



Product Guide



Award winning plant feeding!

Mineral Line

Our Product

Our mission	p. 4
Mineral Line	p. 5
Grow	p. 6
Short Flowering	p. 7
Hybrids	p. 8
Long Flowering	p. 9
Booster	p. 10-11
Calcium	p. 12

How to use

Introduction / Example of schedule	p. 13
------------------------------------	-------

Soil feeding schedule - Professional grower

Soil - Short Flowering	p. 14
Soil - Hybrids	p. 15
Soil - Long Flowering	p. 16

Coco feeding schedule - Professional grower

Coco - Short Flowering	p. 17
Coco - Hybrids	p. 18
Coco - Long Flowering	p. 19

Rockwool feeding schedule - Commercial grower

Rockwool commercial schedule	p. 20-21
The “Keep it Simple” feeding schedule	p. 22-23

Bio Line

Our Product

Our products	p. 26
Bio Line	p. 27
BioGrow	p. 29
BioBloom	p. 30
BioEnhancer	p. 31

How to use

BioGrow, BioBloom and BioEnhancer	p. 32
Dosing Graphics Indoor & Outdoor	p. 33-34

Keep it simple![®]

Our Mission

Green House Feeding has the objective to provide cultivators globally with the highest quality plant nutrients enabling them to achieve unprecedented results by allowing plants to develop to their full genetic potential.

Not only creating highly efficient products but also simplifying the application of nutrients.

Our mineral products are created in powder form which ensures they are easier to use, store, transport and have a longer shelf life than liquid plant nutrients.

The main ingredients used to formulate our nutrients are sourced in Germany and Switzerland. These countries have some of the highest quality standards worldwide.

Our products do not contain PGR's, impurities and have the lowest possible concentrations of heavy metals.

Using only the highest quality minerals allows us to provide the purest, most efficient, highly concentrated nutrients in powder form while being able to guarantee 100% solubility.

Our mineral plant nutrients retain their EC & pH-value for at least one week after mixing. Highly concentrated stock solutions can even be kept for several months.

All our products are in compliance with CE regulations 889/2008 and 2003/2003.

Mineral Line

Powder Feeding Line



Grow
N-P-K: 24 - 6 - 12



short Flowering
N-P-K: 16 - 6 - 26



Hybrids
N-P-K: 15 - 7 - 22



long Flowering
N-P-K: 18 - 12 - 18

Additive Feeding Line



Booster PK+
N-P-K: 0 - 30 - 27



Calcium (Chelated)
N-P-K: 6 - 0 - 0



1.1lb
2.2lb
5.5lb
55lb

500g
1kg
2.5kg
25kg

1.1lb
2.2lb
5.5lb
55lb

500g
1kg
2.5kg
25kg

Grow

Designed specifically for the vegetative growth-stage of all plants. Its formula provides optimum development throughout the growth-stage to obtain greener, stronger and more resistant plants. The grow formula is ideal for the production of mother plants and cuttings. It can also be used very effectively as foliar feeding. The fast assimilation of nutrients and the high Nitrogen content provides plants with a more robust and branched structure as well as thicker leaves. Thicker leaves accumulate more nutrient reserves, stimulating rapid rooting of cuttings.

Maximum Solubility: 1.3lb/gal or 160g/L water
Recommended amount for stock solution: 4oz/gal or 30g/L water



GUARANTEED ANALYSIS

Total Nitrogen [N]	24%
13% Nitrate Nitrogen	
11% Ammoniacal Nitrogen	
Available Phosphate [P ₂ O ₅]	6%
Soluble Potash [K ₂ O]	12%
Magnesium [Mg]	1.2%
Sulfur (S)	1.3%
1.3% combined sulfur (S)	
Boron [B]	0.01%
Iron [Fe]	0.1%
0.1% chelated Iron (Fe)	
Manganese [Mn]	0.05%
0.05% chelated Manganese [Mn]	
Molybdenum [Mo]	0.007%

DID YOU KNOW?

Nitrogen plays a pivotal role in many critical plant functions such as photosynthesis and protein production. During the vegetative stage, plants require more nitrogen than during the flowering stage. Plants utilize nitrogen in the form of nitrate nitrogen and ammoniacal nitrogen, both forms of nitrogen are present in a form that can immediately be taken up by the plant. Lack of nitrogen results in stunted growth, yellowing of leaves and loss of proteins.



short Flowering

Plants with a short flowering time of 8 weeks or less need higher amounts of instantly available potassium, in the early stages, to produce more and heavier fruits and flowers in a shorter period of time.

Maximum Solubility: 1.3lb/gal or 160g/L water
Recommended amount for stock solution: 4oz/gal or 30g/L water



GUARANTEED ANALYSIS

Total Nitrogen [N]	16%
11% Nitrate Nitrogen	
5% Ammoniacal Nitrogen	
Available Phosphate [P ₂ O ₅]	6%
Soluble Potash [K ₂ O]	26%
Magnesium [Mg]	2%
Sulfur (S)	2.1%
2.1% combined sulfur (S)	
Boron [B]	0.01%
Iron [Fe]	0.1%
0.1% chelated Iron (Fe)	
Manganese [Mn]	0.05%
0.05% chelated Manganese [Mn]	
Molybdenum [Mo]	0.002%

DID YOU KNOW?

Potassium is needed in large amounts and plays a major role in the plants metabolism. It regulates the CO2 uptake, is essential for the production of the energy source for photosynthesis and helps regulate the nutrient and water uptake. Lack of Potassium results in stunted growth, less water circulation, uneven ripening of fruits and makes the plant more subject to environmental stress.



1.1lb
2.2lb
5.5lb
55lb



500g
1Kg
2.5Kg
25Kg

1.1lb
2.2lb
5.5lb
55lb



500g
1Kg
2.5Kg
25Kg

Hybrids

The Hybrids feeding contains less ammoniacal nitrogen and higher amounts of magnesium which is beneficial for Hybrid varieties with a flowering time of 8-10 weeks and plants grown in hydroponic systems. The higher amount of magnesium and sulfate stimulates the production of essential oils, terpenes and flavonoids.

Maximum Solubility: 1.3lb/gal or 160g/L water

Recommended amount for stock solution: 4oz/gal or 30g/L water



GUARANTEED ANALYSIS

Total Nitrogen [N]	15%
10% Nitrate Nitrogen	
5% Ammoniacal Nitrogen	
Available Phosphate [P ₂ O ₅]	7%
Soluble Potash [K ₂ O]	22%
Magnesium [Mg]	3.0%

Sulfur (S)	4.0%
4.0% combined sulfur (S)	
Boron [B]	0.02%
Iron [Fe]	0.1%
0.1% chelated Iron (Fe)	
Manganese [Mn]	0.03%
0.03% chelated Manganese [Mn]	
Molybdenum [Mo]	0.003%

N-P-K: 15-7-22

DID YOU KNOW?

Similar to N and K, Magnesium plays a major role in chlorophyll production and photosynthesis. It also aids in the activation of enzymes and promotes protein synthesis. Lack of Magnesium results in stunted growth, which is visible as yellowing between leaf veins. Magnesium uptake can also be blocked by excess of other elements such as Calcium, Potassium or Sodium.

long Flowering

The balanced NPK ratio provides enough nitrogen throughout the whole stage of flowering and the high amounts of phosphorous allow the plants to develop a strong and healthy root system, especially for plants with a long flowering time more than 10 weeks.

Maximum Solubility: 1.3lb/gal or 160g/L water

Recommended amount for stock solution: 4oz/gal or 30g/L water



GUARANTEED ANALYSIS

Total Nitrogen [N]	18%
10% Nitrate Nitrogen	
8% Ammoniacal Nitrogen	
Available Phosphate [P ₂ O ₅]	12%
Soluble Potash [K ₂ O]	18%
Magnesium [Mg]	1.2%

Sulfur (S)	1.3%
1.3% combined sulfur (S)	
Boron [B]	0.01%
Iron [Fe]	0.1%
0.1% chelated Iron (Fe)	
Manganese [Mn]	0.04%
0.04% chelated Manganese [Mn]	
Molybdenum [Mo]	0.003%

N-P-K: 18-12-18

DID YOU KNOW?

Boron, being one of the trace elements is only needed in tiny amounts, but it is essential for plant functions such as the formation of pollen tubes, balancing the amounts of sugar and starch inside the plant and helping to transport Potassium ions inside the cell membranes. Boron is not mobile in plants because it bonds to sugar molecules.



1.1lb
2.2lb
5.5lb
55lb



500g
1Kg
2.5Kg
25Kg

Booster PK+

This additive is especially formulated to provide adequate amounts of Phosphorus, Potassium, Magnesium and micronutrients to increase the resin production and the formation and density of flowers.

The combination of Green House Powder Feeding, Calcium and Booster creates very professional, plant-specific line of nutrients for healthy and productive plants.

We added extra magnesium and trace elements to our PK Booster to avoid that they limit the uptake of phosphorus and potassium if the ratios are not balanced.

Plants can only perform to their full genetic potential if all elements are sufficiently available.

Maximum Solubility: 2.0lb/gal or 250g/L water
Recommended amount for stock solution: 4oz/gal or 30g/L water



GUARANTEED ANALYSIS

Available Phosphate [P ₂ O ₅]	30%
Soluble Potash [K ₂ O]	27%
Magnesium [Mg]	5%
Sulfur (S)	9.0%
9% Combined Sulfur	
Boron (B)	0.02%
Iron (Fe)	0.1%
0.1% Chelated Iron	
Molybdenum (Mo)	0.004%

0-30-27 NPK+

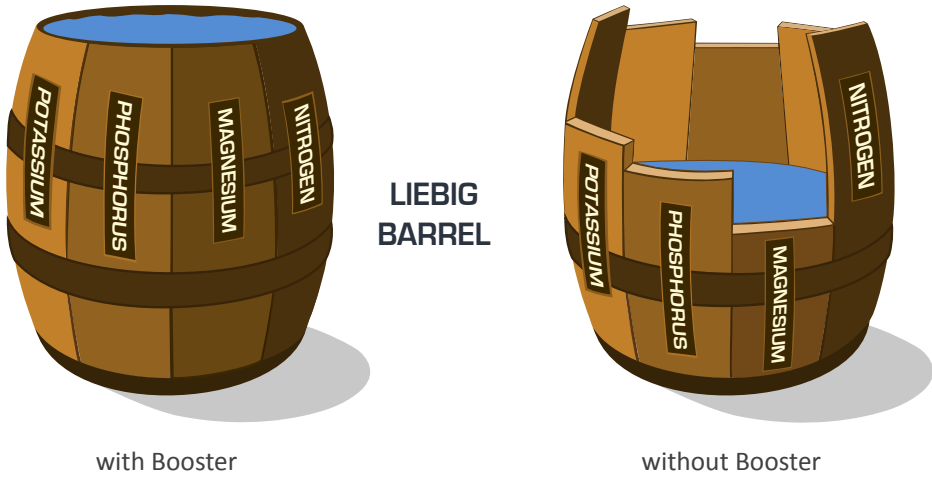


DID YOU KNOW?

Balanced plant nutrition is essential to achieve high yields. If one of the essential plant nutrients is deficient, plant growth is limited to the amount of the lowest available nutrient, even when all other essential nutrients are abundant. Furthermore, even if the least used nutrient is not present, the plant will not be able to take in all the other available nutrients, indicating that the elements used in trace amounts are as essential as the macro-nutrients.

The ‘Liebig barrel’ is used to demonstrate this principle.

The availability of the most abundant nutrient in the soil is only as good as the availability of the least abundant nutrient in the soil.



Our Booster contains not only Phosphorus (P) and Potassium (K) but also extra Magnesium (Mg) and trace elements to ensure the nutrient content is balanced and there is no lack of any element that might limit the uptake of others.



1.1lb
2.2lb
5.5lb
55lb

500g
1Kg
2.5Kg
25Kg



Calcium (Chelated)

This additive should be used in situations in which the amount of calcium present in the water is below the recommended values.

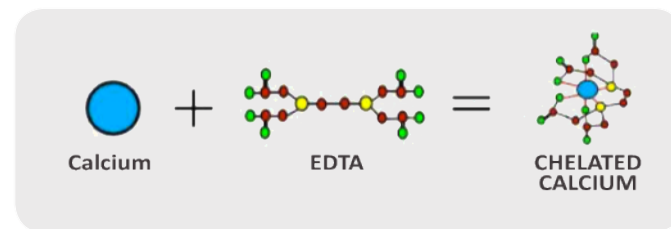
Our Calcium is chelated by EDTA - This product is very stable and does not interact with other elements.

Calcium is essential for growing a healthy crop. It strengthens the cell walls and structure of the plant.

Our chelated Calcium prevents and corrects deficiencies which are caused due to a lack of/or imbalance in the assimilation of Calcium.

Maximum Solubility: 2.5lb/gal or 300g/L water

Recommended amount for stock solution: 12oz/gal or 90g/L water



INDICATION FOR THE USE OF CALCIUM

R/O and very soft > Recommended Values
Soft > 50-80% of recommended values
Moderately Hard > 10-50% of recommended values
Hard Water > No Calcium required

DID YOU KNOW?

Most of the micronutrients (inorganic metals) can be chelated, which allows them to remain available for the plant, even if the environmental conditions are not ideal. EDTA is the most common and stable form of chelation.

Nitrogen is a part of the EDTA molecule, but this nitrogen is not available for the plant.



R/O System

If you use R/O water, it is necessary to supplement with calcium.
*Please check your R/O system regularly (maintenance)

Calcium [Ca]

How to use/Example table

INTRODUCTION:

The life cycle of a plant can be divided in two main stages, the vegetative growth period and the flowering period.

Both stages can be subclassified into different stages with different needs.

VEGETATIVE GROWTH PHASE:

- 1.) Seedling stage (< 6")
- 2.) Young plant & rooted cuttings (6-10")
- 3.) Maturing plant (10-14")
- 4.) Mature plant (>14")

FLOWERING PHASE:

- 1.) Pre-flowering / Transition to flowering (week 1-3)
- 2.) Flower formation and growth (week 3-6)
- 3.) Ripening of flowers (week 7+)

	Stages of the vegetative growth				Stages of the flowering cycle									EXAMPLE TABLE
	Seedlings (< 6")	Young plants / rooted cuttings (6-10")	Maturing plants (10-14")	Mature plants (>14")	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	
shortFlowering														
Grow / Short Flowering (g/gal)	2.1	2.3	2.5	2.6	3.0	3.0	2.6	2.3	2.3	1.9	1.9	1.5	FLUSH	
EC (mS/cm)	0.8	0.9	1.0	1.0	1.1	1.1	1.0	0.8	0.8	0.7	0.7	0.6	0.0	
TDS (ppm)	412	449	487	524	559	559	489	419	419	349	349	280	0	
Booster PK+ (g/gal)							0.8	1.3	1.5	1.9	2.3	1.9	FLUSH	
EC (mS/cm)							0.2	0.3	0.4	0.5	0.6	0.5	0.0	
TDS (ppm)							100	175	200	250	300	250	0	
Calcium (g/gal)	1.9	3.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.9	4.9	3.0	FLUSH	
EC (mS/cm) Calcium	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.3	0.0	
TDS (ppm) Calcium	100	160	200	200	200	200	200	200	200	260	260	16	0	
EC total (mS/cm)	1.0	1.2	1.4	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.8	1.4	0.0	
TDS total (ppm)	512	609	687	724	759	759	789	794	819	859	909	546	0	

Amount of Nutrients per gallon water

Total EC/TDS values of the Nutrient Solution

EC/TDS Values of each product

*Hanna TDS (500ppm = 1,0 mS/cm)

IMPORTANT!

- The values in the following tables are calculated using water with EC 0.0
- The pH value may decrease depending on water quality and temperatures.
- When adding Calcium the PH values may increase depending on water quality and temperatures
- Do not use CalMag with our mineral line. Calcium Nitrate is partly incompatible with Monopotassium Phosphate and Magnesium Sulfate and may result in formation of gypsum, clogging pipes or creating deficiencies
- Our mineral plant nutrients do not contain calcium, which means that if you use very soft water, rainwater or osmotic water, calcium needs to be added
- Keep the nutrient solution between 65 - 72 degrees F
- Control the EC of the runoff and flush if it's higher than EC 2.5 (1250ppm)
- For best results maintain a pH value between:
 - > Soil: 6.0-6.5
 - > Hydro/Coco: 5.8-6.2
 - > Rockwool: 5.5-6.0

Feeding Schedule | Professional Grower



shortFlowering		Growing				Flowering								
		Seedlings ($< 6''$)	Young plants / rooted cuttings (6-10'')	Maturing plants (10-14'')	Mature plants ($>14''$)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Grow / Short Flowering (g/gal)		2.1	2.3	2.5	2.6	3.0	3.0	2.6	2.3	2.3	1.9	1.9	1.5	FLUSH
EC (mS/cm)		0.8	0.9	1.0	1.0	1.1	1.1	1.0	0.8	0.8	0.7	0.7	0.6	0.0
TDS (ppm)		412	449	487	524	559	559	489	419	419	349	349	280	0
Booster PK+ (g/gal)								0.8	1.3	1.5	1.9	2.3	1.9	FLUSH
EC (mS/cm)								0.2	0.3	0.4	0.5	0.6	0.5	0.0
TDS (ppm)								100	175	200	250	300	250	0
Calcium (g/gal)		1.9	3.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.9	4.9	3.0	FLUSH
EC (mS/cm) Calcium		0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.3	0.0
TDS (ppm) Calcium		100	160	200	200	200	200	200	200	200	260	260	16	0
EC total (mS/cm)		1.0	1.2	1.4	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.8	1.4	0.0
TDS total (ppm)		512	609	687	724	759	759	789	794	819	859	909	546	0

Feeding Schedule | Professional Grower



Hybrids	Growing				Flowering									
	Seedlings (< 6")	Young plants / rooted cuttings (6-10")	Maturing plants (10-14")	Mature plants (>14")	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Grow / Hybrids (g/gal)	2.1	2.3	2.5	2.6	3.0	3.0	2.3	2.3	2.3	1.9	1.9	1.9	1.5	FLUSH
EC (mS/cm)	0.8	0.9	1.0	1.0	1.1	1.1	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.0
TDS (ppm)	412	449	487	524	559	559	419	419	419	349	349	349	280	0
Booster PK+ (g/gal)							1.3	1.3	1.5	1.9	1.9	2.3	1.9	FLUSH
EC (mS/cm)							0.3	0.3	0.4	0.5	0.5	0.6	0.5	0.0
TDS (ppm)							175	175	200	250	250	300	250	0
Calcium (g/gal)	1.9	3.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.9	4.9	4.9	3.0	FLUSH
EC (mS/cm) Calcium	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.3	0.0
TDS (ppm)Calcium	100	160	200	200	200	200	200	200	200	260	260	260	160	0
EC total (mS/cm)	1.0	1.2	1.4	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.8	1.4	0.0
TDS total (ppm)	512	609	687	724	759	759	794	794	819	859	859	909	689	0

Feeding Schedule | Professional Grower



longFlowering	Growing				Flowering												
	Seedlings ($< 6''$)	Young plants / rooted cuttings (6-10'')	Maturing plants (10-14'')	Mature plants ($> 14''$)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Grow / Long Flowering (g/gal)	2.1	2.3	2.5	2.6	3.0	3.0	2.6	2.5	2.3	2.3	1.9	1.9	1.5	1.5	1.5	1.5	FLUSH
EC (mS/cm)	0.8	0.9	1.0	1.0	1.1	1.1	1.1	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.0
TDS (ppm)	412	449	487	524	559	559	489	454	419	419	349	349	280	280	280	280	0
Booster PK+ (g/gal)							0.8	1.1	1.3	1.7	1.9	2.3	2.6	2.6	2.3	1.9	FLUSH
EC (mS/cm)							0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.6	0.5	0.0
TDS (ppm)							100	150	175	225	250	300	349	349	300	250	0
Calcium (g/gal)	1.9	3.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.9	4.9	3.8	3.8	3.8	3.0	FLUSH
EC (mS/cm) Calcium	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.3	0.0
TDS (ppm) Calcium	100	160	200	200	200	200	200	200	200	200	260	260	260	200	200	160	0
EC total (mS/cm)	1.0	1.2	1.4	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.8	1.8	1.7	1.6	1.4	0.0
TDS total (ppm)	512	609	687	724	759	759	789	804	794	844	859	909	889	829	779	689	0

Feeding Schedule | Professional Grower



shortFlowering		Growing				Flowering								
		Seedlings ($\leq 6''$)	Young plants / rooted cuttings (6-10'')	Maturing plants (10-14'')	Mature plants ($>14''$)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Grow / Short Flowering (g/gal)		2.3	2.5	2.8	2.8	3.2	3.2	2.6	2.6	2.3	2.1	1.9	1.5	FLUSH
EC (mS/cm)		0.9	1.0	1.1	1.1	1.2	1.2	1.0	1.0	0.8	0.8	0.7	0.6	0.0
TDS (ppm)		449	487	562	562	594	594	489	489	419	384	349	280	0
Booster PK+ (g/gal)								1.1	1.3	1.7	1.9	2.3	1.9	FLUSH
EC (mS/cm)								0.3	0.3	0.4	0.6	0.6	0.5	0.0
TDS (ppm)								150	175	225	250	300	250	0
Calcium (g/gal)		1.9	3.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.9	4.9	3.0	FLUSH
EC (mS/cm) Calcium		0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.3	0.0
TDS (ppm)Calcium		100	160	200	200	200	200	200	200	200	260	260	160	0
EC total (mS/cm)		1.1	1.3	1.5	1.5	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.4	0.0
TDS total (ppm)		549	647	761	761	794	794	839	864	844	894	909	689	0

Feeding Schedule | Professional Grower



Hybrids	Growing				Flowering									
	Seedlings (< 6")	Young plants / rooted cuttings (6-10")	Maturing plants (10-14")	Mature plants (>14")	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Grow / Hybrids (g/gal)	2.3	2.5	2.8	2.8	3.2	3.2	2.6	2.6	2.3	2.1	1.9	1.9	1.5	FLUSH
EC (mS/cm)	0.9	1.0	1.1	1.1	1.2	1.2	1.0	1.0	0.8	0.8	0.7	0.7	0.6	0.0
TDS (ppm)	449	487	562	562	594	594	489	489	419	384	349	349	280	0
Booster PK+ (g/gal)							1.1	1.3	1.7	1.9	2.3	2.3	1.9	FLUSH
EC (mS/cm)							0.3	0.3	0.4	0.5	0.6	0.6	0.5	0.0
TDS (ppm)							150	175	225	250	300	300	250	0
Calcium (g/gal)	1.9	3.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.9	4.9	4.9	3.0	FLUSH
EC (mS/cm) Calcium	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.3	0.0
TDS (ppm) Calcium	100	160	200	200	200	200	200	200	200	260	260	260	160	0
EC total (mS/cm)	1.1	1.3	1.5	1.5	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.4	0.0
TDS total (ppm)	549	647	761	761	794	794	839	864	844	894	909	909	689	0

Feeding Schedule | Professional Grower



longFlowering		Growing				Flowering												
		Seedlings ($<6''$)	Young plants / rooted cuttings (6-10'')	Maturing plants (10-14'')	Mature plants ($>14''$)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Grow / Long Flowering (g/gal)		2.3	2.5	2.8	2.8	3.0	3.0	2.6	2.5	2.3	2.3	1.9	1.9	1.5	1.5	1.5	1.5	FLUSH
EC (mS/cm)		0.9	1.0	1.1	1.1	1.1	1.1	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.0
TDS (ppm)		449	487	562	562	559	559	489	454	419	419	349	349	280	280	280	280	0
Booster PK+ (g/gal)								0.8	1.1	1.3	1.7	1.9	2.3	2.6	2.6	2.6	1.9	FLUSH
EC (mS/cm)								0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.6	0.5	0.0
TDS (ppm)								100	150	175	225	250	300	349	349	300	250	0
Calcium (g/gal)		1.9	3.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.9	4.9	4.9	3.8	3.8	3.0	FLUSH
EC (mS/cm) Calcium		0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.3	0.0
TDS (ppm) Calcium		100	160	200	200	200	200	200	200	200	200	260	260	260	200	200	160	0
EC total (mS/cm)		1.1	1.3	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.8	1.8	1.7	1.6	1.4	0.0
TDS total (ppm)		549	647	761	761	759	759	789	804	794	844	859	909	889	825	779	689	0

Feeding Schedule | Commercial Grower

Rockwool

VEGETATIVE:

Grow 113g/Gal + Calcium 170g/Gal

DOSAGE FOR INJECTORS:

1.90% = Ratio 1:53 = EC 1.2mS/cm.

2.22% = Ratio 1:45 = EC: 1.4mS/cm.

FLOWER:

Hybrids 56.7g/Gal + Booster 28.4g/Gal + Calcium 98g/Gal

DOSAGE FOR INJECTORS:

3.85% = Ratio 1:26 = EC: 1.5 mS/cm

WARNING!

We recommend to flush if the run off EC is higher than 2.0 in flowering and 1.8 in growth. The stock solution is mixed at 77 degrees Fahrenheit. When mixing several nutrients together we advise to let the solution sit for 24 hours and to either shake it several times or run a circulation pump / air stone to ensure no precipitation occurs.



Feeding Schedule | Commercial Grower



Hybrids	Growing				Flowering									
	Seedlings ($< 6''$)	Young plants / rooted cuttings (6-10'')	Maturing plants (10-14'')	Mature plants ($>14''$)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Grow / Hybrids (g/gal)	2.3	2.5	2.8	2.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	FLUSH
EC (mS/cm)	0.9	0.9	1.1	1.1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
TDS (ppm)	456	487	562	562	407	407	407	407	407	407	407	407	407	0
Booster PK+ (g/gal)					1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	FLUSH
EC (mS/cm)					0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0
TDS (ppm)					150	150	150	150	150	150	150	150	150	0
Calcium (g/gal)	2.6	3.0	3.4	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	FLUSH
EC (mS/cm) Calcium	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
TDS (ppm) Calcium	137	159	180	201	200	200	200	200	200	200	200	200	200	0
EC total (mS/cm)	1.2	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.0
TDS total (ppm)	593	645	741	762	757	757	757	757	757	757	757	757	757	0

Keep it simple!

If a range of values is mentioned (e.g. 5-7g/10L), it means that the first value is used to start with and should be increased every week until the final value is reached.

Metric/Imperial: 5-7g/2.5 US gallons water

Metric/Imperial: 2-5g/2.5 US gallons water

	Grow, SFL, Hybrids, LFL	Booster	Calcium
Dosing spoon approx.:	10g	13g	8g
Table spoon approx.:	4g	5g	3g

Notes

Bio Feeding Line



Our products

Bio Feeding is our nutrient line, developed to be used for organic farming.

Bio Feeding products are a 100% biological blend of natural-minerals and organic nutrients, which provide all essential macro- and micro nutrients and promote the microbial life in the soil, helping to establish a healthy soil-food-web.

We decided to create powdered products, because a finer product creates a bigger surface that comes in contact with the soil microbial life, resulting in more efficient nutrient uptake compared to tablets or pellets.

The organic raw materials used in our Bio Feeding products are sourced in Germany and Switzerland and are all Non-GMO (Not Genetically Modified Organism).

Beneficial microbes that occur naturally in the raw ingredients (e.g. malt germs, canola meal & vinasse) help to decompose the organic matter converting it into a mineral form and releasing nutrients that are readily available for the plant.

The microbial activity of the soil is improved by supplying components that can form humus.*

The raw ingredients used by themselves are not always the best plant nutrition.

It is the combination of specific ingredients that creates a highly effective fertilizer.

*This process depends on the conditions of the soil (e.g. humidity, temperature, pH-value, microbial activity, organic matter content, etc.).

Certification

All Bio Feeding products are Control Union Certified for use in organic agriculture. Control Union Certifications, which is part of the Control Union World Group, is monitoring products that are used in organic agriculture (Organic Input Products). Organic input products can not contain any synthetic nutrients, chemical pesticides or other non-natural ingredients.

The use of the certification is subject to strict rules and only permitted with authorization of Control Union.

Our BioGrow and BioEnhancer are OMRI listed. OMRI supports organic integrity by developing clear information and guidance about materials, so that producers know which products are appropriate for organic operations. OMRI is a nonprofit organization that provides an independent review of products, such as fertilizers, pest controls, livestock health care products, and numerous other inputs that are intended for use in certified organic production and processing.



Bio Line

Powder Feeding Line



BioGrow
N-P-K: 7 - 2 - 4



BioBloom
N-P-K: 4 - 9 - 9

Additive Feeding Line



BioEnhancer
Humic Acids & Seaweed Extract

BioGrow

BioGrow is an ‘all-in-ONE’ blend of carefully selected natural materials, formulated specifically for the vegetative growth stage of fast growing plants.

Essential nutrients are provided for superior growth, both readily available for the plant and slowly releasing to supply all nutrients over a period of 8 weeks.

During vegetative growth, plants require higher amounts of Nitrogen. Nitrogen makes the cells divide and multiply, which is the reason that plants need higher amounts of it during the vegetative growth stage when leaf and root development is at its peak.

DID YOU KNOW?

Nitrogen is considered a mobile nutrient inside the plant, which means that the plant can transport it to where it is needed. This mobility is the reason that the first signs of a Nitrogen deficiency occur in older leaves. The plant takes available Nitrogen from older cells, in order to grow new ones.



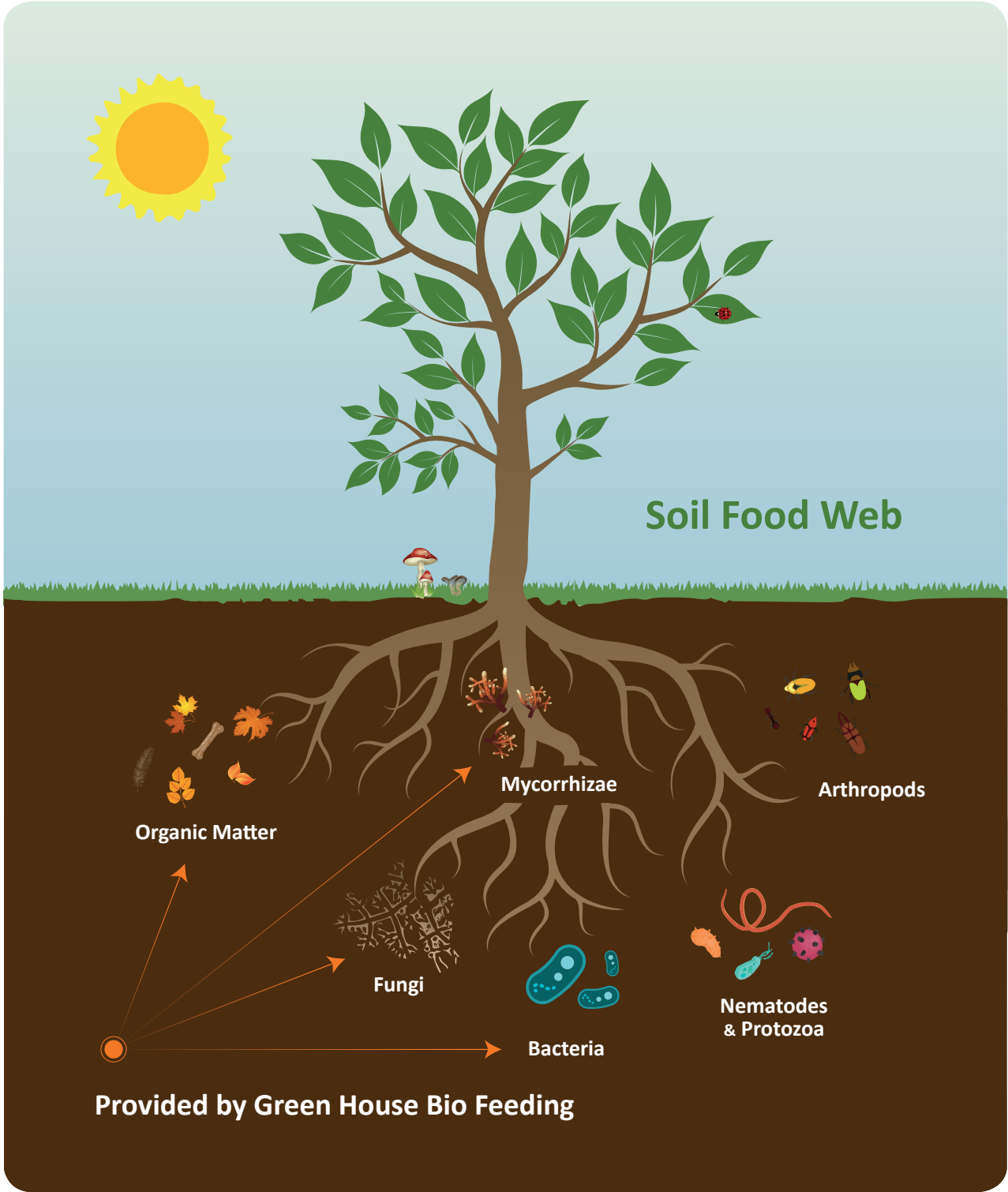
GUARANTEED ANALYSIS

Total Nitrogen (N)	7%
7% Water Insoluble Nitrogen	
Available Phosphate (P ₂ O ₅)	2%
Soluble Potash (K ₂ O)	4%
Calcium (Ca)	5.9%
Magnesium (Mg)	2.7%
Sulfur (S)	2.5%
Iron (Fe)	0.1%

Derived from: bone meal, barley germ, Magnesium sulfate, horn meal, feather meal, sugar beet vinasse, limestone, canola meal.



Mycelium can appear on top of the substrate. It improves microbial life inside the substrate and will not harm humans, animals or plants. Fungi is the main agent of the decomposition of organic matter such as simple sugars, amino acids, etc. It solubilizes minerals that are not initially available to plants.



Soil Food Web

N-P-K: 7-2-4

0.28lb
1.1lb
2.2lb
5.5lb
55lb

125g
500g
1Kg
2.5Kg
25Kg

0.28lb
1.1lb
2.2lb
5.5lb
55lb

125g
500g
1Kg
2.5Kg
25Kg

BioBloom

BioBloom is an 'all-in-ONE' blend of carefully selected natural materials, formulated specifically for the flowering and fruit production.

Essential nutrients are provided for excellent flower and fruit production, both readily available for the plant and slowly releasing to supply all nutrients over a period of 8 weeks.

BioBloom is a unique product, supplying adequate amounts of macro- and micronutrients in the most efficient way. Our extensive R&D and scientific research allowed us to create a product that provides high amounts of phosphorus in a natural form.

DID YOU KNOW?

Phosphorus is providing the energy to the plant to sustain growth. Signs of a Phosphorus deficiency are stunted growth and bluish green leaves. As with Nitrogen, symptoms first appear in older leaves indicating that Phosphorus is also mobile in plants and can be moved to where it is needed the most.



GUARANTEED ANALYSIS

Total Nitrogen (N)	4%
4% Water Insoluble Nitrogen	
Available Phosphate (P ₂ O ₅)	9%
Soluble Potash (K ₂ O)	9%
Calcium (Ca)	5.8%
Magnesium (Mg)	1.8%
Sulfur (S)	3.24%

Derived from: bone meal, Magnesium sulfate, feather meal, sugar beet vinasse, canola meal, Dicalcium phosphate.



Mycelium can appear on top of the substrate. It improves microbial life inside the substrate and will not harm humans, animals or plants. Fungi is the main agent of the decomposition of organic matter such as simple sugars, amino acids, etc. It solubilizes minerals that are not initially available to plants.



N-P-K: 4-9-9

BioEnhancer

BioEnhancer can be used as a multi purpose tool for every organic cultivator. Its main purpose is to enhance the uptake of nutrients and to act as a soil conditioner but it can also be used very effective for rooting of cuttings, germination of seeds and as a foliar spray to stimulate plant growth.

Humic and Fulvic Acids

Humic and Fulvic Acids are sourced from leonardite, which acts as a soil conditioner, biocatalyst and bio stimulant. They also help chelate nutrient compounds, thus enhance the uptake of nutrients by the plant. Especially iron uptake is potentiated, which results in higher chlorophyll and sugar production and improves flavor and nutritional values.

Seaweed extract

Seaweed extract (kelp) contains 62 trace elements, amino acids and natural phytohormones. It works as a soil conditioner, promotes stronger and vigorous development of roots and improves the germination rate of seeds. Additionally it enhances the uptake of nutrients and water, conditioning plants to better handle stress.



GUARANTEED ANALYSIS

Total Nitrogen (N)	1%
1% Water Soluble Nitrogen	
Soluble Potash (K ₂ O)	8%
ALSO CONTAINS NONPLANT FOOD INGREDIENTS, SOIL AMENDING INGREDIENTS, BENEFICIAL BACTERIA AND FUNGI.	
Humic acid as potassium humate	70%
Seaweed extract	10%
Trichoderma harzianum T50	10 ⁶ cfu/g
Bacillus amyloliquefaciens FZB 24	10 ⁷ cfu/g

Derived from: Leonardite and Ascophyllum nodosum

BENEFITS OF BIOENHANCER: This product improves the physical, chemical and biochemical characteristics of the soil. BioEnhancer can be applied throughout the cycle of a plant as a root drench or foliar spray.



N-P-K: 1-0-8

How to use

BioGrow - BioBloom

BioGrow and BioBloom need to be mixed into the substrate or applied as top dressing. It can be used in soil, coco or similar substrates.

The nutrients will be released constantly during a period of 8 weeks.

Dosage BioGrow

Vegetative growth: 12 - 18g/Gal substrate

Mother plants: 8 - 12g/Gal substrate every two months (as top dressing)

If the growth period is less than 8 weeks or the substrate is pre-fertilized, doses should be decreased. Use half dosage for seedlings and young plants (2 - 3 weeks old).

If the growth period is longer, a second application is required (as top dressing).

Dosage BioBloom

8 weeks flowering period: 1st week = 12 - 18g/Gal substrate

10 weeks flowering period: 1st week = 8 - 12g/Gal substrate
3rd week = 4 - 5g/Gal substrate

12 weeks flowering period: 1st week = 12 - 18g/Gal substrate
5th week = 4 - 5g/Gal substrate

Dosage recommendations can be decreased for light feeder plants and pre-fertilized soil or increased for heavy feeders.

BioEnhancer

Mix BioEnhancer with water and apply to the plants when watering, once every two weeks.

Can be used during the whole cycle (vegetative growth and flowering).

Use the Enhancer after transplant for better root development.

Use within 24 hours after mixing!

Dosage BioEnhancer

Adding the Enhancer to water will increase the pH-value to around 8.5.

When using as foliar spray or as a drench on soil it is not necessary to adjust the pH down.

When using as a drench for coco, we recommend to adjust the pH before adding Enhancer to 5.0.

Media Drench:

2 - 4g per US Gallon water every two weeks.

Rooting cuttings:

Soak/drench the medium with 1 - 3g per US Gallon water before placing the cutting.

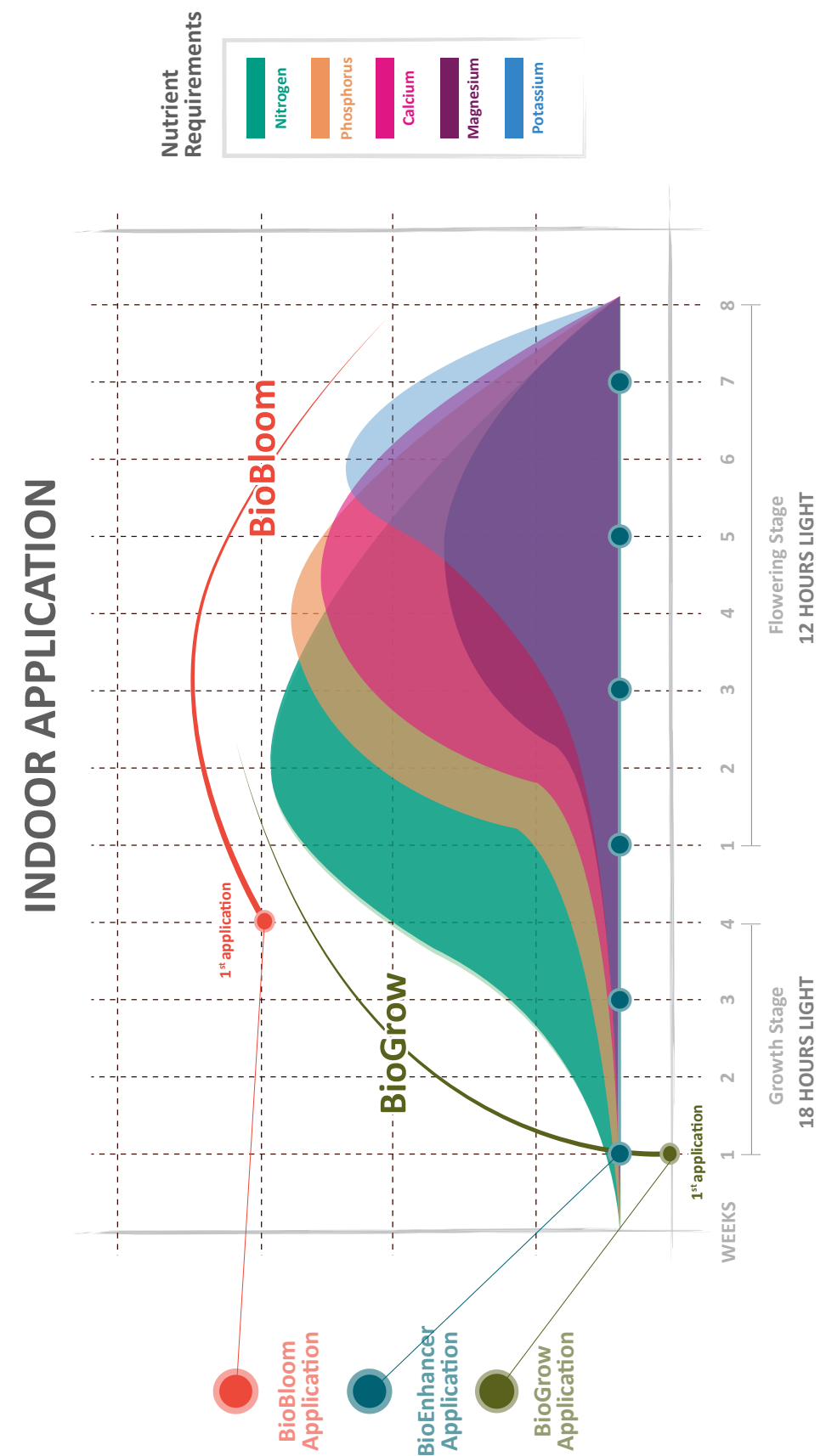
Germinating seeds:

Soak the seeds in a solution with 2 - 3g per US Gallon water for 8 - 12 hours.

Foliar application:

Mix 3 - 5g with 2.5 US Gallon water and apply once every two weeks during vegetative stage.

For mother plants, apply 24 hours before taking new cuttings.



A second application of BioBloom is only necessary for plants with a long flowering time.

Nutrient Requirements

Nitrogen
Phosphorus
Calcium
Magnesium
Potassium

BioBloom
1st application
2nd application

BioGrow
1st application
2nd application

BioEnhancer
1st application

BioBloom Application
BioEnhancer Application
BioGrow Application

MONTHS
Northern Hemisphere >
Southern Hemisphere >



www.greenhousefeeding.com