIUM, MAGNESIUM</b>
<b>PHOSPHORUS</b>	<b>ZINC, IRON, COPPER</b>
<b>CALCIUM</b>	<b>BORON, MAGNESIUM, PHOSPHORUS</b>
<b>MAGNESIUM</b>	<b>CALCIUM, POTASSIUM</b>
<b>IRON</b>	<b>MANGANESE</b>
<b>MANGANESE</b>	<b>IRON, MOLYBDENUM, MAGNESIUM</b>
<b>COPPER</b>	<b>MOLYBDENUM, IRON, MANGANESE, ZINC</b>
<b>ZINC</b>	<b>IRON, MANGANESE</b>
<b>MOLYBDENUM</b>	<b>COPPER, IRON</b>
<b>SODIUM</b>	<b>POTASSIUM, CALCIUM, MAGNESIUM</b>
<b>ALUMINIUM</b>	<b>PHOSPHORUS</b>
<b>AMMONIUM ION</b>	<b>CALCIUM, COPPER</b>
<b>SULPHUR</b>	<b>MOLYBDENUM</b>

These problems arise often when growers attempt to create their own 'custom' nutrient recipe from multiple product lines from different companies. Unless a grower is highly scientific, this practice results in overdose and underdose of specific nutrients.

The plants get into wild swings of deficiencies and lockout, which results in decreased yield and quality. By using a balanced, high-quality, specifically formulated nutrition system, plants can maximize their genetic potential.

# QUALITY AND CONCENTRATION

The most forgotten aspect in nutrition management, is the source and quality of the ingredients of fertilizers and bio-stimulants. The best bioavailability of nutrients is obtained when using organic or organo-mineral compounds with a minimum of ballast salts and free of heavy metals.

Most nutrient products are mixed and diluted in large amounts of water. And they are chelated using cheap, synthetic chemicals. These methods produce inferior nutrients that are not bioavailable for plants. The plant needs to waste energy to be able to transform the nutrients before they can be used.

Chelating nutrients in L-amino acids is the most natural and effective method to ensure rapid and complete uptake into plant tissue. All Aptus nutrition products are chelated in L-amino acids and contain 100% active ingredients.

## WHY AMINO ACIDS ARE CRITICAL TO PLANT DEVELOPMENT

Amino acids are organic compounds and are the building blocks of proteins. Proteins are important nutrients for crops for managing metabolism, structure, transport, communication and growth regulation on a cellular level.

Amino acids provide peptides and organic nitrogen and are able to organically chelate nutrients and induce plant stimulation. Research shows interactions in biostimulation activities, enzymatic functions, pest/pathogen resistance, growth/bloom and maturation.

Nature only recognizes left turning amino acids (L-amino acids), as they are hydrolyzed in the same way nature does: by enzymatic hydrolyzation. Left turning amino acids in various combinations have different roles to play in plant development. Their role can be nutritive and/or a precursor for biochemical plant processes and plant stimulation.

# USING ALL ACTIVE INGREDIENTS

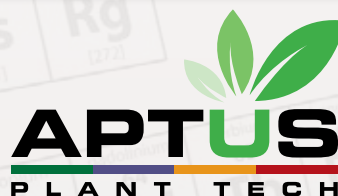
Depending on a crop's development phase (e.g. vegetative, blossom, fructification, maturation), plants require specific combinations of amino acids and nutrients.

## NUTRIENTS + L-AMINO ACIDS = NUTRITION MOVEMENT

Combining bioavailable L-amino acids with nutrients (N, P, K, Ca, Fe, Mg, Mn and Zn) helps transport nutrients throughout plant tissue. This helps the plant to better absorb nutrients, enabling an optimal nutrient uptake throughout plant tissue.

## HIGH STANDARDS OF QUALITY

Aptus has invested 15 years into intense biological nutrition research and has created a line of organic nutrients and stimulants for plants. These "boosters" are specifically formulated to provide optimal nutrient sequencing and microflora stimulation so plants can maximize their genetic possibilities. Aptus has been adopted by experienced growers across Europe, North and Latin America. We educate growers to move away from harsh synthetic chemicals and inferior formulations.



# REGULATOR

NUTRITION MANAGER AND ANTI-STRESS PLANT ENHANCER

Regulator aids in uptake of nutrients, strengthens plant structure and increases the plant's ability to handle various environmental stresses (abiotic and biotic). Regulator is the cornerstone of any plant nutrition program. It increases the absorption and bioavailability of all other nutrients by acting as an efficient transporter for other elements. This increases general plant strength, health and nutrition. This product provides a gateway for the absorption and utilization of other nutrients in a nutrient program. The patented formula works with natural plant mechanisms to provide the right nutrition in the right amounts at the right time.

## WHY USE REGULATOR?

- Resistance to abiotic stress (environmental: temperature, wind, drought)
- Resistance to biotic stress (pests and pathogens)
- Improves uptake, absorption and utilization of nutrients
- Stronger cell structure and epidermis layer creating stronger plants and thicker stems (increases dry weight)
- Reduces and controls the space between internodes caused by temperature stress and unbalanced nutrition
- Increases resistance to salinity (nutrient salt buildup)
- Reduces transpiration (loss of moisture from the leaves)

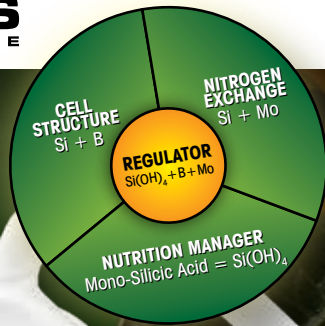
## HOW TO USE REGULATOR

Regulator is a highly concentrated product (1:6660). A small dosage of 1,5 ml per 10 L of water is enough for large visible effects. Because of the high concentration, Regulator is extremely cost effective to use.

Mix Regulator always in a tank full of clean water before mixing other fertilizers, boosters or crop protection products. Mix until Regulator is evenly distributed through the water. Then continue adding fertilizers, boosters or crop protection products.

Make sure that no water or dirt mixes in the Regulator bottle/can.  
Always use dry and clean syringes/measuring cups when extracting Regulator.





## REGULATOR CONTAINS

- Mono-silicic acid (Si) – Nutrient transporter
- Boron (B) – A precursor to enhance calcium uptake and fibre production
- Molybdenum (Mo) – Moves nitrogen from lower to upper leaves

## EDUCATION

Boron (B) is the basis for all other nutrient usage. Particularly, it enhances calcium (Ca) uptake and stimulates the production of plant fibres (better quality, more dry matter). molybdenum (Mo) is a key part in the activity of the nitrogenase enzyme. When nitrogen (N) is missing, plants look for molybdenum in order to stimulate nitrogenase activity, which helps move nitrogen from old leaves to new leafy growth.

## HOW REGULATOR WORKS

- Improves bioavailability of nutrients based on plant need (regulates uptake of nutrients)
- Strengthens plants with better cell structure and improves plants natural disease resistance
- Increases resistance to abiotic (environmental) stress and biotic (pest, pathogens and plagues) stress

## TIPS FROM SUCCESSFUL GROWERS

- Always mix Regulator first in your reservoir filled with clean water. Otherwise other nutrients may not be readily available for rapid plant utilization
- Regulator makes plants more compact. If plants grow too high or too fast, a higher dosage of Regulator slows down plants growth in length (the plant becomes wider with more branches)
- Often helps correct nutrient deficiencies by making existing nutrients more bioavailable
- Use to help control the distance between the branches (internodes)

# STARTBOOSTER

## ROOT & GROWTH BOOSTER

Startbooster is a specially formulated organic root and growth stimulator. Startbooster is 100% biological with active organic ingredients, which stimulate the development of the root system and vegetative growth. Specific microlife biomass helps to enhance root development. It stimulates root hair development while conditioning the soil and providing bioavailable nutrition during vegetative growth.

### WHY USE **STARTBOOSTER**?

- Powerful root and growth stimulator (more roots and plant growth)
- Improved development of stems, root system and plant tissue (improved vegetative growth)
- Improves microlife populations and strength
- Improves cellular development of stems (up to 2x thicker)

### HOW TO USE **STARTBOOSTER**

Use Startbooster as additive next to NPK fertilizers. On pre-fertilized soil Startbooster can be used without additional growth fertilizers. When using Startbooster the pregrowth phase can be shortened.

Use Startbooster during the pregrowth phase and the first week of flowering. Use 2,5 ml per 10 L of water. Add Startbooster after adding the NPK nutrients and after measuring EC.

Startbooster is a 100% organic product. Be careful with the use of organic product in drip irrigation systems. In such systems, organic products increase the risk of blockages. Therefore, always use System-Clean when using Startbooster in drip irrigation systems.







## STARTBOOSTER CONTAINS

- Organic nitrogen chelated with L-amino acids
- Microlife biomass from controlled fermentation of selected strains (specific beneficials)
- Humic acid from the Leonardite layer
- High-grade fulvic acid

## HOW STARTBOOSTER WORKS

- Organic nitrogen provided by L-amino acids increases vegetative growth without risk of burning or overdose
- L-amino acids provide growth, biostimulation and boost bacteria populations
- Humic acid improves water retention, root area conditioning, and cation/anion exchange
- Microlife biomass breaks down nutrients and enhances antagonistic action against pathogens

## TIPS FROM SUCCESSFUL GROWERS

- Use a 1:1000 dilution to feed new clones (1 ml per 1 L)
- During transplanting, dip the roots of the plants in a 1:100 mixture (10 ml per 1 L)
- Do not keep Startbooster in your reservoir for more than 2 - 3 days in order to avoid organic biofilm buildup and blockage of irrigation drip lines

# TOPBOOSTER

## BLOOM BOOSTER

Topbooster is a combination of a bloom and maturation stimulator. It is 100% organic with active ingredients that stimulate plant flowering response. The stimulation provided by the active ingredients produce larger fruit with more fibres, resins and sugars, which increase the quality of the end product. Topbooster helps improve the natural flavours while enhancing the appearance of your product.

### WHY USE TOPBOOSTER?

- Improves transition between different stages in plant physiology (better plant development)
- Improves quality and end product (flavour, appearance and quality)
- Improves yield by stimulating more bud sites (greater quantity of flowers and buds)
- Improves flowers by increasing fibres, resins and sugars (improved end product)

### HOW TO USE TOPBOOSTER

Topbooster contains a synergetic cocktail of active ingredients that stimulate the complete flowering process. We therefore advise to use Topbooster almost during the complete bloom phase. Use Topbooster as an additive next to a base NPK fertilizer.

Use 2 ml per 10 L of water (1:5000) from the second week of flowering until the last week.

Topbooster is a 100% organic product. Be careful with the use of organic product in drip irrigation systems. In such systems, organic product increase the risk of blockages. Therefore, always use System-Clean when using Topbooster in drip irrigation systems.





## TOPBOOSTER CONTAINS

- Lamino acids
- Polysaccharides (sugars)
- Trace elements: boron (B), iron (Fe), molybdenum (Mo)
- Bloom promoting natural plant stimulants
- Vitamin complexes produced by natural fermentation

## HOW TOPBOOSTER WORKS

- Lamino acids aid in floral development and maturation
- Potassium (K), iron (Fe) and other micronutrients assist floral development
- Polysaccharides (sugars) stimulate nutrient uptake and microflora populations
- Vitamins promote hormone production
  - Gibberellins for shooting
  - Cytokinins for cellular division

## TIPS FROM SUCCESSFUL GROWERS

- Topbooster may be used at a slightly higher dose for even better results. Dosage can be increased during the cycle, from 2 ml up to 4 ml per 10 L of water
- Do not keep Topbooster in your reservoir for more than 2 - 3 days in order to avoid biofilm buildup and blockage of irrigation drip lines

# ENZYM+

POWERFUL ENZYMES

Enzym+ is a powerful blend of enzymes that have different functions. Enzymes keep the root surface clean, remove dead organic matter and root residues, transform accumulated or saturated salts into usable plant nutrients and stabilize EC in the grow medium. This improves the plant's natural ability to absorb more nutrients while avoiding nutrient build up in the medium that can cause lock up and pathogen problems in the root system.

## WHY USE ENZYM+?

- Grow mediums can be used longer and for multiple cycles (less medium replacement)
- Stabilizes EC in mediums and prevents salts accumulation and excess of nutrient salts (decreases nutrient lock up)
- Keeps root system and medium clean (improves absorption, reduces residues)

## HOW TO USE ENZYM+

At each watering: Use 2,5 ml per 10 L of water (1:4000).

Once a week: Use 5 ml per 10 L of water (1:2000).

Add Enzym+ as last in the nutrient solution preferably just before watering.

Shake well before use.





## ENZYM+ CONTAINS

- Cellulase and beta-glucanase complexes
- Blend of sugar complexes (polysaccharides)
- Manganese (Mn)

## HOW ENZYM+ WORKS

- Cellulose (plant matter) forms around the roots, which inhibits nutrient absorption. The cellulase in Enzym+ breaks down cellulose and keeps the roots clean
- Beta-glucanase transforms precipitated nutrient salts into plant available nutrients
- Manganese (Mn) stimulates microflora and stabilizes the solution

## TIPS FROM SUCCESSFUL GROWERS

- Reuse your grow medium for multiple cycles! Flush medium between cycles to clean out dead plant material and nutrient salts
- Do not leave a reservoir with nutrients and Enzym+ for more than 2 days to avoid nutrient degradation. Ideally, Enzym+ is added last to the nutrient solution, just before feeding
- Enzymes start to work instantly, especially at greater than 20°C
- Use Enzym+ once a week to keep the root area clean

# NUTRISPRAY

FOLIAR APPLIED LIQUID FERTILIZER

NutriSpray is a blend of natural surfactants, stimulators and microelements, to be used as a foliar fertilizer. It provides essential microelements during the complete growing cycle and leaves a natural coating on the leaf to protect and to feed. NutriSpray can be used for general nutrition or for deficiency correction.

## WHY USE NUTRISPRAY?

- Leaves an active layer containing microelements on leaf surface
- Layer fully biodegrades within 10 - 15 days
- Fast-acting nutrient absorption
- Quickly treat common deficiencies

## HOW TO USE NUTRISPRAY

NutriSpray can be used as a regular nutrient or for treating deficiencies in case of a nutrient lockout in your medium.

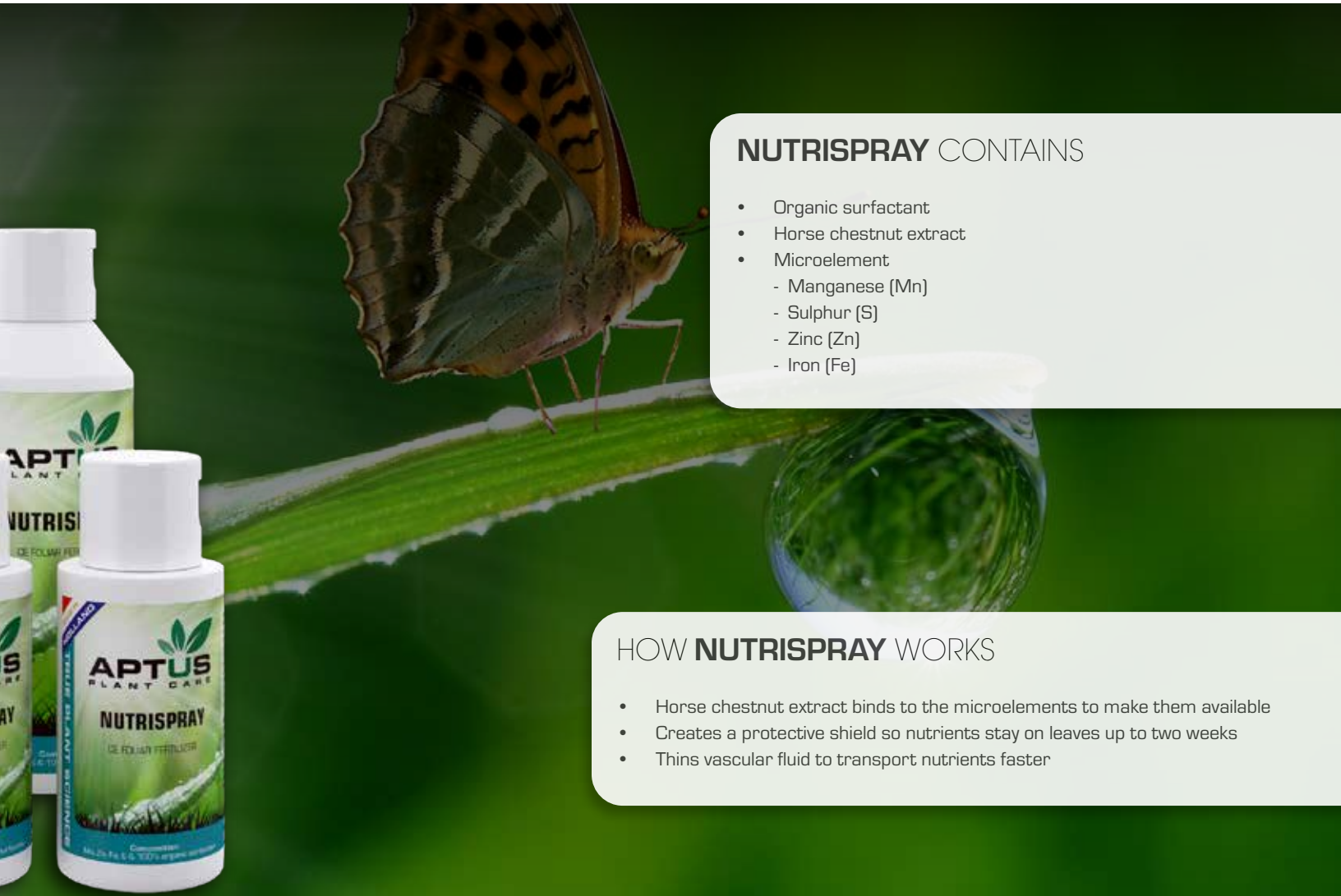
Do not use full strength, always dilute with water.

Use 2 ml per 1 L of water and spray the entire leaf surface.

Indoor: Spray during weeks 1, 3, 5 of bloom for general nutrition.

Outdoor: Spray 1 week after planting, then once a month until harvest.





## NUTRISPRAY CONTAINS

- Organic surfactant
- Horse chestnut extract
- Microelement
  - Manganese (Mn)
  - Sulphur (S)
  - Zinc (Zn)
  - Iron (Fe)

## HOW NUTRISPRAY WORKS

- Horse chestnut extract binds to the microelements to make them available
- Creates a protective shield so nutrients stay on leaves up to two weeks
- Thins vascular fluid to transport nutrients faster

## TIPS FROM SUCCESSFUL GROWERS

- Faster correction than root feeding if any deficiencies appear
- Spray mother plants one week before cutting clones for healthier cuttings
- Spray cuttings once per week to provide a protective shield and available nutrients
- Always spray with lights off to avoid burning. Leave lights off for 20 - 30 minutes after spraying

# FUNGONE

PREVENTS FUNGI, BACTERIA AND VIRUSES

Fungone is a protected preventive foliar spray that decreases pathogen problems on leaves while increasing the plant's resistance to future attacks. It helps prevent fungal, bacterial and viral problems by cleaning the leaf and creating conditions that do not favor pathogen development. It prevents future infections by producing a preventive shield over leaves. It is extremely useful for outdoor applications.

## WHY USE FUNGONE?

- Prevent viral, fungal, and bacterial infections by cleaning plant surfaces
- Creates a protective shield on the plant leaf surface
- Non-toxic to plants and animals
- Prevents bud rot and mildew

## HOW TO USE FUNGONE

Fungone is a ready to use Aptus product. It must be sprayed directly on the plant.

For larger volumes, Fungone-concentrate can be used because 1 L is enough to make 5 L ready to use spray solution. Spray Fungone ready-to-use or 5 times diluted Fungone-concentrate, directly on the plant.

Always ensure that the lights are off during spraying and that proper protection gear is used consisting of a mask and goggles. Fungone is not toxic and causes no residue in the plant.







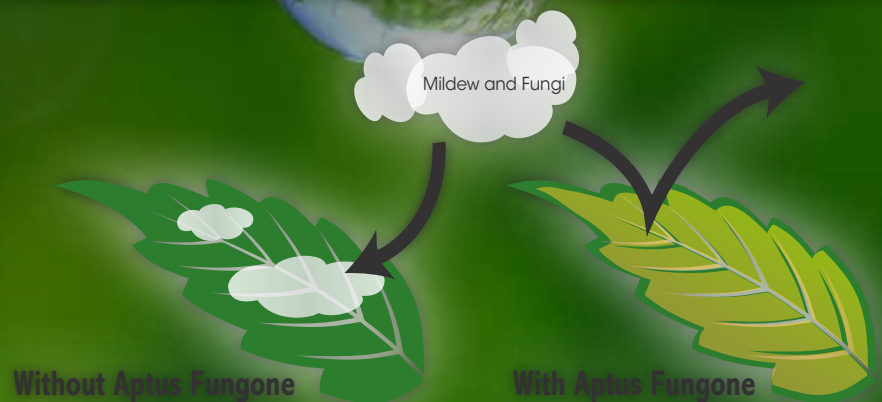
## FUNGONE CONTAINS

- 3% food grade  $H_2O_2$
- Ag (colloidal silver)
- Food grade adjuvant

## HOW FUNGONE WORKS

Fungone uses atomair oxygen (O3) to oxidize bacteria and fungi. Pathogens are unable to develop resistance to oxidization. Oxidation by O3 occurs naturally in nature and artificially in some greenhouses to control bacteria and pests.

The remaining elements of the spray produce natural oxygen and clean water. Fungone contains a food grade adjuvant that helps it stick and spread evenly on the plant surface for a long lasting effect.



## TIPS FROM SUCCESSFUL GROWERS

- Spray Fungone when the lights are off. Leaves burn quickly when sprayed with the lights on. The droplets of the spray act as prisms, amplifying the light intensity
- Fungone is ready-to-use and can be applied directly as a foliar treatment or dilute with water for treating sensitive plants (1 part Fungone to 4 parts pure water). Once diluted, use the mixture immediately
- Use weekly as a preventive measure up to the last week before harvest

# SYSTEM-CLEAN

## CLEANING DRIP SYSTEMS

System-Clean is a powerful oxidizer that prevents microbial attacks, line blockages and nutrient build up in irrigation systems. A clean irrigation system improves growth and development of plants especially in the root system by allowing more oxygen and nutrients to reach the plant without affecting the pH. Unabsorbed nutrients increase biofilm in the irrigation system. These remaining nutrients acidify (lower pH) the medium increasing the chance of microbial attack by providing nutrition for pathogens.

### WHY USE **SYSTEM-CLEAN**?

- Prevents loss of nutrients and oxygen in irrigation systems (improves efficiency of irrigation system and plant absorption)
- Removes build up of biofilm in irrigation systems (prevents nutrient build up)
- Adds extra oxygen to the root area (improves nutrient solution dissolved oxygen)
- Removes source of pathogens

### HOW TO USE **SYSTEM-CLEAN**

Add System-Clean to the nutrient tank, preferably just before each watering at 2,5 ml per 10 L of water.

Add System-Clean last to the nutrient tank after adjusting the pH value. System-Clean will last for maximum 3 days in the nutrient solution.

If your nutrient solution stands for more than 3 days, add more System-Clean to the nutrient solution to help minimize biofilm and residue build up.





## SYSTEM-CLEAN CONTAINS

- 8% food grade  $H_2O_2$
- Ag [colloidal silver]

## HOW SYSTEM-CLEAN WORKS

System-Clean helps maintain a healthy irrigation system by removing biofilm and keeping high levels of oxygen in the nutrient solution.



## TIPS FROM SUCCESSFUL GROWERS

- Add System-Clean just before watering to your nutrient mix. If possible do not leave your nutrient mix with System-Clean in it for too long (2 - 3 days max) because of possible reactions with organic products
- Use System-Clean with water for a system flush between cycles

# FOR SUSTAINABLE URBAN GARDENING

**REGULATOR**  
Nutrition Manager,  
Anti-Stress Plant Enhancer

- regulates uptake of nutrients
- strengthens plant structure
- increases plant resistance to stress (abiotic and biotic)
- source of plant-available boron

**CaMg-BOOST**  
Bud Booster

- improves structure of flower and fruit
- improves firmness of flower and fruit
- source of plant-available calcium

**K-BOOST**  
Maturation Booster

- stimulates maturation process
- improves yield and quality
- source of plant-available sulphur

**FULVIC-BLAST**  
Complete Micro-Element Booster

- prevents nutritional imbalances
- breaks down nutrient salts
- helps remove heavy metals
- source of plant-available iron

**FULVIC-BLAST**  
Complete Micro-Element Booster

- prevents nutritional imbalances
- breaks down nutrient salts
- helps remove heavy metals
- source of plant-available manganese and zinc

**REGULATOR**  
Nutrition Manager,  
Anti-Stress Plant Enhancer

- regulates uptake of nutrients
- strengthens plant structure
- increases plant resistance to stress (abiotic and biotic)
- source of plant-available molybdenum

**CaMg-BOOST**  
Bud Booster

- improves structure of flower and fruit
- improves firmness of flower and fruit
- source of plant-available magnesium

**K-BOOST**  
Maturation Booster

- stimulates maturation process
- improves yield and quality
- source of plant-available potassium

## P-BOOST

Phosphorus Booster

- improves blooming process
- stimulates the production of proteins, plant hormones and vitamins
- source of plant-available phosphorus



P

## N-BOOST

Nitrogen Booster

- stimulates plant growth during the vegetative phase
- stimulates the soil
- source of plant-available nitrogen



N

Soil life friendly!

Microlife

AMINO ACIDS

CARBON

N

P

S

Ca

K

Mg

**ALL-IN-ONE PELLETT**  
100% Organic Nutrient Pellet

- provides complete organic nutrition
- slow-release effect for up to 10-12 weeks



**MYCOR MIX**  
Facilitates Uptake of Nutrients

- enlarges the root system
- enhances phosphorus uptake



**STARTBOOSTER**  
Root- and Growth Booster

- stimulates root hair development
- provides bioavailable nutrition during vegetative growth



**MICROMIX DRIP**  
Microlife Enhancer

- stimulates microlife
- plant stimulation



**MICROMIX SOIL**  
Soil Conditioner

- beneficial microlife
- plant stimulation



**ENZYM+**  
Enzymatic Conditioner

- keeps root surfaces clean
- prevents salts accumulation in grow medium



# SUPER-PK

POWERFUL PK BLOOM STIMULATOR

Super-PK is a superior organo-mineral bloom stimulator. It is 20% phosphorus (P) and 23% potassium (K) combined with L-amino acids making it ideal for bloom stimulation.

## WHY USE SUPER-PK?

- Superior organo-mineral product
- Highly concentrated
- Contains L-amino acids

## HOW TO USE SUPER-PK

Use Super-PK during the flowering phase.  
Use 2,5 - 5 ml per 10 L of water.

Shake before use. Leaves no residue in the irrigation system.  
Fully water-soluble. Ideal for use in hydroponic systems.





## SUPER-PK CONTAINS

- 20% phosphorus (P)
- 23% potassium (K)
- Bloom stimulating L-amino acids
- Bloom stimulating vitamins

## HOW SUPER-PK WORKS

- High levels of phosphorus and potassium stimulates blooming and flowering plants
- Improves firmness and compact structure of end product

## TIPS FROM SUCCESSFUL GROWERS

- With sensitive plants, Super-PK should only be used from the 4th or 5th week of the flowering phase
- Use half dosage at the beginning of flowering to initiate rapid bloom development
- Super-PK has a pH of 8.5 - 9 and can be used to raise the pH of a solution

# N-BOOST

## NITROGEN BOOSTER

Plants have a large demand for nitrogen during the vegetative or growth phase. N-Boost is a source of organic concentrated nitrogen and L-amino acids. N-Boost is fully water-soluble and leaves no residues. N-Boost is an organic product that stands out for the bioavailability of the growth-promoting substances. N-Boost has a powerful stimulating effect on the growth process and it also stimulates the soil. N-Boost gives you optimal support during the growth without risks of clogging.

### WHY USE N-BOOST?

- Fully organic growth stimulator
- Improves growth productivity
- Improves sugar content
- Provides a compact and solid growth
- Improves resistance to fruit damage
- Low nitrate content in the end product

### HOW TO USE N-BOOST

Use N-Boost throughout the growth phase.  
Use 3 - 5 ml per 10 L of water.

Shake before use. Leaves no residue in the irrigation system.  
Fully water-soluble.







## N-BOOST CONTAINS

- Organic nitrogen (N)
- L-amino acids

## HOW N-BOOST WORKS

- Organic nitrogen provided by L-amino acids increases vegetative growth without risk of burning or overdose
- L-amino acids provide growth, biostimulation and boost bacteria populations

## TIPS FROM SUCCESSFUL GROWERS

- Replace Startbooster as growth and root stimulator by N-Boost in drip systems to prevent clogging
- N-Boost is fully water-soluble and does not leave any residue in drip systems
- Do not use N-Boost in combination with Startbooster (in case nitrogen level in nutrition schedule is too high)

# P-BOOST

## PHOSPHORUS BOOSTER

P-Boost is a phosphorus booster that is 100% soluble in water and will not produce residues. P-Boost contains organic acids and can also help to lower the pH of the water in your nutrient tank. P-Boost is an organo-mineral product that improves blooming processes and stimulates the production of proteins, plant hormones and vitamins.

### WHY USE P-BOOST?

- Provides a large amount of organic phosphorus (P) in the generative and flowering phase
- 100% water soluble and organic leaving no residue
- Combines organic nitrogen (N) and phosphorus (P) with L-amino acids
- High bioavailability
- Powerful stimulating effect on the blooming process

### HOW TO USE P-BOOST

Use P-Boost from budding until the sixth week of flowering.  
Use 3 - 5 ml per 10 L of water.

Shake before use. Leaves no residue in the irrigation system.  
Fully water-soluble.





## P-BOOST CONTAINS

- Organic nitrogen (N)
- High concentrations of phosphorus (P)
- Lamino acids

## HOW P-BOOST WORKS

- Stimulates the production of hormones, vitamins and proteins in the plant
- Stimulates bud formation, fructification and bud development
- Improves photosynthesis process
- Nutrients are organically chelated using L-amino acids

## TIPS FROM SUCCESSFUL GROWERS

- Increase P-Boost dosages during the cycle for even better results (see extreme schedule)
- P-Boost has acidifying characteristics and can be used as a pH down solution

# K-BOOST

## MATURATION BOOSTER

K-Boost is an organo-mineral maturation booster that contains L-amino acids combined with potassium (K) and sulphur trioxide (SO<sub>3</sub>). It stimulates the maturation process, improves yield and end quality.

### WHY USE K-BOOST?

- Stimulates fruit and bud maturation
- Improves crop quality
- 100% water soluble and leaves no residue
- High bioavailability
- Firm end product

### HOW TO USE K-BOOST

Use K-Boost from 5th week until the 7th week of flowering.  
Use 3 - 5 ml per 10 L of water.

Shake before use. Leaves no residue in the irrigation system.  
Fully water-soluble.





## K-BOOST CONTAINS

- Organic nitrogen (N)
- Potassium (K)
- Sulphur trioxide (SO<sub>3</sub>)
- L-amino acids

## HOW K-BOOST WORKS

- Organic nitrogen combined with potassium and L-amino acids stimulates plant maturation
- Potassium improves the water management in plants (osmoregulation)
- When potassium is deficient, stomata will not work properly and the plant loses water
- Potassium improves starch and protein synthesis
- Potassium regulates opening of the stomata and enzyme activity
- Sulphur is used in the maturation process and increases weight
- Nutrients are organically chelated using L-amino acids

## TIPS FROM SUCCESSFUL GROWERS

- Use K-Boost during the last 4 weeks for a compact and firm end product
- Use in combination with CaMg-Boost to bulk up weight and firmness and to help avoid antagonistic action between potassium (K) and magnesium (Mg)

# CaMg-BOOST

## BUD BOOSTER

CaMg-Boost is an organo-mineral plant booster that prevents calcium (Ca) and magnesium (Mg) deficiencies while stimulating powerful fruit set and development. CaMg-Boost is the key to a firm and high quality end product.

### WHY USE CaMg-BOOST?

- Provides organic nitrogen combined with calcium and magnesium and Lamino acids that stimulate plant development
- 100% water soluble and leaves no residue
- Combines calcium (Ca) and magnesium (Mg) with Lamino acids to eliminate deficiencies
- High bioavailability
- Improves structure and firmness of the flower and fruit
- Provides the extra boost plants need during certain plant development phases

### HOW TO USE CaMg-BOOST

In soil: Use CaMg-Boost once a week.

In coco/hydro: Use CaMg-Boost in combination with All-in-One Liquid every watering

When adding CaMg-Boost, do not use any boosters containing phosphorus other than Aptus.

Use 2,5 - 5 ml per 10 L of water:

Shake before use. Leaves no residue in the irrigation system.

Fully water-soluble.





## CaMg-BOOST CONTAINS

- Organic nitrogen (N)
- Calcium (Ca)
- Magnesium (Mg)
- Lamino acids

## HOW CaMg-BOOST WORKS

- Aids in plant structure and photosynthesis
- Improves structure and firmness of fruits and flowers
- Stimulates fruit set and floral development
- Activates enzymatic activity
- Higher levels of calcium and magnesium help raise internal plant pH to resist fungal attacks

## TIPS FROM SUCCESSFUL GROWERS

- Use CaMg-Boost in combination with P-Boost & K-Boost in the last weeks to get maximum weight
- Pay attention when you mix P-Boost and CaMg-Boost as they can react together. Always add one, dilute and mix then the other. In case you use a lot of phosphorus based products, then take care when adding CaMg-Boost as phosphorus and calcium mixed together in high concentrations may cause deposits and residues
- Add CaMg-Boost when using All-in-One Liquid on hydro or coco

# FULVIC-BLAST

COMPLETE MICROELEMENT BOOSTER

Fulvic-Blast is a complete microelement booster used to detoxify plants and combat microelement deficiencies. It is directly absorbed into the plant and improves the absorption of existing microelements. The mixture of low molecular fulvic acid, plant stimulants and microelements enhances the crop and its production.

## WHY USE **FULVIC-BLAST**?

- Stops microelement deficiencies
- Prevent nutritional imbalances
- Breaks down nutrient salts and helps remove heavy metals
- Fully organic microelement booster
- Very high chelating capacity

## HOW TO USE **FULVIC-BLAST**

Use Fulvic-Blast preferably once of a week throughout the cycle or at uncertain deficiencies. Use 3 ml per 10 L of water (1:3333).

Shake well before use. Leaves no residue in the irrigation system.  
Fully water-soluble.







## FULVIC-BLAST CONTAINS

- High-grade low molecular fulvic acid
- Plant stimulants
- Lamino acids

### Microelements in Fulvic-Blast

Iron (Fe)	Manganese (Mn)	Magnesium (Mg)
Zinc (Zn)	Sulphur (S)	Boron (B)
Chlorine (Cl)	Cobalt (Co)	Sodium (Na)
Nickel (Ni)	Vanadium (V)	Copper (Cu)
Molybdenum (Mo)		

## HOW FULVIC-BLAST WORKS

- Fulvic acid acts as a natural mineral chelator
- Stimulates the conversion of carbohydrates into sugar
- Balanced levels of essential microelements prevent deficiencies

## TIPS FROM SUCCESSFUL GROWERS

- Using Fulvic-Blast once a week prevents shortages, nutritional imbalance and mineral deficiencies during the plant life cycle

# HUMIC-BLAST

ORGANIC SOIL CONDITIONER

Humic-Blast is an organic soil conditioner that improves plants ability to absorb nutrients, balances the charge in mediums creating airy soil structure and improves water retention. Humic-Blast neutralizes build up of acids and salts in the medium freeing locked up nutrients. Humic-Blast is rich in carbon and potassium humates and is supplemented with natural plant hormones and microelements.

## WHY USE HUMIC-BLAST?

- Boosts the development of young plants
- Stimulates natural hormone production
- Organic soil conditioner
- Improves water retention
- Improves plant nutrient absorption capacity
- Detoxifying effect for heavy metals (heavy metals, chlorine compounds, aluminum and sodium)
- Allows safe medium reuse for multiple cycles

## HOW TO USE HUMIC-BLAST

Use Humic-Blast in the last two to three waterings.  
Use 3 ml per 10 L of water and for the last watering, use 6 ml per 10 L of water.

Shake well before use.





## HUMIC-BLAST CONTAINS

- Humic acid from the Leonardite layer
- Microlife biomass from controlled fermentation of selected strains (specific beneficials)
- Growth promoting L-amino acids
- Specific plant extracts

## HOW HUMIC-BLAST WORKS

- Humic acid stores nutrients until the plant is ready to absorb them from the medium
- Creates good soil structure by increasing water retention, balancing cation exchange capacity, breaking down salts and restoring soil structure
- Regulates the nutrient salts in the medium
- Humic acid in the medium stimulates and enhances microlife activity

## TIPS FROM SUCCESSFUL GROWERS

- Use to condition new growing medium before transplanting
- Add to the last two to three feedings, or if not possible, flush the final week with clean water and Humic-Blast. This prepares the medium or reuse in the next cycle

# MICROMIX SOIL & DRIP

## BENEFICIAL SOIL BORNE MICROLIFE

During the production process of growing substrates all microlife is destroyed/sterilized so that no harmful elements remain. The problem with this approach is that the beneficial elements are destroyed too. This makes the substrate more susceptible to pests and diseases. It is important to have a rich beneficial microlife in the substrate to prevent problems and to optimize growing conditions. Adding Micromix creates a rich beneficial soil life that offers optimal growing conditions in the substrate.

### WHY USE MICROMIX

- Protects the root system from harmful fungi and bacteria
- Stimulates rooting and growth processes
- 100% organic

### HOW TO USE MICROMIX

**Micromix Soil:** Mix through the substrate at 0,5 – 1 g per 1 L of soil or straw 1 g in each planthole before (trans-)planting. Optionally repeat treatment after 21 days using Micromix Drip

**Micromix Drip:** Mix 1 g per 1 L in the tank and stir the solution until Micromix is completely dissolved. Administer the solution to your plants. Optionally repeat treatment after 30 days.





## MICROMIX CONTAINS

Micromix comes in two types of powders: Soil & Drip. They both contain a mix of microorganisms and stimulants. The microorganisms are selected by their functions and specially treated to remain stable.

To extend the storage life of the mix special carriers have been used to protect and feed the microorganisms. This guarantees that the microorganisms have a stable and powerful effect directly after application.

## HOW MICROMIX WORKS

- Enzymes produced by beneficial bacteria decompose accumulated nutrient salts
- Healthy populations of beneficial microorganisms protect root systems from harmful microorganisms

## TIPS FROM SUCCESSFUL GROWERS

- Use Micromix during the growth phase to increase young plant survival and health
- Micromix can be used on all types of substrates

# MYCOR MIX

ENLARGES ROOT SYSTEM AND FACILITATES UPTAKE OF NUTRIENTS

Mycor Mix enlarges the root system and facilitates the uptake of nutrients. Mycor Mix contains a mix of various mycorrhizae species.

## WHY USE MYCOR MIX

- Enlarges the root system up to 700 times!
- Improves uptake of nutrients (especially phosphorus)
- 100% organic

## HOW TO USE MYCOR MIX

Add 1 g of Mycor Mix once before planting in the plant hole. Mycor Mix has then direct access to the root system.



## MYCOR MIX CONTAINS

Mycor Mix contains a mixture of various species of endomycorrhizae. There are more types of mycorrhizae besides endomycorrhizae, but only endomycorrhizae work for your crop. The mycorrhizae are fixed on a vegetal carrier that feeds and protects the fungi.

## HOW MYCOR MIX WORKS

Mycorrhizae are beneficial fungi that build colonies on the root system. The fine hyphae threads pass nutrients to the root systems and actually enlarge the surface from which plants can absorb nutrients.

The use of Mycor Mix gives visible results during the flowering phase because mycorrhizae increase the uptake of phosphorus. An increased uptake of phosphorus will result in bigger flowers and increased yield.

## TIPS FROM SUCCESSFUL GROWERS

- Inoculate new medium with Mycor Mix during transplant, especially near the established roots of your plants
- De-chlorinate tap water before using in growing medium or you will destroy established microorganism populations



# ALL-IN-ONE LIQUID

ONE LIQUID FOR ALL MEDIUMS

All-in-One Liquid is a 100% mineral based fertilizer suited for all mediums and systems. It can be used from the vegetative phase all the way through to flowering/maturation phase. The unique manufacturing process makes All-in-One Liquid not sensitive to pH-variations and therefore applicable in a wide pH-range.

## WHY USE ALL-IN-ONE LIQUID?

- Simple and easy to use 100% mineral NPK fertilizer
- Not sensitive to pH-variations (can be used in a wide pH-range)
- Economic in use at 1 to max. 2 ml per 1 L. all the way through
- Is fully soluble and suited for all wateringsystems (incl. recirculating systems)
- Can be used in all applications (soil, coco, rockwool, soil-less etc.)
- Made out of pure raw materials for optimum bioavailability and contains no ballast salts or chlorides
- As All-in-One Liquid contains no chlorides, it has no negative impact on microlife

## HOW TO USE ALL-IN-ONE LIQUID

All-in-One Liquid is a highly concentrated nutrient (1:1000). The standard dilution rate is 1 ml per 1 L. Because of the high concentration, All-in-One Liquid is cost effective to use.

- Use All-in-One Liquid every time you water your plants
- The measured rise in EC when dissolving All-in-One Liquid is a real EC-value as it contains no ballast salts and chlorides
- Under optimal conditions the dilution rate may be increased up to max. 2 ml per 1 L







## ALL-IN-ONE LIQUID CONTAINS

- Essential elements: nitrogen, phosphorus, potassium and magnesium.
- Microelements: boron, molybdenum, iron, manganese, zinc and copper

## HOW ALL-IN-ONE LIQUID WORKS

- The unique manufacturing process makes All-in-One Liquid easy to use as it is not sensitive to pH-changes and can be used in a wide pH-range
- On soil (peat) All-in-One Liquid is a complete base nutrient
- In hydro/ coco we advise to combine All-in-One Liquid with CaMg-Boost for best results. When combining CaMg-Boost with All-in-One Liquid it is wise to keep pH below 6,3 in order to prevent precipitation of calcium/magnesium

## TIPS FROM SUCCESSFUL GROWERS

- Always properly stir your solution when adding nutrients and respect the order of mixing according to the instruction on page 51
- For maximum plant development combine All-in-One Liquid with Regulator, Startbooster, Topbooster, Super-PK and CaMg-boost
- All-in-One Liquid can be used on a wide variety of crops. From root- and tubercrops to fruits, flowers and ornamental plants

# ALL-IN-ONE PELLET

## NUTRIENT PELLET

All-in-One Pellet is a time-released 100% organic pellet fertilizer that provides complete nutrition for plant development for up to 3 months. Each application lasts 2 - 3 months and can be reapplied for longer cycles. It is specially formulated with macronutrients and micronutrients, L-amino acids and biostimulants to enhance plant development over a period of time. All-in-One Pellet can be applied during transplanting or soil preparation directly into the soil or as a top dressing to extend the growing cycle.

## WHY USE ALL-IN-ONE PELLET?

- Simple and complete 100% organic plant nutrition
- Nothing else but water is required
- Time-release complete granular mix-in or top dressing fertilizer
- Complete formulation reduces fertilizer needs
- Easy to use – application once every 2 - 3 months
- Perfect for remote locations and long lasting crop cycles
- Helps condition soil, improves plant development and stimulates microflora
- Long shelflife if properly stored

## HOW TO USE ALL-IN-ONE PELLET

### Possible applications:

- Mix pellets into the medium prior to planting
- Place pellets at the bottom of every planthole
- Mix pellets into the top of soil and water from the top

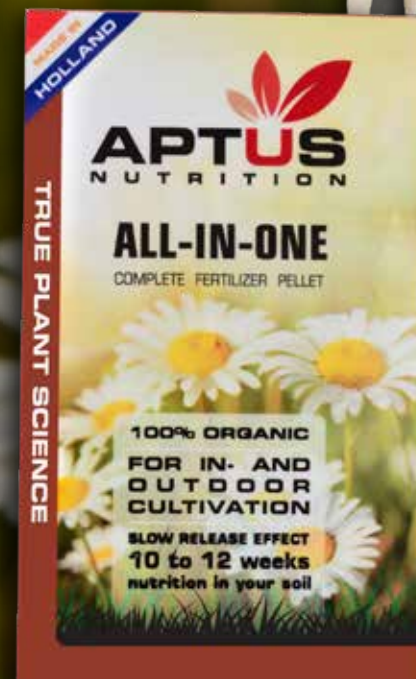
### For short cultivation (3 months)

Peat: Use 50 - 100 g per plant per cycle

Clay or heavy soil: Use 100 g per plant per cycle

Coco or sandy soil: Use 200 g per plant per cycle

If your cycle is longer than 3 months, apply a second treatment (after 2 months) as topdressing or mix pellets into the top 5 cm (2 inches) of soil and water from the top.



## ALL-IN-ONE PELLET CONTAINS

- Compounded NPK fertilizer with magnesium (Mg) and sulphur (S)
- Organically chelated microelements such as boron (B), iron (Fe), manganese (Mn), zinc (Zn)
- L-amino acids



## HOW ALL-IN-ONE PELLET WORKS

- Provides complete time-released nutrition for plants for 2 - 3 months
- L-amino acids stimulate natural plant processes and growth
- Complete nutrient profile minimizes plant stress due to environment, pests, and pathogens

## TIPS FROM SUCCESSFUL GROWERS

- Add Micromix when transplanting for the perfect start
- In case of deficiencies, add pulverised pellets as topdressing for quicker absorption and water from the top. The pellets will be solubilized and the nutrients assimilated by the plant
- For better effect outdoors, use with Regulator, Startbooster and NutriSpray
- For better effect indoor in pots, use with Regulator, Startbooster, Topbooster, P-Boost, K-Boost and CaMg-boost
- Store in a cool, dry place. Can last up to 3 years in proper storage

# HOW to mix your Aptus nutrients

## STEP 1

Fill your reservoir with clean, fresh water



## STEP 2

Add Regulator and mix properly\*



## STEP 3

Add N/P/K/CaMg-Boost and mix in between\*\*



## STEP 4

Check EC/PPM levels



## STEP 5

Add base NPK fertilizer until desired EC is reached\*\*



## STEP 6

Add Startbooster and mix\*\*



## OR STEP 6

Add Topbooster and mix\*\*



## STEP 7

Check the pH and adjust to 5,8 (hydro/coco) or 6,2 (soil)



## STEP 8

Handwatering small scale



Handwatering large scale



Automatic drippers



Fully automatic PCS-system



\* Extremely important to do this first and mix very well

\*\* Use clean measuring instruments for every product you add to avoid contamination

**ATTENTION:** If you leave the solution for more than 3 days, biofilm may build up and potentially clog drip lines in hydro systems.

# URBAN AGRICULTURE

## WHY URBAN AGRICULTURE?

Nothing is more important than the quality and nutrition of our food supply. Modern society is disconnected from the production of the food we consume. Farm modernization, soil mineral depletion, government regulation, urban sprawl and poor understanding of plant health are destroying the fabric of what allows us to live.

Urban Agriculture is a worldwide movement to bring the production of food closer to the point of consumption and give the power of true health back to the average person.

## BENEFITS OF URBAN AGRICULTURE

- **Grow your own vitamins and minerals**
- **Achieving a higher nutritional value**
- **Lower nitrate concentrations in the end product**
- **Growing your own food according to nature's way**
- **Healthier plants for healthier people**
- **Sharing education so anyone can participate**
- **Raising awareness concerning the food we consume**
- **Longer shelf life, less waste**



Aptus is at the forefront of the Urban Agriculture movement. We create and supply all-natural plant nutrition products that allow you to grow your own food the way nature intended.

## NUTRIENT SCHEDULE - BASIC

	VEG	FLOWER			FLUSH
		EARLY	LATE	MATURATION	
<b>Water</b>	10L	10L	10L	10L	10L
<b>Regulator</b>	1,5ml	1,5ml	1,5ml	1,5ml	
<b>Super-PK</b>		2,5ml	5ml		
<b>K-Boost</b>			5ml	5ml	
<b>EC check</b>	Check your EC				
<b>All-in-One Liquid*</b>	10ml	12,5ml	12,5ml	12,5ml	
<b>Startbooster</b>	2,5ml	2,5ml**			
<b>Topbooster</b>		2ml	2ml	2ml	
<b>pH-check</b>	pH-check – pH 5,8 – 6,2				

\* Or use another liquid base NPK

\*\* Use Startbooster only for the first watering in early flower

▶ continuous  
▼ periodic

## NUTRIENT SCHEDULE - PRO

	VEG	FLOWER			FLUSH
		EARLY	LATE	MATURATION	
<b>Water</b>	10L	10L	10L	10L	10L
<b>Regulator</b>	1,5ml	1,5ml	1,5ml	1,5ml	
<b>P-Boost</b>		5ml	5ml		
<b>CaMg-Boost***</b>	2,5ml	2,5ml	2,5ml	2,5ml	
<b>K-Boost</b>			5ml	5ml	
<b>EC check</b>	Check your EC				
<b>All-in-One Liquid*</b>	10ml	12,5ml	12,5ml	12,5ml	
<b>Startbooster</b>	2,5ml	2,5ml**			
<b>Topbooster</b>		2ml	2ml	2ml	
<b>pH-check</b>	pH-check – pH 5,8 – 6,2				

\* Or use another liquid base NPK

\*\* Use Startbooster only for the first watering in early flower

\*\*\* Use CaMg-Boost once a week on soil and every watering on hydro/coco

▶ continuous  
▼ periodic

Note for all Feeding Schedules:

Development stages and dosages depend on crop and growing methods

## NUTRIENT SCHEDULE - EXTREME

	VEG	FLOWER			FLUSH
		EARLY	LATE	MATURATION	
<b>Water</b>	10L	10L	10L	10L	10L
<b>Regulator</b>	1,5ml	1,5ml	1,5ml	1,5ml	
<b>P-Boost</b>		6ml	8ml		
<b>CaMg-Boost***</b>	5ml	5ml	5ml	5ml	
<b>K-Boost</b>			5ml	10ml	
<b>EC check</b>	Check your EC				
<b>All-in-One Liquid*</b>	10ml	12,5ml	12,5ml	12,5ml	
<b>Startbooster</b>	2,5ml	2,5ml**			
<b>Topbooster</b>		2,5ml	3ml	4ml	
<b>pH-check</b>	pH-check – pH 5,8 – 6,2				

\* Or use another liquid base NPK

\*\* Use Startbooster only for the first watering in early flower

\*\*\* Use CaMg-Boost once a week on soil and every watering on hydro/coco

NOTE: Only use nutrient schedule "Extreme" on healthy and vital plants

▲ continuous  
▼ periodic

## IF NECESSARY

	VEG	FLOWER			FLUSH
		EARLY	LATE	MATURATION	
<b>Water</b>	10L	10L	10L	10L	10L
<b>N-Boost</b>	5ml	5ml			
<b>Enzym+</b>	5ml	5ml	5ml	5ml	10ml*
<b>System-Clean</b>		2,5ml	2,5ml	2,5ml	
<b>NutriSpray**</b>	2ml	2ml	2ml	2ml	
<b>Humic-Blast</b>				3ml	6ml*

\* When reusing medium, add these products for the last two waterings

\*\* Spray → 2ml per Liter

▲ continuous  
▼ periodic

- HIGHLY CONCENTRATED FORMULAS
- 100% ACTIVE INGREDIENTS
- FULLY ORGANIC AND ORGANO-MINERAL
- NO ARTIFICIAL OR SYNTHETIC INGREDIENTS
- BUILT TO MIMIC NATURAL BIOLOGIC PROCESSES
- RESULTS LIKE YOU'VE NEVER SEEN



IN BALANCE WITH NATURE

### ADDITIONAL EDUCATION AND TECHNICAL SUPPORT

In order to better educate growers, **APTUS EDUCATION** is an ideal way to get more insight in plant nutrition and stimulation. Growers who join the APTUS Family are more successful, more engaged with their store and more fanatical about their gardens.

Product knowledge and application are the key to success and ensure satisfied and loyal customers. If you want to experience the education and service of a world class plant nutrition company, contact us so that we can inform and train you properly.

Please schedule a meeting so that we can discuss your options.

Inquiries: [info@aptus-holland.com](mailto:info@aptus-holland.com)



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