

### **COMMERCIAL PROGRAM**

The Age Old Commercial products and program are the culmination and synthesis of years of research on optimal nutrition for cannabis crops. With products and technologies based on optimal mineral nutrition, and organic-based additives, the Age Old Commercial program provides both high performance and simplicity. With just four concentrate tanks (and their respective injectors), growers from 500 ft² to 500,000 ft² can experience the benefits of the Age Old Commercial program, at a price that will almost certainly fit into most budgets.

## COMMERCIAL BASE

9-8-38

Guaranteed Analysis							
Total Nitrogen (N)	Manganese (Mn)						
Available Phosphate (P <sub>2</sub> O <sub>5</sub> )8.0%	Molybdenum (Mo)						
Soluble Potash (K <sub>2</sub> O)	Zinc (Zn)						
Copper (Cu)       0.05%         0.05% Chelated Copper       0.65%         Iron (Fe)       0.65%	Derived from: potassium nitrate, monopotassium phosphate, boric acid, copper EDTA, iron DTPA, manganese EDTA, sodium molybdat zinc EDTA						

Age Old Commercial Base is designed to deliver the right amount of nutrients at the right stage of the crop, and is designed to be used during both the vegetative and reproductive stages of the crop. It efficiently delivers nitrogen (N), phosphate (P), potassium (K), boron (B), copper (Cu), iron (Fe), manganese (Mn), molybdenum (Mo), and zinc (Zn). All of the micronutrients are chelated to ensure they remain available to the plant regardless of the soil pH. In addition to this, all of the inputs are tested for heavy metals to ensure that only the purest minerals are sourced. Finally, Commercial Base is blended and micronized to ensure that it enters into solution without any issue.

### **CALCIUM NITRATE**

### 

### MAGNESIUM SULFATE

)	Guaranteed Analysis						
	Sulfur (S)	Magnesium (Mg)9.8%					
	Derived from: magnesium sulfate						

Calcium nitrate and magnesium sulfate are perhaps the most efficient ways to deliver nitrate-based nitrogen (N), calcium (Ca), sulfur (S), and magnesium (Mg) to plants. With Age Old Commercial Grow and Bloom providing all of the other high purity minerals, the combination of these products forms the base of the program, with no additional cationic or anionic waste—and therefore no unnecessary osmotic stress on the plants that reduce growth and yields.

### COMMERCIAL BIO

1 - 0 - 1

### **GUARANTEED ANALYSIS**

 Total Nitrogen (N)
 1.0%

 1.0% Water Soluble Nitrogen
 1.0%

 Soluble Potash (K,O)
 1.0%

Derived from: soy protein hydrolysate, potassium hydroxide

# COMMERCIAL SILICON

### CONTAINS NON-PLANT FOOD INGREDIENTS

Soil Amending Ingredients:

5% Total Active Ingredients

5%......Soluble Silicon (Si) (Derived From Colloidal Silica)

95% Total Inert Ingredients

# COMMERCIAL MICROBES

#### CONTAINS NON-PLANT FOOD INGREDIENTS

### Soil Amending Ingredients:

1% Total Active Ingredients

BACTERIA: Bacillus licheniformis: 1,000,000 cfu/g; Bacillus pasteurii: 1,000,000 cfu/g; Bacillus subtilis: 1,000,000 cfu/g; Paenibacillus azotofixans: 1,000,000 cfu/g

ENDO MYCORRHIZAE: Glomus intraradices: 1 prop/g; Glomus mosseae: 1 prop/g; Glomus aggregatum: 1 prop/g; Glomus monosporum: 0.05 prop/g; Gigaspora margarita: 0.05 prop/g

99% Total Inert Ingredients

**Age Old Commercial Bio** is the combination of distinct, targeted technologies. The foundation of the product is a proprietary negatively-charged polymerized amino acid that adsorbs cationic (positively-charged) minerals in the soil and in the solution, and prevents their interaction with anionic (negatively-charged) minerals—which prevents their precipitation. This increases the overall nutrient availability to the plant, which increases the opportunity for yields. Commercial Bio also contains specific amino acids that improve soil conditions for root growth, and increased yields.

Age Old Commercial Microbes is a proprietary combination of beneficial bacteria and endo mycorrhizae. Commercial Microbes can be used during all growth stages to improve mycorrhizal and bacterial associates with plants, and helps optimize overall plant mass and yield. With many indoor grow environments being relatively sterile, Commercial Microbes can help bring an increase in performance. Many growers either use the product continuously with the daily nutritional program, or use Commercial Microbes on the days of the week where the soil media is flushed with just plain irrigation water.

**Age Old Commercial Silicon** is a stabilized dispersion of silica nanoparticles that help optimize conditions for resistance to abiotic stresses in plants. Unlike other silicon-based products, in dilution, it is tank-mix compatible with other fertilizer inputs, and won't precipitate and clog irrigation equipment. It carries a lower pH than most silicon products, and is a low use-rate product. Because of this, it won't change the overall pH of the fertilizer solution.

### **CONTINUOUS LIQUID FEED**

#### Injection Ratio

	No Injector	1:25	1:100	1:200
Commercial Base	4.0 g	100.0 g	400.0 g	800.0 g
Calcium Nitrate	4.0 g	100.0 g	400.0 g	800.0 g
Magnesium Sulfate	2.5 g	62.5 g	250.0 g	500.0 g
Commercial Bio	8.0 mL	200.0 mL	800.0 mL	1600.0 mL
Commercial Microbes	0.29 g	7.13 g	28.5 g	57.0 g
Commercial Silicon	0.4 mL	10.0 mL	40.0 mL	80.0 mL

Suggested rates per gallon.

Age Old Commercial rates are based on a commercial lighting program of 25 watts per square foot. Nutrients may need to be decreased if the light intensities are lower, and increased if the light intensities are higher. If lighting intensities are unknown, it is always preferable to start with a lower rate, and increase the rate over time if needed.