



try once, always use...

**BIOMASS
PRODUCTS**

WHAT IS **BIOMASS** AND WHY **BIOMASS** ?

BIOMASS

Raw Material for Agriculture

Biomass which includes rich Monomers, are perfect source of essential nutrients for plants & trees. Biomass is a part of cell walls, builds new organic construction in tissues. Mostly biomass are accepted as source of organic carbon and organic nitrogen. But this understanding is missing. There are 5 groups in content of biomass which are * Amino Acids * Nucleotides * Lipids * Sugars * Organic Acids

Difference between Molasses & Vinasse and Biomass

Molasses & Vinasse, Waste of washing process and include very low Amino acid

* **Biomass**, includes total 20-50% Alpha Amino Acids, 10-40% Free Amino Acids

Molasses & Vinasse, are by product of the sugar factory, in structure of Molasses & Vinasse is consisted of carbohydrate, sugar and very low other nutrients.

* **Biomass**, consists of essential nutrients, amino acids, vitamins, activators, organic acids, sugar

Molasses & Vinasse, include humic and fulvic acids which are mostly available for soil treatment instead of enrich

* **Biomass**, feeds useful soil microorganisms and plant directly.

* **Biomass**, are formulated to enlarge the cells, so Biomass aims to feed cell and includes balanced nutrients, in purpose of biomass.

useful microflora in the soil is composed of cells. It brings a new perspective for fertigation that is feeding cells of plant. It gives us opportunity to feed plant cells directly, plants will spend less energy but accelerates plant reactions for life cycle.

PRODUCT NAME: **BIOMASS AMIN 22**PHYSICAL FORM: **LIQUID****MAJOR INGREDIENT (W/W)**

Dry matter	40 %	Phosphor	1,10 %
Organic substance	35 %	Potassium	3,83 %
Organic carbon	15%	Sulphur	0,20 %
Alpha chiral carbon	12 %	Calcium	0,22 %
Total amino acids	20 %	Magnesium	0,15 %
Free L-alpha aminoacid	6-8 %	Manganese	0,03 %
Short chain peptides	1,2 %	Zinc	0,002 %
Oligopeptides	4 %	Zinc EDTA	0,001 %
Beta aminoacids	0,05 %	Iron	0,033 %
Gamma aminoacids	0,09 %	Iron EDTA	0,001 %
Delta S-aminoacids	0,01 %	Copper	0,03 %
Nonproteinogenic aminoacids	0,02 %	Copper EDTA	0,008 %
Saccharification crops	6-9 %	Boron	0,1 %
Pseudo ferments	0,01 %	Molibdenium	0,004 9%
Nuclobases	0,12 %	Vanadium	0,0005 %
Glycine betaine	4-5 %	Selenium	0,002 %
Monomer sugars	1,40 %	Sodium	0,45 %
PolyPhenois	3,50 %	Chlor	0,67 %
Poliols	0,21 %		
Lipides	0,19 %		
Organic acids	4,00 %		
Enzymes	0,01 %		
Vitamins	0,05 %		

FREE AMINOACID COMPOZITION (W/W)

Alanine	0,92%	Leucine	0,77%
Arginine	1,15%	Lysine	0,62%
Aspartic Acid	0,23%	Methionin	0,18%
Asparagine	0,05%	Phenylalanine	0,05%
Cystein	0,12%	Proline	0,46%
Glutamic Acid	1,75%	Serine	0,57%
Glutamine	0,01%	Threonine	0,48%
Glycine	1,08%	Tryptophan	0,01%
Histidine	0,05%	Tyrosine	0,02%
Isoleucine	0,24%	Valine	0,33%



PRODUCT NAME: **BIOMASS AMIN 22**PHYSICAL FORM: **LIQUID****MAJOR INGREDIENT (W/W)**

Dry matter	70 %	Phosphor	1,80 %
Organic substance	55 %	Potassium	2,23 %
Organic carbon	25%	Sulphur	1,05 %
Alpha chiral carbon	24 %	Calcium	0,34%
Total amino acids	40 %	Magnesium	0,12%
Free L-alpha aminoacid	22-24%	Manganese	0,04 %
Short chain peptides	3,51%	Zinc	0,03%
Oligopeptides	11%	Zinc EDTA	0,01%
Beta aminoacids	0,43 %	Iron	0,045 %
Gamma aminoacids	0,30 %	Iron EDTA	0,06 %
Delta S-aminoacids	0,09 %	Copper	0,13 %
Nonproteinogenic aminoacids	3,10 %	Copper EDTA	0,08 %
Saccharification crops	4,28 %	Boron	0,01 %
Pseudo ferments	1,00%	Molibdenium	0,09%
Nuclobases	1,90 %	Vanadium	0,005 %
Glycine betaine	3,00 %	Selenium	0,012 %
Monomer sugars	4,45 %	Sodium	0,35 %
Polisols	1,88 %	Chlor	0,49 %
Lipides	0,42 %		
Organic acids	6,00 %		
Enzymes	0,08%		
Vitamins	0,2 %		
Antibiosis factors	0,10 %		

FREE AMINOACID COMPOZITION (W/W)

Alanine	2,45%	Leucine	1,51%
Arginine	2,90%	Lysine	1,99%
Aspartic Acid	0,55%	Methionin	0,32%
Asparagine	0,06%	Phenylalanine	0,30%
Cystein	0,20%	Proline	2,27%
Glutamic Acid	4,58%	Serine	2,31%
Glutamine	0,01%	Threonine	0,85%
Glycine	2,93%	Tryptophan	0,02%
Histidine	0,10%	Tyrosine	0,05%
Isoleucine	0,79%	Valine	0,40%



PRODUCT NAME: **BIOMASS AMIN 12**

 PHYSICAL FORM: **LIQUID**
MAJOR INGREDIENT (W/W)

Dry matter	62 %	Phosphor	2,01 %
Organic substance	45 %	Potassium	3,00 %
Organic carbon	24 %	Sulphur	0,77 %
Alpha chiral carbon	18 %	Calcium	0,36 %
Total amino acids	32 %	Magnesium	0,10 %
Free L-alpha aminoacid	8,00 %	Manganese	0,04 %
Short chain peptides	4,00 %	Zinc	0,02 %
Oligopeptides	3,00%	Zinc EDTA	0,01%
Beta aminoacids	0,12 %	Iron	0,032 %
Gamma aminoacids	0,24%	Iron EDTA	0,02 %
Delta S-aminoacids	0,02 %	Copper	0,11 %
Nonproteinogenic aminoacids	1,45 %	Copper EDTA	0,08 %
Saccharification crops	8,55 %	Boron	0,07 %
Pseudo ferments	1,78 %	Molibdenium	0,07 %
Nuclobases (Adenine, Guanine)	0,42%	Vanadium	0,008 %
Glycine betaine	2,54 %	Selenium	0,001 %
Monomer sugars	4,70 %	Sodium	0,18 %
Polisols	0,55 %	Chlor	0,37 %
Lipides	0,40 %		
Organic acids	6,22 %		
Enzymes	0,06 %		
Vitamins	0,1 %		
Antibiosis factors	0,78 %		

AMINOACID COMPOZITION (W/W)

Alanine	1,11%	Leucine	1,34%
Arginine	0,92%	Lysine	0,83%
Aspartic Acid	0,10%	Methionin	0,18%
Asparagine	0,05%	Phenylalanine	0,33%
Cystein	0,14%	Proline	1,23%
Glutamic Acid	2,48%	Serine	0,88%
Glutamine	0,01%	Threonine	0,39%
Glycine	1,11%	Tryptophan	0,02%
Histidine	0,10%	Tyrosine	0,01%
Isoleucine	0,49%	Valine	0,23%

ORGANIC ACID COMPOZITION (W/W)

Acetate	0,32%	Oxalic Acid	0,13%
Lactic Acid	2,03%	Malic Acid	0,08%
Propionic Acid	0,45%	Succinic Acid	0,19%
Butyric Acid	0,21%	Citrate	0,44%
Pyruvic Acid	0,24%	Isocitrate	0,09%
Valeric Acid	0,58%	cis-Acotinate	0,07%
Caproic Acid	0,45%	trans-Acotinate	0,08%
Tartaric Acid	0,10%	Ethanoic Acid	0,09%

MONOMER SUGARS COMPOZITION (W/W)

Mannitol	0,21%	Ribose	0,23%
Sorbitol	0,14%	Fructose	0,25%
Galactinol	0,04%	Glucose	0,28%
Arabitol	0,08%	Saccharose	0,92%
Arabinose	0,09%	Trehalose	1,25%
Galactose	0,24%	MOS	0,58%
Mannose	0,55%	GOS	0,02%
Lactose	0,76%	FOS	0,25%

